codex alimentarius commission

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

WORLD HEALTH ORGANIZATION

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ALINORM 79/16

CODEX ALIMENTARIUS COMMISSION
Thirteenth Session, 3-14 December 1979

REPORT OF THE TENTH SESSION OF THE CODEX COMMITTEE ON PROCESSED MEAT AND POULTRY PRODUCTS
Copenhagen. 20 - 24 November 1978

INTRODUCTION

1. The Codex Committee on Processed Meat and Poultry Products held its Tenth Session in the Conference Room of the WHO Regional Office in Copenhagen, Denmark, from 20 to 24 November 1978 by courtesy of the Government of Denmark. The participants were welcomed on behalf of the Danish Ministry of Agriculture by Dr. V. Enggaard, Chairman of the Committee. The Chairman noted with satisfaction that several countries were represented at the present session for the first time.

2. The Committee was also welcomed by Dr. M. Postiglione, Acting Regional Director of WHO. He outlined briefly those aspects of WHO's programme relevant to the European Region and stressed the interest which his Organization attached to the work of the Committee.

3. The Chairman drew the attention of the Committee to the discussion which had taken place at the 12th Session of the Codex Alimentarius Commission. It had been agreed to expand the terms of reference of the Committee to include processed poultry products. The name of the Committee had been amended accordingly (ALINORM 78/41, paras 353-356).

4. The Chairman also drew attention to the decision of the Codex Alimentarius Commission to make the work of Codex more relevant to developing countries by amending the Procedure for the Elaboration of World-wide Codex Standards. This would allow for specific comments from countries on the implications which the proposed draft standards might have for their economic interests. It required that the Commission when making decisions at Step 5 of the Codex Procedure should take into account comments submitted by governments on the possible economic impact of any of the provisions of the standards.

5. Representatives from the following 28 countries were present:

Argentina	France	Norway
Australia	Germany, Fed. Rep. of	Poland
Austria	Hungary	Sweden
Belgium	Ireland	Switzerland
Botswana (Observer)	Italy	Thailand
Brazil	Japan	United Kingdom
Canada	Kenya	United States of America
Czechoslovakia	Netherlands	Yugoslavia
Denmark	New Zealand	
Finland	Nigeria	

Observers from the following international organizations participated at the session:

- Centre de liaison des industries de traitement des algues Marines (CLITAM)
- Centre de liaison des industries transformatrices de viande de la Communauté Européenne (CLITRAVI)
- European Economic Community (EEC)
- International Commission on Microbiological Specifications (ICMSF)
- International Organization of Consumers Unions (IOCU)
- International Standardization Organization (ISO)

A list of participants, including officers from the Food and Agriculture Organization and the World Health Organization, is given as Appendix I to this Report.

ADOPTION OF THE AGENDA

6. The Committee adopted the Provisional Agenda without change.

ELECTION OF RAPPORTEURS

7. The Committee appointed Mr. I. Adams (UK) and Mr. M. Gambon (France) as Rapporteurs of the Session.

REVIEW OF MATTERS RELEVANT TO THE CODEX COMMITTEE ON PROCESSED MEAT AND POULTRY PRODUCTS AS DISCUSSED BY THE CODEX ALIMENTARIUS COMMISSION (12TH SESSION) AND VARIOUS CODEX COMMITTEES (CX/PMPP 78/2)

8. The Committee noted that the Commission had adopted the Standards for Cooked Cured Ham, Pork Shoulder and Chopped Meat at Step 8 of the Procedure as Recommended International Standards. The Commission had amended the standards for Cooked Cured Ham and Pork Shoulder by including in addition to an absolute minimum percentage meat protein on fat-free basis (PFF) figures for average percentage meat protein on fat-free basis: Ham $\geq$ 18%; and Pork Shoulder $\geq$ 17.5% PFF. It had thought that this was not a substantive change to the standards, provided that the figures were not associated with a mandatory zonal sampling system (paras 335-347). Other matters of interest would be dealt with under appropriate agenda items.

CONSIDERATION OF "ANNEX B", MEAT PRODUCTS HEAT TREATED PRIOR TO PACKAGING (ALINORM 78/16, Appendix V)

9. The Committee noted that the Commission at its 12th Session had advanced the document to Step 6 of the Procedure but had not agreed to the omission of steps as proposed by the Committee since it considered that several substantive comments had been made by governments. The Committee considered the document at Step 6 in the light of these and other government comments which had since been received (CX/PMPP 78/3 and Add.1).

10. During the discussion of the document it became evident that certain terms used gave rise to misunderstanding. In particular in the opinion of many delegations the description "open pack meat products" for meat products heat treated prior to packaging could be misunderstood. It was noted that the provision on packaging (g) could also be misinterpreted.

11. There was a detailed discussion of all provisions of the paper as a result of which it was decided to request representatives of the delegations of Denmark, France, Federal Republic of Germany, United Kingdom and a representative of the Codex Secretariat, to review the document.

12. The Committee agreed to the recommendations of the ad hoc working group to delete the reference to open pack meat products in the title and to make consequential changes throughout the document. It further agreed to amend the provision on packaging (g) to reflect that slicing, cutting and primary packaging should preferably be carried out as a combined process. The Chairman thanked the ad hoc working group on behalf of the Committee.

Status of the Document

13. The Committee agreed to advance the document "Annex B" of the Recommended International Code of Hygienic Practice for Processed Meat Products to Step 8 of the Procedure for consideration by the Commission at its 13th Session. The revised document is attached as Appendix II to this Report.

RECONSIDERATION OF SAMPLING AND INSPECTION PROCEDURES FOR MICROBIOLOGICAL EXAMINATION OP PROCESSED MEAT PRODUCTS AT STEP 4 (CX/PMPP 78/4).

