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JOINT FAO/WHO FOOD STANDARDS PROGRAM
CODEX ALIMENTARIUS COMMISSION
Fifth Session, Rome, 19 February - 1 March 1968

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CODEX COMMITTEE ON FATS AND OILS

REPORT OF FOURTH SESSION 24TH APRIL - 28TH APRIL, 1967

1. The Codex Committee on Fats and Oils held its fourth session from 24th - 28th April, 1967 in London under the Chairmanship of Mr. J.H.V. Davies of the United Kingdom. The meeting was attended by 66 delegates and observers from 21 Governments and 10 International Organisations. A list of those participating is attached at Appendix I.

General Standard for Edible Fats and Oils (Step 4 of the Procedure)

2. The Committee had before it Codex/Fats and Oils/24, Codex/Fats and Oils/27, Codex/Fats and Oils/29, and Codex/Fats and Oils/37. After a very full discussion it was agreed that there should be one general standard to cover both fats and oils. This standard would apply both to those fats and oils not sufficiently important to warrant individual standards and to mixtures of fats and oils. It would not apply to products such as cooking fats and shortening unless they consisted of fats and oils only. During the discussion of the standard, set out at Appendix II, the following points of substance arose:-

(a) Colour, Odour and Taste

3. The Committee agreed to amend this criterion to read:-

"Characteristic of the designated product and as respects odour and taste either bland or free from foreign and rancid odour and taste".

(b) Acid Value and Peroxide Value

4. The delegation of the United States considered that values at the retail stage were not necessary, since control of the product was best exercised at the time of production, followed by careful attention to subsequent storage and distribution conditions. They were therefore opposed to values at the

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retail stage being laid down. The delegation of Canada supported this view. Most delegations thought that values at the retail stage were decisive and were all that was necessary adequately to protect the consumer's interests. The Committee agreed to include values for both the retail and refinery stages and to ask governments to comment on the need for values at the refinery stage.

The delegation of the Netherlands considered that the amended acid value at the retail stage (0.4 max) was too low. A figure as high as 4.0 was acceptable, and involved no health hazard, provided that the colour, odour and taste of the fat or oil was acceptable.

(c) Carbonyl and Benzidine Test

5. It was agreed that it was neither necessary nor feasible to include a carbonyl or a benzidine test for the determination of secondary oxidation products.

(d) Anti-oxidants

6. Some delegations considered that the gallates, BHA and BHT should not be permitted in fats and oils for direct consumption whether or not they were covered by the general standard. The Committee agreed that there was a technological case for permitting the use of anti-oxidants. Though some delegations thought lower levels should be prescribed for fats and oils for direct consumption than for manufacturing purposes, the Committee decided not to differentiate in this way.

7. The Committee agreed to add ascorbyl palmitate to the list of anti-oxidants, without a maximum limit. It was noted that the general level of usage was about 200 mg/kg. The Committee decided not to include monoisopropyl citrate or phosphoric acid.

(e) Colours and Flavours

8. It was agreed that the standard should permit the use of carotene and annatto in fats and oils other than those having specific names derived from the plant or animal from which they originated.

9. It was also agreed that the use of natural flavours and of identical synthetic flavours should be permitted in similar circumstances.

10. The delegation of Denmark drew attention to the question of ghee substitutes. It was agreed that the views of governments should be sought on these products and, in particular, on whether any colours and flavours were used in them.

(f) Emulsifiers

11. The Committee agreed to include provisions for emulsifiers, in fats and oils used in baking and in cooking fats. The delegation of the Federal Republic of Germany said they were opposed to the inclusion of the sorbitol and propyleneglycol fatty acid esters.

12. The Committee noted that the following emulsifiers have not been considered in detail by the Joint FAO/WHO Expert Committee on Food Additives:

(a) Mono - and diglycerides esterified with orthophosphoric acid or with acetylitric acid;

(b) Polyglycerol esters combined with interesterified ricinoleic acid.

13. The Committee decided that governments should be asked to supply information on these emulsifiers. Information on both specifications and toxicology should be provided for the Codex Committee on Foods Additives; according to the usual procedure.

14. The Committee agreed that levels should be added to the draft standard for emulsifiers. The maximum for mono- and di- glycerides of fatty acids was fixed at 5% and for other emulsifiers at 2%.

(g) Anti-Foaming Agents

15. The Committee agreed to include dimethyl polysiloxane in the standard, subject to a maximum of 10 mg/kg, for use in edible fats and oils used for frying. Some delegations, however, thought the technological need for anti-foaming agents in edible fats and oils had not been established. It was agreed that governments should be asked to comment on this question.