14. The Committee considered the above document as revised by the Danish Secretariat in the light of observations made by the Second Joint FAO/WHO Expert Consultation on Microbiological Specifications for Food. The representative of the International Commission on Microbiological Specifications for Foods (ICMSF) - author of the original document- acted as rapporteur.

15. In introducing the document the ICMSF representative reminded the Committee of his statement at the 9th Session when he stressed the importance of in-plant inspection and control in achieving suitable microbiological quality of end-products. The sampling plan contained in the present document was to be used for investigational purposes only, as for instance in case of disputes.

16. It was noted that the preface of the document only covered shelfstable products. The representative of ICMSF undertook to revise the text to include non-shelfstable products (Chapter B) and further to add to the document a description of the action to be taken in the case of a product failing to meet the criteria (EC/Microbiol/77/Report 2, Annex II, Chapter 5).

17. The Committee agreed to incorporate into the text of the document a number of proposals made by governments in their written comments. There was an extended discussion on a proposal to assess the presence of thermophilic microorganisms.

18. It was pointed out that for cured products such an examination was not necessary. For uncured products, particularly for those intended for consumption in tropical countries several delegations were of the opinion, however, that control for thermophilic micro-organisms was indicated. The Committee noted that in previous discussions it had been agreed not to require this examination. It was decided to request governments to comment specifically on this matter.

19. The representative of ICMSF proposed that when there was concern over the possible presence of thermophilic micro-organisms in uncured products 50% of the sample (i.e. 100 containers) could be examined in this respect. This would, however, reduce the information obtainable from the usual procedure for the examination of mesophilic bacteria.

20. The Committee noted that the Codex Committee on Food Hygiene was elaborating a Code of Hygienic Practice for Low Acid Canned Food and Products Packed in Semi-rigid Containers and Flexible Pouches. It was agreed that where appropriate the present document would be harmonized with this Code.

Status of the Document

21. The Committee agreed to advance the document to Step 5 of the Procedure. The revised document is attached as Appendix III to this Report.

ASSESSMENT OF MEAT PRODUCTS ON THE BASIS OF COLLAGEN-FREE PROTEIN (CX/PMPP 78/6)

22. The Committee considered the above working paper which had been prepared by the delegation of the Federal Republic of Germany (Rapporteur) in collaboration with the delegations of Austria and Switzerland. The delegation of the United Kingdom informed the Committee that it expected to make available the results of an independent examination in time for the preparation of a future document.

23. The Committee when considering the subject at its 9th Session had requested governments to make available to the working group comparative information on the quantity of protein on a fat-free basis (PFF) and collagen-free meat protein present in pork shoulder, together with related methods of analysis (ALINORM 78/16, para 57). A number of governments had sent in data or had provided relevant information.

24. A number of delegations supported the view expressed at earlier sessions that the measurement of collagen-free meat protein in meat products - especially comminuted meat products - could be a useful tool for assessing the value of the product. It was noted, however, that the data presented was so far rather restricted and did not provide a firm basis on which to draw final conclusions.

25. The Committee, following a full discussion, decided not to continue work at present on this particular method of evaluating the quality of meat products. It agreed, however, that when reviewing at a future session such standards as had been completed or when embarking on the elaboration of new standards, to reconsider with respect to such standards the matter in the light of data available at that time.

26. It was noted that ISO had recently published an analytical reference method (IS 3496) for the "Determination of L(-) hydroxyproline content" which could be useful if

further work was undertaken. The Chairman thanked the members of the working group for the preparation of the informative background document.

CONSIDERATION OP HYGIENIC AND MICROBIOLOGICAL REQUIREMENTS FOR PRY AND SEMI-PRY SAUSAGES (CX/PMPP 78/7 + Appendices 1 and 2)

27. The Committee had before it two documents prepared by the delegation of Italys: (i) "Proposed Draft Standard for Typical Italian Salame and Salame Italian Style"; and (ii) "Microbiological Limits and Methods of Analysis for Dry and Semi-Dry Sausages and other Products". It also had available a document prepared jointly by the USA and Italy: "The Staphylococcal Enterotoxin Problem in Fermented Sausages".

28. The Committee was reminded of its earlier decisions not to elaborate standards for this particular group of products even though there was an extensive international trade in them. Because of the great variations in composition and the wide range of traditional and near traditional processing techniques standardization had not appeared feasible. The present documents represented an effort to seek a common approach regarding hygienic requirements and good manufacturing procedures.

29. It was noted that the traditional product made by the slow low-temperature fermentation process did not seem to present notable health hazards. However, the more recently developed processes requiring comparatively short processing times, often combined with higher fermentation temperatures and sometimes with no addition of starter culture were potentially of public health concern due to the possibility of formation of staphylo-coccal enterotoxin during the process.

30. The Committee decided to recommend to the Commission that a Code of Hygienic Practice for Dry and Semi-Dry Sausages be elaborated. The Code would cover good manufacturing practices as well as microbiological specifications.

31. It was agreed to request governments to provide data, in particular concerning international trade in order to judge whether the criteria for the establishment of work priorities were met. Relevant information should reach the Danish Secretariat not later than 1st September 1979. The delegations of Italy and the USA agreed to continue their collaboration in the development of the Code. The Chairman thanked the two delegations for their efforts.

MECHANICALLY DEBONED MEAT AND LOW TEMPERATURE RENDERED MEAT (CX/PMP 76/7 and CX/PMPP 78/9)

32. The Committee noted that the Commission at its 12th Session had agreed that it fell within the Terms of Reference of this Committee to undertake work on mechanically deboned meat and low temperature rendered meat (ALINORM 78/41, paras 358-359). The Committee had available government comments on the above documents (CX/PMPP 78/8 and Appendices 1, 2 and 3).

33. The delegation of Sweden proposed that the title of the Code should read "Mechanically Deboned Meat and Poultry Products"; however, the Committee did not take up the proposal to include the word "products" in the title.

34. Several delegations pointed out that to refer to the product under consideration as "mechanically deboned" was misleading and after some discussion the Committee agreed that the French and English text could be best harmonized by referring to the product as "mechanically separated" (séparée mecaniquement).

35. The representative of the EEC informed the Committee that all types of minced meat including mechanically separated meat were under consideration and that

proposed hygiene requirements would be published shortly in the Official Journal of the EEC.

36. The Committee agreed to elaborate a code of practice for the production, storage and composition of mechanically separated meat and poultry based on document GX/PMPP 78/9. It reviewed the document in great detail and made a number of changes. In order to make the recommendations contained in the paper more informative a selection of some time/ temperature combinations for storage and transport of bones, carcasses or parts of carcasses which the Committee considered suitable was presented in the text for specific government comments.

37. In order to harmonize the requirements for storage and transport of separated meat with those contained in other international texts a temperature of -18ºC was proposed. The Committee agreed to place the figure in square brackets. The delegations of Australia and New Zealand were of the opinion that a temperature for storage and transport of -12ºC was sufficiently low to prevent bacteriological activity and chemical change during the relatively short periods the product was likely to be kept. Moreover, they pointed out that storage and transport at -18ºC instead of -12ºC increased costs. The delegation of the Netherlands proposed that the frozen mechanically separated meat should not be kept for a period of more than three months. The Committee did not follow this suggestion.

38. The delegation of Austria was of the opinion that microbiological criteria should be included to ensure acceptable quality of the end product. The Committee noted that an FAO/WHO Working Group on Microbiological Criteria for Foods organized by the Codex Committee on Food Hygiene at its 14th Session would meet in Geneva, 20-26 February 1979, to consider further the principles of applying microbiological criteria for foods in general and the relevance of such criteria for chilled raw meat and poultry in particular.

39. The Committee was informed that the Commission at its 12th Session had agreed to the formation of the Working Group, it being understood that subsistence and travel expenses of the participants would be covered by their governments or organizations.

40. The Committee noted that the subject of mechanically separated meat was not a specific item of the Working Group's proposed agenda but could be considered as part of the broad terms of reference of the Working Group, if a background paper on the microbiology of comminuted raw meat was available to its participants. The representative of ICMSF agreed to provide such a paper at an early date.

41. After some discussion the Committee agreed to include a compositional requirement in the document for calcium content as bone could contribute to economic fraud if its level was not restricted. Because of the possible variations of the moisture content of these products it was decided that the calcium content should be expressed as a percentage of dry matter. One delegation proposed a figure of 2.5%. The Committee agreed to place this figure in square brackets in the code.

42. With regard to bone particles the Committee did not agree to a proposal of the delegations of the Netherlands and Sweden to include a dimensional limit (less than 1 mm in the greatest dimension).

43. The Committee agreed to issue the revised document as a Proposed Draft Code of Practice for government comments at Step 3 (see Appendix IV to this Report). It decided not to take up the suggestion of Australia to proceed with work on low

temperature rendered meat. The delegation of Argentina stated that as the documents had not been received in time for discussion between the appropriate authorities in its country it reserved its position with regard to the recommendations and conclusions of the Committee.

PROPOSED DRAFT CODE OF HYGIENIC PRACTICE FOR GAME (CX/PMPP 78/10)

44. The Committee had before it the above Code which had been elaborated by a Working Group set up at its 9th Session in which Argentina, Austria, Federal Republic of Germany, Italy, Kenya, Nigeria and Sudan had participated under the chairmanship of New Zealand.

45. The Committee was informed that at its 12th Session the Commission had agreed that the Proposed Draft Code should receive first consideration by the Committee following which the document would be sent out to governments for comments. The Meat Hygiene Committee, which had been reactivated, would then consider the proposed draft code at Step 4 of the Procedure.

46. In introducing the document the delegation of New Zealand pointed out that the Working Group had defined game as animals which had been killed in the wild and which could not undergo ante-mortem inspection. In the case of feathered game, only whole birds, unplucked and uneviscerated, were covered by the Code.

47. Ensuing the discussion of the Code a number of points were addressed, specific recommendations are presented below.

Scope (Section 1)

48. A proposal to restrict the Section to mammals and to deal with wildfowl later in an annex was not pursued. The Committee agreed, however, to make the scope clearer by referring to "mammals" rather than "animals". It was further agreed to exclude from the scope terrestrial mammals or birds which were herded or kept under the supervision of man and also game which had been processed into meat products. As stated in the report of the 9th Session of the Committee (ALINORM 78/16, para 92) it was the intention of the Code to provide for meat for human consumption which lay outside the definition of meat in the Codes already adopted by the Commission.

Definitions (Section 2)

49. The Committee noted that many of the definitions were derived from the Code of Hygienic Practice for Fresh Meat and/or from the General Principles of Food Hygiene. Since the General Principles had now been revised it was recognized that many of the definitions would have to be brought up to date and it was agreed that this would be taken into account when the Code was revised by the Working Group.

Game (11)

50. The Committee noted that game was usually defined as the live animal and decided to refer to "game meat" when describing the product derived from the game carcasse.

Procurement and Transport of Game Carcasses (Section 3)

Game Areas (18)

51. The Committee noted that the word "cleared" was open to misinterpretation when referring to controlled game areas and changed it to "approved".

Evisceration (22)

52. The Committee did not pursue a proposal to provide for the enclosure of the organs of the carcasse in a plastic bag since it considered that such a practice could allow room for substitution and also lead to more rapid deterioration of the organs.

Carcasse Temperatures (24)

53. The Committee found the first sentence repetitive and removed it. It noted that in the case of large animals the environmental temperature might not assure uniform cooling of the carcasse and amended the paragraph to make it clear that if environmental cooling was not effective and rapid throughout the carcasse, then refrigeration should be used.

Presentation for Inspection (27)

54. It was pointed out that especially for small game the specified maximum period of 72 hours for presenting the game for inspection was too short, small mammals were often held for longer periods at low temperatures.