(h) Organo-chlorine pesticides

16. The Committee agreed that any information that delegations had about residue levels of organo-chlorine pesticides in fats and oils should be supplied to the Codex Committee on Pesticide Residues.

(i) Solvent Residues

17. The Committee noted that the subject was to be considered by the Codex Committee on Food Additives. They agreed that solvents used in extracting and processing fats and oils were normally removed during refining. They did not, therefore, consider that solvent residues presented a problem in fats and oils.

(j) Labelling

18. Some delegations considered that the provisions in paragraph 5.3 of the standard were ambiguous and might not, in any event, be necessary in the light of the general standard for labelling. It was decided that the provision be placed in square brackets and that the comments of governments should be requested on whether any labelling provision was required in respect of oils or fats that had been subjected to particular processes. The delegation of the Netherlands expressed the opinion that an oil or fat should no longer be allowed to bear its original name if it had been subjected to any process which changed its physical characteristics.

Draft Standards for Specific Oils (Step 4 of the Procedure)

19. The Committee discussed the draft standards for specific oils, set out at Appendices III to X of this Report. The following points emerged during the course of the discussion:-

(a) Winterisation The Committee decided not to make any special provision in the standards in respect of winterisation and not to prescribe a cold test value. It was thought that the question of winterising oils could best be dealt with by contract between buyer and seller.

(b) Oxystearin The delegation of Canada suggested that oxystearin should be permitted in arachis, cottonseed, and soya bean oils, up to a level of 0.125%. The Committee decided to ask governments to comment on the technological need for this additive and to indicate the levels at which it was used.

(c) Aflatoxin The Committee noted that aflatoxin was associated with the presence of protein debris in oils. Consequently, it was essentially a problem for virgin oils, in which there was only a limited trade for human consumption. The Committee agreed to invite the Codex Committee on Food Additives to ask the Joint FAO/WHO Expert Committee on Food Additives to evaluate the toxicological risk presented by aflatoxin in oils.

(d) Gossypol in Cottonseed Oil The Committee considered Codex/Fats and Oils/34 and came to the conclusion that gossypol did not present a problem in this oil, since it was normally sold refined and thus virtually free of this substance. None the less, they thought that the Codex Committee on Food Additives should be asked to invite the Joint FAO/WHO Expert Committee on Food Additives, in due course, to evaluate its toxicity.

(e) Halphen Test in Cottonseed Oil Although the Committee appreciated the limitations of this test, they agreed to leave it in the standard for the time being.

(f) Rapeseed Oil It was agreed that there would be nothing to prevent the names, 'Raps', and 'Rubsen' being used in the Federal Republic of Germany and that these need not be entered in the standard as synonyms. It was also agreed that Brassica nigra (black mustard) and Brassica juncea (brown mustard) should not be covered by the standard, but that governments should be asked to comment on the need for a specific standard for mustard oil; the species to be covered by such a standard; and the draft identity characteristics to be included. Draft derivation and identity characteristics are set out at Appendix XV.

(g) Botanical Names It was agreed that the Committee's Secretariat should consult appropriate botanical authorities on the botanical names used in the standards to ensure that they were correct.

Draft Standard for Lard (Step 4 of the Procedure)

20. The Committee revised the draft standard for Lard set out in Appendix XI. In discussing this draft standard the Committee agreed that the use of hydrogenated lard, lard stearine and refined lard could be permitted, subject to labelling provisions to require the presence of these substances to be declared on the label. The Committee also decided to ask the Codex Committee on Food Additives to consider the suitability of tocopherol esters for use in lard. The Committee agreed that frozen fatty tissues could be used to produce lard. The Committee also agreed that the results of a study by U.N.E.G.A. on animal fats should be made available to the Committee.

Draft Standard for Rendered Pork Fat (Step 4 of the Procedure)

21. The Committee revised the draft standard for Rendered Pork Fat set out at Appendix XII. Some delegations doubted the need for a separate standard, since the product was only of minor importance in international trade and would be covered by the draft General Standard for Fats and Oils if no separate standard was elaborated. The majority of delegations, however, thought that rendered pork fat was of sufficient importance to warrant a separate standard and that it was

desirable to maintain in this way the distinction between lard and rendered pork fat. The Committee also agreed that no provision for tracers should be included in the standard.

Draft Standard for Premier Jus (Step 4 of the Procedure)

22. In discussing the draft standard for Premier Jus, set out at Appendix XIII, the Committee amended the definition to emphasise that only killing fat collected at the time of slaughter could be used. The delegations of Denmark and Sweden were not in agreement with the proposed Titre Value; they considered that 44°C should be the lowest limit permitted if there was to be a clear distinction between premier jus and edible tallow. The Committee also agreed that frozen killing fat could be used to produce premier jus.

Draft Standard for Edible Tallow (Step 4 of the Procedure)

23. Some delegations thought that beef tallow and mutton tallow sold as such should be dealt with in separate standards. The Committee decided, however, that one standard should be sufficient provided that the labelling provisions made specific provisions for the use of the designations "Beef Tallow" and "Mutton Tallow". The United Kingdom delegation drew attention to the possibility that the species names included in the standard might be unduly restrictive, in that they might rule out the use of animals not of the stated species. The Committee agreed that governments should be asked to comment on this question. It was also agreed that refined tallow could be used, subject to suitable labelling provisions. The revised standard is set out at Appendix XIV.

Submission to the Codex Alimentarius Commission

24. The Committee agreed that the standards at Appendices II to XIV should be transmitted to the Secretariat of the Codex Alimentarius Commission with a view to adoption as draft provisional standards at the next Session of the Commission (Step 5 of the Procedure for the Elaboration of World-Wide Standards).

Revised Identity Standards for Fats and Oils

25. The Committee considered the proposals by Canada for revised identity standards for fats and oils set out in Codex/Fats and Oils/25 and, as a specific example, Canada's proposal for a draft provisional standard for soybean oil, circulated as Codex/Fats and Oils/39, in which identity characteristics in terms of fatty acid composition were suggested as an optional alternative to identity characteristics based on the classical methods of analysis.

26. The Committee noted the comments on the Canadian proposals, contained in Codex/Fats and Oils/28. The Committee were informed of the progress towards developing standard techniques for the determination of fatty acid composition by gas-liquid chromatography. Tentative methods had now been published by IUPAC, AOCS and AOAC. The Committee thought that the Canadian proposals were a most valuable contribution to their work. Apart from olive oil, however the Committee considered that the information available to them about the range in values of fatty acid composition for edible oils and fats was, at present, insufficient to enable them to recommend that this technique be used, either as an optional or a mandatory requirement, in drawing up standards.

27. The Committee decided that to stimulate further work, the optional criteria suggested by Canada, as set out in Appendix XVI, should be circulated to governments and that they should be asked:-

- (a) for their views on the values set out in Appendix XVI;
- (b) whether the method of presentation should be in terms of the content of certain individual fatty acids supplemented by fatty acid ratios (as suggested by Canada) or in terms of content of all the individual fatty acids;
- (c) which of the tentative methods for gas-liquid chromatography was preferred; and
- (d) for additional experimental data of fatty acid composition based on the preferred method.

28. In circulating the Appendix the Committee thought that the attention of governments should be invited to the points included in Codex/Fats and Oils/28.

Olive Oil (Step 2 of the Procedure)

29. The Committee had before it the draft standard for olive oil (Codex/Fats and Oils/33) which they had invited the International Olive Oil Council to prepare. During the discussion of the standard, the following points of substance arose:-

(a) Definition of Refined Olive Oil

Some delegations thought that the words "alteration in the initial glyceridic structure" did not correctly express the sense of what was intended. The Committee decided to leave them in the standard for the time being, modified by the words "detectable by methods of analysis specified below" and to invite governments to comment specifically on this provision.

(b) Quality Criteria in Virgin Olive Oil

The Committee noted that Annex A of the International Olive Oil Agreement made provision for the quality criteria "Extra", "Fine" and "Ordinary". The representative of the IOOC thought that these quality criteria might well be left to contractual arrangements between buyer and seller. The Committee decided to seek the views of governments on whether or not the standard should make provision for these criteria, possibly as a labelling provision. An extract from Annexe A of the Olive Oil Agreement is at Appendix XVIII to the Report.

(c) Acid Value and Peroxide Value

The delegation of the Netherlands thought that the peroxide values for refined and refined residue oils were too high. It was pointed out by the representative of IOOC that these oils would only be sold to consumers blended with virgin oil and that, consequently, there did not seem to be any reason to prescribe peroxide values for them lower than that for virgin oil. The Committee decided not to amend the values, but to draw the attention of governments specifically to the need to comment on this point. It was noted that the designation "olive oil" was used to describe either virgin olive oil, refined olive oil or blends of these oils though this was not made entirely clear in the standard. It was agreed that the labelling provisions of the standard should deal with this point. The delegation of Canada said that quality control was best effected at the refinery and that, in his view, these values should be expressed in terms of the oil on leaving the refinery, not at the retail level.

(d) Additives

The Committee understood that additives were not being used in olive oils, whether virgin or refined. It was agreed that governments should be asked to comment on this question and, if additives were being used, to say which and in what amounts.