Inspection and Handling of Game and Game Carcasses in Game Packing Houses (Section 4)

Contamination (46(e)-(f))

55. The Committee noted that some kinds of game were particularly prone to contamination from pesticide residues and other contaminants. In game preserves contamination of game meat could also result from the use of antibiotics and anaboles. Contamination could also arise from the practices of trapping and poisoning game (e.g.rabbits) when treated as vermin.

56. The Committee recognized that these problems existed but thought that most contamination of game covered by the Code was involuntary and extremely difficult to control by inspection. No changes were made to the text as it stood but the Working Group was requested to take observations of delegations into consideration when revising the Code.

Removal of Contamination (46(i))

57. The provision was brought in line with para 25 by including a reference to trimming. The delegation of the Federal Republic of Germany also pointed out that consideration should be given to plucked and eviscerated game birds in the Code. The Committee agreed to bring this to the attention of the Meat Hygiene Committee.

Classification of Game Carcasses (54)

58. The Committee agreed to include provisions for game meat which could be classified as suitable for sale partially eviscerated.

General

59. The Committee noted that sections 5, 6, 7 and 8 were largely drawn from Codes already elaborated and agreed not to consider them in detail.

60. In considering the Code in general, the representative of WHO noted that it did not contain any provisions for certification of game moving in international trade. He was of the opinion that for epidemiological reasons there should be certification both of species and of the region from which they originated. He also thought that in line with some game regulations which cover post-mortem judgement such provisions should

also be included in the Code. He further referred to the parallel development of an international code of principles for ante-mortem and post-mortem judgement of slaughter animals and meat presently under preparation and to be issued shortly for discussion by the Codex Committee on Meat Hygiene.

61. It was also pointed out by delegations that the Code lacked requirements for temperature control in international transport and that the Code should require that furred and feathered game should not be handled simultaneously in the same room and that the freezing of whole carcasses and subsequent thawing and cutting up should be prohibited.

Status of the Code

62. The Committee agreed that the relevant paragraphs of the present report should be attached to a circular letter requesting government comments on the Proposed Draft Code of Hygienic Practice for Game at Step 3 of the Procedure so that governments could take into account the discussion which had taken place in the Committee when formulating their observations. The Working Group would then consider whether it was necessary to revise the Code for consideration by the Codex Committee on Meat Hygiene at Step 4 of the Procedure.

63. The Working Group was reminded that the revised Code of General Principles of Food Hygiene should also be taken into account when amending the Code. The Committee thanked the Working Group for its valuable work.

LABELLING, INCLUDING QUALIFYING DESCRIPTIONS OF PRODUCTS SIMILAR TO THOSE COVERED BY CODEX STANDARDS FOR PROCESSED MEAT PRODUCTS (CX/PMPP 78/12)

64. The Committee had available the above document prepared by the delegation of Denmark and a paper giving the views of the Netherlands. In introducing their paper the delegation of Denmark referred to the discussion which had taken place at the 9th Session of the Committee (ALINORM 78/16, para 100), and subsequent discussions by the Commission at its 12th Session (ALINORM 78/41, paras 508-509).

65. The delegation pointed out that, with regard to some of the standards elaborated by the Committee, products which do not comply with certain requirements of the standards were in existence, both in domestic and in international trade. Taking the Standard for Cooked Cured Hams as an example it pointed out that cooked hams containing brine in an amount to bring the meat PFF-value below an average of 18% were in existence, and that the addition of proteins and other foods also could result in products being outside the scope of the standard. The labels for such cooked hams would have to contain additional qualifying information. As this could involve labelling complications, the elaboration of further guidelines seemed desirable.

66. Some delegations pointed out that it was open to manufacturers to devise names for products which did not conform to the standard. The aim of standardization was to protect both manufacturer and consumer by establishing limits within which a product could be traded under a specific name. In the case of cooked cured ham a product which did not have a PFF of 16.5% could not be traded under the provisions of the standard.

67. The Committee noted that the Commission had considered the general matter of reserved names and qualifying descriptions in the light of a document prepared on the subject by a consultant (ALINORM 78/33) and had decided that in view of its complexity,

and its possible effect on full acceptance under the General Principles of the Codex Alimentarius the question should be referred to the Codex Committee on General Principles. The Committee decided to bring to the attention of the Committee on General Principles the documents prepared by the delegations of Denmark and the Netherlands, deleting "corned beef with cereal" as an example but with special reference to the examples given under "6. LABELLING" in the document.

DATE MARKING OF MEAT PRODUCTS COVERED BY CODEX STANDARDS (CX/PMPP 78/13)

68. The Committee had before it a working paper on the above subject prepared by the Danish Secretariat.

69. The Committee was reminded that the Guidelines for Date Marking of Prepackaged Foods for the Use of Codex Commodity Committees were adopted by the Commission at its 12th Session. The Guidelines instructed Codex Commodity Committees to select the type of date marking applicable to products with which they were dealing and to give first consideration to the date of minimum durability. If this date was not found appropriate another of the types of date marking as defined in Section 3 of the Guidelines should be chosen. Should the Commodity Committee not consider date marking necessary then it should state its reasons to the Codex Committee on Food Labelling.

70. In addition, if the product was to be kept under certain conditions in order to maintain its quality the kind of instructions to be given on the label of the prepackaged product should be decided and additionally storage instructions should also be provided for on the outer containers in order to ensure proper handling during distribution.

71. The Committee considered the question of date marking and storage for the following products:

Canned Corned Beef	(CAC/RS 88-1976)
Luncheon Meat	(CAC/RS 89-1976)
Cooked Cured Ham	(CAC/RS 96-1978)
Cooked Cured Pork Shoulder	(CAC/RS 97-1978)
Cooked Cured Chopped Meat	(CAC/RS 98-1978)

For the purposes of date marking these products could be classified into three categories:

(i) Shelf-stable products
(ii) Perishable prepackaged meat products
(iii) Perishable meat products in distribution containers.

(i) Shelf-stable Products

72. The Committee noted that the Standard for Canned Corned Beef covered only shelf-stable products while the other standards included shelf-stable products and the other two categories. Several delegations pointed out that shelf-stable products had a very long shelf life and a date of minimum durability would be a contradiction in terms and sometimes misleading.

73. The Committee agreed with this point of view and decided not to require date marking on shelf-stable products. The delegations of France, Federal Republic of Germany and Norway informed the Committee that because of their national regulations on the labelling of shelf-stable products they wished to reserve their position.

(ii) Perishable Prepackaged Meat Products

74. Several delegations informed the Committee of the regulations governing such products in their countries. In some cases these took the form of instructions on date marking and storage to the manufacturers and retailers, in others "use by" date of minimum durability and storage information was provided to the consumer.

75. The Committee noted that a number of delegations had the opinion that a date of minimum durability should be required for this category of products and that storage instructions were an indispensable part of the provision. The Committee agreed to require date of minimum durability. Reservations were expressed by the delegations of Australia and New Zealand on the "date of manufacture" and by Sweden on the "use by date". The delegation of Norway reported that in its country a distinction was made between categories of products.

(iii) Perishable Meat Products in Distribution Containers

76. This category was intended for products which were packed in containers not sold directly to the consumer. The Committee noted that this included bulk containers, the labelling, requirements for which were still under discussion in the Codex Committee on Food Labelling. It was agreed that for products under this heading adequate storage instructions should be declared.

77. The Committee agreed to the following requirements for date marking and storage instructions to replace section 6.6 storage Instructions in the "Recommended International Standards for Cooked Cured Ham, Cooked Cured Pork Shoulder, Luncheon Meat and Cooked Cured Chopped Meat:

> 6.6 Date Marking and Storage Instructions
>
> 6.6.1 For prepackaged products which are not shelf-stable, i.e. which may be expected not to keep for at least one year in normal conditions of storage and sale, the date of minimum durability shall be declared together with any special storage conditions upon which the validity of the date depends.
>
> 6.6.2 For products which are not shelf-stable and which are packed in containers not sold directly to the consumer, adequate storage and transport instructions shall be declared.

78. The delegation of Sweden proposed that besides adequate storage instructions date marking should also be required for products falling under category 6.6.2. The type of date marking proposed by Sweden was the use by date. The Committee did not take up the Swedish proposal.

79. The Committee decided to ask the Codex Committee on Food Labelling for their views on the above texts before submitting them for consideration by the Commission. It was noted that should the Commission approve the amendment the procedure laid down in the Procedural Manual of the Commission (4th Edition, p. 30, paras 4 and 5) would be followed.

80. The Committee expressed its appreciation to the Danish Secretariat for its work in preparing the document.

USE OF VEGETABLE PROTEINS IN MEAT PRODUCTS (CX/PMPP 78/14)

81. The Committee was reminded of its earlier discussions on extended meat products (ALINORM 78/16, paras 67-83) and noted that the Commission at its 12th Session had established a Codex Committee on Vegetable Proteins (ALINORM 78/41,

paras 485-507). It further noted that so far no host country for the new Committee had been selected and that therefore work by that Committee would not commence before 1980.

82. In view of the importance of developing regulatory instruments for the use of vegetable proteins in meat products it was agreed that the Committee should not delay further work until the Vegetable Protein Committee had commenced the development of guidelines for the use of vegetable proteins.

83. After some discussion on whether all non-meat proteins or only vegetable proteins should be discussed the Committee agreed that the use of other non-meat proteins in meat products could be considered later.

84. The committee concurred with the recommendations of an ad hoc working group (Australia, Netherlands, United kingdom and USA) that a discussion document should be prepared and sent to government for their views on the following main issues :

(i) To which processed the addition of vegetable proteins should be permitted;
(ii) Levels for replacement and for use technological aid which should be permitted;
(iii) The nutritional implications of the use of, or substitution of meat by, vegetable protein and the nutritional equivalence of different types of vegetable proteins; and
(iv) Labeling requirements which should be laid down for the use of vegetable protein in meat products.

85. The Danish Secretariat in cooperation with the delegations of Denmark, the United Kingdom and the USA undertook to prepare the discussion paper.

86. The delegation of Norway expressed the opinion that there was some doubt as to whether or not the terms of reference of the codex fact been finalized. It emphasized that in any case the development of requirements concerning the use of vegetable proteins (and other non-meat proteins) in meat products was a matter for the codex committee on process Meat and poultry products, and was therefore in favor of this committee addressing itself to the subject.

87. The delegation of Argentina stated that as the background document had not been received in time for discussion between the appropriate authorities in its country it reserved its position with regard to the conclusions of the committee.

FUTURE WORK

88. The committee noted that at its next session it would be dealing with the following matters:

(i) Sampling and Inspection procedures for Microbiological Examination of processed Meat Products;
(ii) Code of Hygienic Practice for Dry and Semi- dry and Sausages;
(iii) Code of Practice for the production, Storage and Composition of Mechanically Separated Meat and Poultry;
(iv) Labeling including Qualifying Descriptions of Products similar to those covered by Recommend International Standards for Processed Meat and Poultry Products;
(v) Guidelines for the Use of Vegetable proteins in Processed Meat and Poultry Products.

OTHER BUSINESS

89. The Committee noted that for several meat components and food additives listed in Step 9 Standards no methods of analysis had so far been listed. The representative of ISO informed the committee of recent development in the Technical Committees and working groups of the organization. The updated list is attached as Appendix V to this Report.

90. This committee was informed that the Codex Committee on Fish and Fishery products was elaborating Codes of practice for some products similar to those under consideration by this committee. It was agreed that where appropriate these documents would be taken into consideration.