(e) Contaminants

The Committee also agreed to ask governments for any information on contaminants occurring in olive oil.

(f) Pesticide Residues

The Committee agreed that any information delegations had about the levels of pesticide residues in olive oil should be supplied to the Codex Committee on Pesticide Residues.

(g) Methods of Analysis

The Committee agreed that the methods of analysis should be sent to the Codex Committee on Methods of Analysis and Sampling for endorsement. The delegation of the United States agreed to send the Committee's Secretariat details of any proven equivalents to the methods agreed by the Committee, particularly those of the Association of Official Analytical Chemists and the American Oil Chemists' Society. The revised standard is at Appendix XVII.

30. The Committee decided that the proposed draft provisional standard for olive oils should be circulated to governments and to international organisations for comment at Step 3 of the Procedure for the Elaboration of World-Wide Standards.

Draft Standards for Margarine (Step 7 of the Procedure)

31. The Committee had before it Codex/Fats and Oils/32, Codex/Fats and Oils/35, Codex/Fats and Oils/36 and Codex/Fats and Oils/38. They revised the standard, which is set out at Appendix XIX. During the course of discussion, the following points of substance arose:-

(a) Application of the Standard

The delegation of the Federal Republic of Germany reserved their position on the wording of para. 1.2 "Application" in the light of the "definition" (1.1). They pointed out that it would permit the marketing of sub-standard margarine if the fat content was slightly below 80% and the name "margarine" not used. However, if such a possibility was accepted, the marketing of margarine with a fat content above 80%, but deviating from other provisions of the standard, should also be allowed if the name "margarine" was not used.

(b) Use of Milk and Milk Products

The Committee agreed to amend the definition as follows:-

the phrase "which are not or are only partly derived from milk" should be replaced by "which are not or are not mainly derived from milk".

and to remove the limitation on the proportion of milk products permitted in margarine. The delegations of Australia New Zealand were opposed to the use of milk products in margarine. Some delegations considered that a limitation on the amount of milk and milk products permitted was desirable.

(c) Moisture Content

The Committee decided not to make any provision in the standard for maximum moisture content. The delegations of Australia, Denmark, New Zealand, Spain and the United Kingdom considered that a maximum moisture content of 16% should be included.

(d) Edible Protein

The Committee considered that the expression "edible protein" was not sufficiently precise and decided to amend it to read "suitable edible protein". The question of hygiene requirements would ultimately be dealt with by a reference to the general requirements laid down by the Codex Committee on Food Hygiene.

(e) Additives

(i) General The Committee noted that many of the additives in the standard had been evaluated by the Expert Committee on Food Additives and that acceptable daily intake levels had been proposed. Where the toxicology of an additive in the standard had not been so evaluated, The Committee agreed that the Food Additives Committee should be asked to consider it as soon as possible. The delegation of the Federal Republic of Germany suggested that there should be a distinction between the list of additives for margarine for table use and for industrial use.

(ii) Colours. The Committee agreed that this provision should be amended to read:- "Carotenes, other carotenoids, annatto and curcumin".

(iii) Emulsifiers The Committee decided to widen the tentative list by including a number of emulsifiers for which acceptable daily intake levels had been proposed by the Joint FAO/WHO Expert Committee on Food Additives. Sucrose esters were also tentatively included with a request that these be given urgent consideration by the Codex Committee on Food Additives. The Committee decided not to include the following emulsifiers but to refer them to the Codex Committee on Food Additives.

- (a) Partial and complete esters of glycerol and edible fatty acids of which not more than 10% are thermally oxidised and hydroxylated fatty acids of refined soya bean oil (content of urea-non-adduct-forming fatty acids not to exceed 5% calculated as methyl esters) (Maximum 0.3%).
- (b) Partial and complete esters of mono- and di-glycerides and acetylcitric or phosphoric acids (Maximum 1%).
- (c) Partial fatty acid esters of polyglycerol and acetic, lactic, citric, acetylcitric, tartaric, acetyltartaric and the partial esters of polyglycerol and interesterified castor oil (Maximum 0.4%).
- (d) Polyglycerol esters (partial) of dimerized fatty acids of soya bean oil (maximum 0.4%).

Some delegations considered that the tentative list was too long and that many of the emulsifiers were either not used or were used only in margarine sold for manufacturing purposes, e.g. to bakers.

(iv) Preservatives The delegations of Australia and New Zealand were opposed to the use of any preservatives in margarine. Those of Denmark and France thought benzoic acid was not needed. The Committee decided to make no change in the provisions.