DATA AND PLACE OF NEXT SESSION

91. It was noted that the next session of the Committee would in all probability be held towards the end of 1980 in Copenhagen.

1. SUMMARY STATUS OF WORK

Standard/Code/Document	Status (Step)	to be dealt with by	ALINORM/Appendix/ Document
Standard for Canned Corned Beef	9	Governments	CAC/RS 88-1976
Standard for Luncheon Meat	9	Governments	CAC/RS 89-1976
Standard for Cooked Cured Ham	9	Governments	CAC/RS 96-1978 [3/]
Standard for Cooked Cured Pork Shoulder	9	Governments	CAC/RS 97-1978 [3/]
Standard for Cooked Cured Chopped Meat	9	Governments	CAC/RS 98-1978 [3/]
Code of Hygienic Practice for Processed Meat Products	9	Governments	CAC/RCP 12-1976
Meat Products Heat-Treated prior to Packaging (Annex B to Recom. Intern. Code of Hygienic Practice for Processed Meat Products, tiaras 9-13}	8 advanced	13th CAC	79/16, II
Sampling and Inspection Procedures for Microbiological Examination (paras 14-21)	5 advanced	Expert Cons. Microb.Spec./ 13th CAC 11th PMPP	79/16, III
Code of Practice for the Production of Mechanically Separated Meat (paras 32-43)	3 advanced	11th PMPP	79/16, IV
Code of Hygienic Practice for Dry and Semi-dry Sausages (paras 27-31)	-	Governments/ 13th CAC/ 11th PMPP	CX/PMPP 79/.. [3/]
Assessment of Meat Products on the Basis of Collagen-Free Protein (paras 22-26)	-	Further action postponed	
Guidelines for the Use of Vegetable Proteins in Processed Meat and Poultry Products (paras 81-87)	-	11th PMPP	CX/PMPP 79/.. [3/]
Labelling, including Qualifying Descriptions of Products similar to those covered by the Standards elaborated by the Committee (paras 64-67)	-	6th GP 11th PMPP	
Code of Hygienic Practice for Game (paras 44-60)	3	4th MH W.Group [1/]	CX/PMPP 78/10 [2/]
Date Marking and Storage Instructions (paras 68-80)	-	13th FL 13th CAC 11th PMPP	

[1/] Matter to be discussed further by 4th Session of the Codex Committee on Meat Hygiene.

[2/] Distributed in September 1978.

[3/] To be distributed in due course.

2. Work undertaken by various countries/organizations

2.1 Code of Hygienic Practice for Dry and Semi-dry Sausages:

- USA in collaboration with Italy (see para 31 of the Report).

2.2 Microbiological Requirements of Comminuted Raw Meat:

- ICMSF (see para 40 of the Report).

2.3 Discussion Paper on Use of Vegetable Proteins in Processed Meat and Poultry Products:

- Danish Secretariat in collaboration with Denmark, United Kingdom and USA (see para 85 of the Report).

3. Request for Special Comments

Governments are requested to comment specifically on the matters referred to in paragraphs 31, 36-37 of this Report.

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APPENDIX II

PRESERVATION OF MEAT PRODUCTS HEAT TREATED PRIOR TO PACKAGING

(Advanced to Step 8)

(Annex B of Code of Practice for Processed Meat Products (Ref. No. CAC/RCP 12-1976))

a. In establishments in which meat products are heat treated prior to packaging a chill-room should be available for holding raw unprocessed meat on its reception and for storing boned, cut or otherwise prepared raw unprocessed meat which is not transferred directly to the sections in which it is cooked or otherwise processed.

b. These meat products should be heat treated, handled subsequent to heat treatment and packaged in such a way that contamination is kept to a minimum so that they present no public health hazard and will withstand spoilage under the conditions of handling, storage, transport and sale indicated on the label. Particular care must be taken to prevent cross-contamination from raw unprocessed meat, preferably by physical separation of processing areas where exposed processed heat treated meat products are handled.

c. The temperature and duration of the cooking process for these heat treated meat products should be such that the heat treatment alone or in combination with other preserving processes protects public health.

d. On arrival in the cooking section the prepared products should be placed in the cookers without delay. Cooking processes should be supervised by technically competent personnel and be subject to check by the Controlling Inspection Authority. Cooking operations should be controlled and also monitored by suitable and accurate recording devices. Processing records adequate to identify the processing and history of each batch of products should be kept by the management and made available to the Controlling Inspection Authority.

e. There should be adequate means for rapidly chilling in an hygienic manner any cooked meat product to an internal temperature of not more than 7ºC (45ºF). Water used for cooling any cooked meat product should be of potable quality and may be re-circulated if treated and returned to potable quality.

f. At all stages following cooking manual handling of exposed meat products should be kept to an absolute minimum and, if at all possible, should be replaced by mechanical methods.

g. Packaging of meat products preserved by heat treatment should be carried out without undue delay in a separate room. However, where primary packaging follows slicing and cutting these operations should preferably take place in the same room under satisfactory conditions of hygiene.

Packaged finished meat products should be inspected to ensure the detection and rejection of visibly defective packages.

h. Meat products heat treated prior to packaging which require refrigeration should be stored in chilled accommodation and protected from contamination.

i. Adequate laboratory facilities should be available for the purpose of making regular bacteriological examinations of meat products. Regular bacteriological checks

should be made of all food contact surfaces to ensure that cleansing and disinfecting procedures are satisfactory.

j. Each container of the meat product should be permanently marked, in code or in clear, to identify the producing factory and the lot.

APPENDIX III

SAMPLING AND INSPECTION PROCEDURES FOR MICROBIOLOGICAL EXAMINATION OF PROCESSED MEAT PRODUCTS

(Advanced to Step 5 of the Procedure)

Preface

1. To control the safety and stability of large consignments of meat products in hermetically sealed containers by microbiological tests would require examination of more cans than laboratory facilities and personnel are likely to be able to handle, and would lead to considerable wastage of product. Detection of botulism through microbiological testing is unlikely.

2. Better knowledge of safety and stability can be gained from data on production, control and heat treatment provided by the processing establishment, and of the water supply. Reliance may also be placed on knowledge of the product of an establishment gained from experience of previous shipments from that source. If such data are adequate and satisfactory, testing may be dispensed with. The controlling authority might nevertheless decide to carry out periodic examinations of shipments presented at the port of entry in cases where factory data are satisfactory.

3. Can integrity in hermetically sealed containers is critical to the safety of the product. Where shipments are examined, a careful examination should therefore be made for can integrity. . As incubation is a relatively simple operation an incubation test may be warranted, even though it may not reveal all microbiological contamination.

4. Where shipments are examined care should be taken not to damage the containers, as this could place safety of the consignment at risk. Damage to the containers in a sample could lead to unjustified rejection of a consignment.

5. The procedure under A. is to be used for investigational purposes for shelf-stable products i.e. situations when the controlling authority has reason to suspect the lot to contain defectives. The testing relates to cured meat product. For uncured meat products, incubation at 55º C may also be indicated where thermophilic spoilage is of concern.

6. Several of the above comments also relate to perishable meat products heat-treated after packaging but the approach for examination is different. The procedure under B. is to be used for investigational purposes for non-shelf-stable products and describes a sampling plan and examination of these products.

7. For interpretation of the term "reject", see excerpt from General Principles for the establishment of microbiological criteria for foods, Report of the Second Joint FAO/WHO Expert Consultation, Geneva 1977, Chapter 5: Interpretation of Results.*

* It should be recognized that when a product fails to meet a criterion, the responsible person or authority has several options as to the action to take in response to the finding. Guidance with respect to certain options has been provided by ICMSF (1974) as follows:

> "A food unsuitable for one purpose may still be suitable for another; for example, if "rejected" for humans it might still be suitable for animals. Or a rejected food might even, if sorted to remove objectionable material, or if re-processed, be so improved as to pass the test and become acceptable for the original purpose. Normally, therefore, a rejected lot will simply be withheld while the responsible authority decides what to do with it: to return it to the producer, order re-processing, forbid its use for human consumption, or order its destruction, according to circumstances."

An official authority might in certain oases even decide to permit food having failed to meet a standard to enter normal commercial channels, if it is certain that thereby the consumer cannot be harmed. The risk that

unacceptable food reaches the consumer must be kept to a minimum, but food must not be unnecessarily destroyed or declared unfit for human consumption.

A. Shelf-stable meat products, heat-treated after packaging

(a) Select 200 containers from cartons distributed at random in the lot. The 200 containers are randomly selected from the shipping containers in accordance with the following schedule:

No. of containers per carton	No. of containers taken from each carton
5 or less	all
6 – 12	6
13 – 60	12
61 – 250	16
251 or more	24

If, for example, each carton contains 24 containers, 17 cartons shall be opened. 12 containers shall be taken at random from 16 of them, totalling 192 containers and 8 containers shall be taken at random from the 17th carton. Identification of individual containers at this point is unnecessary.

(b) Examine visually the 200 containers for "swells", pinholes, and seam defects. If necessary measure and control an appropriate number of the containers concerning the proper dimensions of the seams. If necessary cut up the seams of an appropriate number of the containers and control that the seams are properly constructed.

Before or after that examination it is recommended to carry out an incubation test.

If no defective containers are found the lot is accepted.
If 3 or more defective containers are found reject the lot.
If 1 or 2 defective containers are found proceed to step (c).
See also Sub-section A(i).

(c) When 1 or 2 defective containers among the 200 containers are found, sort the whole lot for removal of defective containers.
If this sorting reveals more than 1% of defective containers reject the lot.
The 1 or 2 containers initially found defective are included in the number of defective containers.
If the sorting reveals less than 1% defective cans caused by transit damage or poor can construction, proceed to step (d).
If there is doubt about the cause of the defective containers and underprocessing may be suspected, the abnormal containers should be sent to a laboratory for cultural examination before proceeding to step (d).
If outgrowth of spore-forming bacteria are found in the containers, the entire lot should be rejected.

(d) 200 of the sorted, sound containers are taken at random for incubation testing, and the remaining containers of the lot are withheld.

(e) Identify the 200 containers mentioned under (d) in a proper manner and send them to a laboratory for incubation testing.

(f) In the laboratory incubate the 200 containers at 30-370 C for at least 10 days.

(g) If any of the incubated containers show "swells", reject the lot. If no "swells" occur choose 20 containers at random and proceed to step (h).

(h) Examine the 20 containers for pinholes and seam defects. The seams should be checked by a tear down test.
If none show defects, accept the lot. Otherwise reject.

(i) If necessary to proceed beyond step (b), it will not alter the result, whether the sorting of the whole shipment, or the incubation and testing under (d) to (h) is done first. If therefore incubation appears to be the less costly or more convenient of the two procedures it may be done first.
The sample number of 200 should be restored by the addition of one or two sound containers, and if this sample passes incubation testing, the shipment should be sorted and judged under (c).
If the sample does not pass, the shipment should be rejected.

B. Non-shelf-stable meat products, heat-treated after packaging

(a) Sample 10 containers at random from at least 5 different cartons or shipping containers. Identification of individual containers at this point is unnecessary.

(b) Examine the 10 containers for "swells" and seam defects. At the same time measure the air temperature, preferably with an electronic measuring device in the space between containers.
If no defective containers are found, and if the temperature does not exceed 10 C, accept the lot.
If 1 or more defective containers are found, reject the lot.
If the temperature exceeds 100 C, proceed to step (c).

(c) Sample 5 containers from the warmer places in the lot and withhold the lot. Proceed to step (d).