(v) Antioxidants. The Committee decided that resin guaiac should be deleted as not being technologically necessary. They also decided that the maximum limit for the gallates and for BHA and BHT should be 100 mg/kg, since this was all that was technologically necessary. It was decided that the Codex Committee on Food Additives should be asked to examine the toxicology of the following antioxidants, suggested by the Japanese delegations:-

(a) Isoamyl gallate;

(b) Ethyl protocatechuate (up to 500 mg/kg).

(vi) Synergists It was decided that no separate provision need be made for synergists and that only citric acid should be permitted. Some delegations pointed out that synergists were allowed in individual animal fats which might be used in the manufacture of the product, and that there could be some carryover into the margarine itself. It was thought that consideration should be given to this matter as a general issue affecting all food. The delegations of Canada, Denmark and the United States considered that all the synergists except citric acid should not be deleted, without further consultation with the margarine industry.

(vii) Other Additives The Committee decided to specify all the pH correcting agents and to add sodium bicarbonate, sodium carbonate and sodium hydroxide to the list of substances under 'other additives'.

(f) Labelling The Committee noted that the Commission had decided to place paragraph 6.3. in square brackets and to remove the reference to advertising, since it was outside the scope of the Codex as laid down in the General Principles. The delegations of Australia and New Zealand expressed their preference for the paragraph in its original form. The Committee considered the views on this paragraph expressed in the Commission's report. The majority of delegations took the view that it should be deleted and that any provision to deal with a food being sold in a way which confused it with another should be a matter for the general labelling standard. It was therefore agreed to delete the provision and to ask the Codex Committee on Food Labelling to consider whether any additional provision was required in the General Standard on Food Labelling to prevent any food being sold in a manner which falsely implied either directly or indirectly that the food was or was connected with another food. The delegations of Australia, Denmark, New Zealand, Spain and the United Kingdom took the view that the paragraph should be retained in the margarine standard.

(g) Reference to the Presence of Milk Fat in Margarine The Committee discussed paragraph 6.4 and the various possible ways of dealing with the declaration

of the presence of milk fat in margarine. It was agreed that some provision was required and the following proposals were considered: -

- (i) that a statement of the proportion of milk fat present should be permitted where any milk fat was present;
- (ii) that a statement should only be permitted where a substantial proportion of milk fat was present;
- (iii) that a statement should only be permitted where more than 10% of milk fat was present.
- (iv) that no statement should be permitted, and
- (v) that a statement should only be permitted as part of a statement of the amounts of all the fats present.

The majority of the Committee thought that a statement should be permitted but that it should only be permitted where a substantial proportion of milk fat was present. Many delegations considered that 10% was the lowest figure to which the expression 'substantial' could apply. It was agreed that the paragraph should refer to a substantial amount of fat and that the words '10% or more' should be added in square brackets. The sub-paragraph would then read:-

"a statement of the proportion of milk fat present when this proportion is substantial $\left[\frac{10\%}{\text{or more of the total fat content}} \right]$ "

- (h) Sampling It was agreed that paragraph 7.2 should be deleted.
- (i) Pesticide Residues The Committee agreed that any information delegations had about the levels of pesticide residues in margarine should be supplied to the Codex Committee on Pesticide Residues.
- (j) Tracers Although some delegations favoured a provision for tracers, the Committee agreed that no such provision should be made in the standard.

Submission of the Standard to the Codex Alimentarius Commission

32. The Committee agreed that the margarine standard (Appendix XIX) should be transmitted to the Secretariat of the Codex Alimentarius Commission with a view to its adoption as a provisional standard at the next Session of the Commission. (Step 8 of the Procedure for the Elaboration of World Wide Standards).

Methods of Analysis of Fats and Oils

33. The Committee agreed that the methods of analysis set out in Codex/Fats and Oils/30 should be submitted to the Codex Committee on Methods of Analysis and Sampling for endorsement, after the incorporation of certain alternative methods suggested by the delegations of the Netherlands and the United States of America and by the representative of the International Organisation for Standardisation.

Hygiene Aspects of Fats, Oils and Margarine

34. The Committee considered the Secretariat note on the Hygiene Aspects of Fats, Oils and Margarine (Codex/Fats and Oils/31). The delegations of Canada and Spain considered that recommendations were required for the hygienic production and distribution of fats, oils and margarine and for microbial standards. The Committee agreed that Codex/Fats and Oils/31 should be amended to take account of some of the comments made by these delegations and should then be sent to the Codex Committee on Food Hygiene for consideration. The Committee noted that the question of hygiene requirements for raw materials used in the production of animal fats was being dealt with by the Codex Committee on Meat and Meat Products.

Date of Next Meeting

35. The Committee noted that the next Session of the Commission would not take place until early 1968. The Committee considered that it would not be practicable to meet earlier than five months after the Commission's meeting. It was agreed to draw this point to the attention of the Commission.

Summary of Work to be Undertaken

36. Comments to be supplied by Governments.

(a) General Standard for Edible Oils and Fats

(i) On the need for acid values and peroxide values at the refinery stage (paragraph 4).

(ii) On ghee substitutes and, in particular, on whether any colours and flavours are used in them (paragraph 10).

(iii) On the specifications and the toxicology of the following emulsifiers:-

(a) Mono- and diglycerides esterified with orthophosphoric and acetylcitric acids; and

(b) Polyglycerol esters combined with interesterified ricinoleic acid. These comments to be sent to the Codex Committee on Food Additives. (paragraph 13).

(iv) On the technological need for anti-foaming agents in edible fats and oils used in frying (paragraph 15).

(v) On residue levels of organo-chlorine pesticides in fats and oils. These comments to be sent to the Codex Committee on Pesticide Residues (paragraph 16).

(vi) On whether special labelling provisions are necessary in respect of oils and fats that have been subjected to any process which alters their physical characteristics (paragraph 18).

(b) Standards for Specific Oils and Fats

(i) On the technological need to use oxystearin in arachis, cottonseed and soya bean oils; and on the levels at which it is used in these oils (paragraph 19(b)).

(ii) On the need for a separate standard for mustard oil; on the species to be covered by such a standard; and on the draft identity characteristics at Appendix XV (paragraph 19(f)).

(iii) On the species of animal used in the production of edible tallow (paragraph 23).

(iv) On the use of fatty acid composition, as determined by gas-liquid chromatography, as identity characteristics on the values at Appendix XVI; on the method to be used; and on the experimental data available, based on this method. (paragraph 27).

(c) Olive Oil

(i) On the definition of Refined Olive Oil (paragraph 29(a)).

(ii) On whether the standard should provide for the quality criteria "Extra", "Fine" and "Ordinary", possibly as labelling provisions (paragraph 29(b)).

(iii) On whether the peroxide values for refined and refined residue olive oils should be the same as, or lower, than that for virgin olive oils (paragraph 29(c)).

(iv) On whether additives are being used and, if so, which and in what amounts (paragraph 29(d)).

(v) On the contaminants, if any, to be found in olive oils (paragraph 29(e)).

(vi) On pesticide residues in olive oils. This information to be supplied to the Codex Committee on Pesticide Residues (paragraph 29(f)).

(d) Margarine

On pesticide residues. This information to be supplied to the Codex Committee on Pesticide Residues (paragraph 31(i)).

Questions Referred to the Codex Committee on Food Additives.

37. (a) To consider, as well as those additives listed in the draft standards:-

(i) aflatoxin in oils (paragraph 19(c));

(ii) gossypol in cottonseed oil (paragraph 19(d));

(iii) the emulsifiers listed in paragraph 31(e) (3) of the Report ; and

(iv) isoamyl gallate and ethyl protocatechuate (paragraph 31(e) (5)).

(b) To consider the suitability of tocopherol esters for use in Lard (paragraph 20).

Questions referred to the Codex Committee on Food Hygiene

38. To consider the Paper approved by the Committee on the hygiene aspects of fats, oils and margarine (paragraph 31(d) and 34).

Work to be done by the Secretariat

39. To consult the appropriate authorities on the botanical names used in the standards (paragraph 19(g)).

Standards to be circulated at Step 3 of the Procedure

40. Olive Oils (Appendix XVII).

Standards to be sent to the Codex Alimentarius Commission

41. (a) At Step 5 of the Procedure

(i) General Standard for Edible Oils and Fats (Appendix II)

(ii) Standards for the following individual oils and fats:-

Soya Bean Oil	(Appendix III)	Sesameseed Oil	(Appendix IX)
Arachis Oil	(Appendix IV)	Safflowerseed Oil	(Appendix X)
Cottonseed Oil	(Appendix V)	Lard	(Appendix XI)
Sunflower Oil	(Appendix VI)	Rendered Pork Fat	(Appendix XII)
Rapeseed Oil	(Appendix VII)	Premier Jus	(Appendix XIII)
Maize Oil	(Appendix VIII)	Edible Tallow	(Appendix XIV)

(b) At Step 8 of the Procedure

Margarine (Appendix XIX)

42. The relevant parts of these standard are to be referred for endorsement to the Codex Committees on Labelling, Food Additives and Methods of Analysis and Sampling respectively.