(d) Identify the 5 containers mentioned under (c) in a proper manner and send them to a laboratory for microbiological examination. The transportation should take place under refrigeration, 10 C or less.

(e) In the laboratory draw sample units from the 5 containers with aseptic precautions, so as to obtain one sample unit from the center of each container and one sample unit from the jelly of each container.

(f) Examine these 2 x 5 sample units for aerobic plate count. Use ISO Standard (IS 2293) - Aerobic Count at 30 C (Reference Method).

(g) Reject if any of the 10 samples has an aerobic plate count exceeding 10,000 per gramme.
Also reject if 3 or more of the containers (either from the meat or the jelly) show an aerobic plate count higher than 1,000 per gramme. Otherwise accept.

(h) In case of rejection an investigation for specific organisms might be indicated.

APPENDIX IV

PROPOSED DRAFT CODE OF PRACTICE FOR THE PRODUCTION, STORAGE AND COMPOSITION OF MECHANICALLY SEPARATED MEAT AND POULTRY

(At Step 3 of the Procedure)

In the preparation of this Code recognition has been given to the need to avoid precluding the adoption of new technical developments provided these are consistent with the hygienic production of wholesome meat.

1. Only such meat separating equipment which has been approved by the controlling authority should be used. Section IV of the Recommended International Code of Hygienic Practice for Processed Meat Products (CAC/RCP 13-1976) would also apply.

2. Only bones, carcasses or parts of carcasses from slaughter animals or from poultry which have been approved for human consumption should be used.

3. With the exception of the skull all bones from these slaughter animals can be used for mechanical separation.

4. Bones, carcasses or parts of carcasses should be kept or transported at time/ temperature combinations that will assure their hygienic acceptability when used for mechanical separation. A selection of some suitable time/temperature combinations follow:

for mammals	(i)	maintained at ≤ +*[*10*]*ºC and processed within *[*5*]* hours of boning; or
	(ii)	chilled to ≤+*[7]*ºC within *[2]* hours of boning and held at this temperature for no longer than *[*36*]* hours; or
	(iii)	immediately placed in a freezer and reduced to <-*[*12*]*ºC within *[*48*]* hours of boning.
for poultry	(i)	maintained at ≤+*[*5*]*ºC and processed within *[*5*]* days of slaughter; or
	(ii)	immediately placed in a freezer and reduced to ≤-*[*12*]*ºC within *[*48*]* hours of slaughter.

5. The separating process should be carried out in such a way that bones and mechanically separated meat do not accumulate in the processing room in excess of good manufacturing practice. The temperature in the processing room should be controlled and held suitably low.

6. Unless mechanically separated meat is used directly after the separating process as an ingredient of a meat product, it should be cooled down to a maximum of +40 C in conjunction with the deboning process or immediately afterwards,

7. Dismantling, cleaning and disinfection of the separating equipment should be carried out in accordance with section 34(f) of the Recommended International Code of Hygienic Practice for Processed Meat Products (CAC/RCP 13-1976).

8. If not frozen immediately to a temperature not higher than -*[*18*]*ºC or otherwise kept in a hygienically acceptable state, the mechanically separated meat should be used for further processing within *[*24*]* hours. Storage should be at a temperature not higher than +4 C measured in the meat.

9. During storage and transport separated meat should be kept at a temperature of -*[*18*]*ºC, This temperature should be reached within *[*24*]* hours of the start of the freezing process.

10. Composition; The calcium content of mechanically separated meat may not exceed *[*2.5*]*% calculated on dry matter.

APPENDIX V

STANDARD	STEP	REFERENCE	PROVISION	METHOD	STATUS OP ENDORSEMENT
Canned Corned Beef	9	CAC/RS 88-1976	7.1 Protein	ISO R 937	Endorsed
			7.2 Nitrite	ISO/DIS 2918	To be endorsed
			7.3 Ascorbic acid	ISO work undertaken	
Luncheon Meat	9	CAC/RS 89-1976	7.1 Pat	ISO R 1443	Endorsed
			7.2 Nitrite	ISO/DIS 2918	To be endorsed
			7.3 Ascorbic and iso-ascorbic acids	ISO work undertaken	To be developed
			7.4 5'-guanylic acid)	ISO considering whether	
			7.5 5'-inosinic acid)	work should be undertaken	
			7.6 Glutamic acid	ISO/DIS 4134	To be endorsed
			7.7 (Added) phosphoric acid	ISO method being developed*	
			7.8 Glucono-delta-lactone	ISO/DIS 4133	To be endorsed
			7.9 Erythrosine (CI 45430)	ISO method being developed*	
Cooked Cured Ham	9	ALINORM 78/16 App. II	7.1 Protein	Nitrogen Content, ISO Recommendation R.937	Endorsed
			7.2 Rat	Total Rat Content, ISO Recommendation R.1443	Endorsed
			7.3 Nitrite and Nitrate	Recommended ISO methods: ISO/DIS 2918(Nitrite)	Endorsed-Secretariat to amend reference
				ISO/DIS 3091(Nitrate)	

			7.4 Correction for added gelatine	Detailed in the standard	
			7.5 Ascorbic and iso-ascorbic acids	ISO work undertaken	To be developed
			7.6 5'-guanylic acid)	ISO considering whether	
			7.7 5'-inosinic acid)	work should be undertaken	
			7.8 Glutamic acid	ISO/DIS 4134	To be endorsed
			7.9 (Added) phosphoric acid	ISO method being developed*	
Cooked Cured	9	ALINORM 78/16	As for Cooked Cured Ham	As for Cooked Cured Ham	
Pork Shoulder		App. III			
Cooked Cured	9	ALINORM 78/16	As for Luncheon Meat	As for Luncheon Meat	
Chopped Meat		App. IV	(till 7.9 inclusive)		

* The method determines total P_2O_5 from which natural P_2O_5 is deducted (natural P_2O_5 = 0.0243 x % protein).