JOINT FAO/WHO CODEX ALIMENTARIUS COMMISSION

CODEX COMMITTEE ON FATS AND OILS

LIST OF PARTICIPATING DELEGATES, ADVISERS AND OBSERVERS

LONDON 24th - 28th APRIL, 1967

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PROPOSED DRAFT PROVISIONAL GENERAL STANDARD FOR EDIBLE OILS AND FATSNOT COVERED BY INDIVIDUAL CODEX STANDARDS(Step 5 of the Procedure)1. DEFINITIONS AND APPLICATION OF STANDARD

- 1.1 Edible fats and oils are foodstuffs composed of glycerides of fatty acids of vegetable, animal or marine origin. They may contain small amounts of other lipids such as phosphatides, of unsaponifiable constituents and of free fatty acids naturally present in fats and oils. Fats of animal origin must be produced from animals in good health at time of slaughter and fit for human consumption as determined by a competent authority recognised in national legislation.
- 1.2 Virgin fats and oils are edible fats and oils obtained by mechanical and physical procedures only and purified by washing, settling, filtering and centrifuging only.
- 1.3 Application of the Standard This standard applies to oils, fats and mixtures thereof but does not apply to any oil or fat which is the subject of a specific codex commodity standard.

2. QUALITY CHARACTERISTICS

- 2.1 Colour, Odour and Taste Characteristic of the designated product and, as respects odour and taste, either bland or free from foreign and rancid odour and taste.

2.2 Acid Value (mg KOH g. fat or oil)

Virgin fats and oils	4.0 max.
Non-Virgin fats and oils	
At time of leaving refinery	0.2 max.
Retail Sale	0.4 max.

2.3 Peroxide Value (meq. per kg fat or oil)

At time of leaving refinery	1.0 max.
Retail Sale	10.0 max.

3. ADDITIVES

- 3.1 The substances approved by the Codex Committee on Food Additives specifically as suitable for use in fats and oils for human consumption. The following are recommended for consideration by the Codex Committee on Food Additives.

3.2 Antioxidants

- (a) Propyl -, octyl -, and dodecyl gallates, individually or in combination, up to 100 mg/kg.
- (b) BHA or BHT, individually or in combination, up to 200 mg/kg.
- (c) Any combination of gallates with BHA or BHT, or both, up to 200 mg/kg, but the amount of gallates not to exceed 100 mg/kg.
- (d) Natural and synthetic tocopherols.
- (e) Ascorbyl palmitate, up to 200 mg/kg.

3.3 Synergists

Citric Acid.

3.4 Colours

Carotene and annatto, but only in fats and oils not specifically designated with the name of the plant or animal from which they originate.

3.5 Flavours

Natural and synthetic flavours, but only in fats and oils not specifically designated with the name of the plant or animal from which they originate.

3.6 Emulsifiers (only in fats used for baking and cooking fats)

(a) Mono- and diglycerides of fatty acids - up to 5% by weight.

(b) Mono- and diglycerides of fatty acid esterified with the following acids:

acetic,
tartaric,
citric,
acetyltartaric,
acetylcitric,
lactic,
orthophosphoric,
and their sodium and calcium salts

* (c) Lecithin (as mixtures of phosphatides and their fractions)

(d) Polyglycerol esters of fatty acids

(e) Polyglycerol esters of interesterified ricinoleic acid

(f) Esters of fatty acids with polyalcohols other than glycerol:

Sorbitol monopalmitate.
Sorbitol monostearate.
Sorbitol tristearate.

(commercially known under the names of "Span 40", "Span 60" and "Span 65").

(g) Ester of 1, 2-propyleneglycol with one fatty acid radical only

(h) Esters of mono- and disaccharides with fatty acids ("Sucro-glycerides")

* (i) Stearyl lactic acid and calcium stearyl lactylate

* Items (b) to (i) individually or in combination not to exceed 2% by weight.

3.7 Antifoaming Agents (only in fats and oils used for frying)

Dimethyl polysiloxane, up to 10 mg/kg.

4. CONTAMINANTS

The following maximum limits by weight shall apply:-

Matter volatile at 105°C	:	0.2%
Insoluble impurities	:	0.05%
Soap content	:	0.005%
Iron	:	1.5 mg/kg.
∅ Copper	:) Virgin 0.4 mg/kg.
) Refined 0.1 mg/kg.
∅ Lead	:	0.1 mg/kg
∅ Arsenic	:	0.1 mg/kg

(∅ the limits for Copper, Lead, and Arsenic should fall within any overall limits for heavy metals specified for all foods by the Codex Committee on Food Additives. The limits proposed are put forward as technologically unavoidable).

5. LABELLING

5.1 General The provisions of this paragraph are subject to endorsement by the Codex Committee on Food Labelling and to any general provisions laid down by that Committee and subsequently approved by the Commission.

5.2 The name designated for the product conforming to the definition at 1.1 of this standard shall be such as to give a true indication of the nature of the fat or oil and not to mislead the consumer. Names such as "edible oil" and "salad oil" which do not indicate a plant or animal source may be used without further qualification.

5.3 Where an oil has been subject to processing which alters its physical characteristics the name of the oil shall not be used unless qualified to indicate the nature of the process.

5.4 The designation 'virgin fat' or 'virgin oil' may only be used for fats or oils conforming to the definition at 1.2 of this standard.

6. METHODS OF ANALYSIS AND SAMPLING

PROPOSED DRAFT PROVISIONAL STANDARD FORSOYA BEAN OIL(Step 5 on the Procedure)1. DEFINITION1.1. Derivation

Soya Bean Oil is derived from soya beans (the seeds of Glycine max L. or Glycine hispida).

1.2. Synonyms

Soybean Oil.

1.3. Identity CharacteristicsRanges

Relative Density (20°C/water at 20°C)	: 0.919-0.925
Refractive Index (n _D ^{40°C})	: 1.466-1.470
Saponification Value (mg.KOH per g.oil)	: 189-195
Unsaponifiable Matter (%)	: 1.5 (maximum)
Iodine Value (Wijs)	: 120-143

2. QUALITY CHARACTERISTICS2.1. Colour, Odour and Taste

Characteristic of the designated product and, as respects odour and taste, either bland or free from foreign and rancid odour and taste

2.2. Acid Value (mg. KOH per g)

At time of leaving Refinery	0.2 max.
Retail sale	0.4 max.

2.3. Peroxide Value (meq. per kg)

At time of leaving Refinery	1.0 max.
Retail sale	10.0 max.

3. ADDITIVES

3.1. The substances approved by the Codex Committee on Food Additives specifically as suitable for use in fats and oils for human consumption. [The following are recommended for consideration by the Codex Committee on Food Additives]:-

3.2. Antioxidants

(a) Propyl - octyl - and dodecyl gallates, individually or in combination, up to 100 mg/kg;

- 3.2. (b) BHA, BHT, individually or in combination up to 200 mg/kg;
- (c) Any combination of gallates with BHA or BHT, or both, up to 200 mg/kg, but the amount of gallates not to exceed 100 mg/kg;
- (d) Natural and synthetic tocopherols;
- (e) Ascorbyl palmitate, up to 200 mg/kg.

3.3. Synergists

Citric acid

4. CONTAMINANTS

The following maximum limits by weight shall apply:-

Matter volatile at 105°C	: 0.2%
Insoluble impurities	: 0.05%
Soap content	: 0.005%
Iron	: 1.5 mg/kg
∅ Copper	: } Virgin 0.4 mg/kg } Refined 0.1 mg/kg
∅ Lead	: 0.1 mg/kg
∅ Arsenic	: 0.1 mg/kg

(∅ The limits for Copper, Lead and Arsenic should fall within any overall limits for heavy metals specified for all foods by the Codex Committee on Food Additives. The limits proposed are put forward as technologically unavoidable.)

5. LABELLING

- 5.1. General. The provisions of this paragraph are subject to endorsement by the Codex Committee on Food Labelling and to any general provisions laid down by that Committee and subsequently approved by the Commission.
- 5.2. All products designated as 'Soya Bean Oil' or 'Soybean Oil' must conform to this standard.
- 5.3. Where soya bean oil has been subject to processing which alters its physical characteristics the name 'Soya Bean Oil' or any synonym shall not be used unless qualified to indicate the nature of the process.

6. METHODS OF ANALYSIS AND SAMPLING

PROPOSED DRAFT PROVISIONAL STANDARD FOR ARACHIS OIL

(Step 5 of the Procedure)

1. DEFINITION

1.1. Derivation

Arachis Oil is derived from groundnuts (the seeds of Arachis hypogaea).

1.2. Synonyms

Peanut Oil.

Groundnut Oil.

1.3. Identity Characteristics

Ranges

Relative Density (20°C/water at 20°C)	:	0.914 - 0.917
Refractive Index (n_D^{40} C)	:	1.460 - 1.465
Saponification Value (mg.KOH per g.oil)	:	187 - 196
Unsaponifiable Matter (%)	:	1.0 (maximum)
Iodine Value (Wijs)	:	80 - 105

1.4. Specific Test

The minimum arachidic and higher fatty acids content as determined by either of the methods specified in paragraph 6.1. of this standard shall be 4.8 per cent.

2. QUALITY CHARACTERISTICS

2.1. Colour, Odour and Taste

Characteristic of the designated product and, as respects odour and taste, either bland or free from foreign and rancid odour and taste.

2.2. Acid Value (mg.KOH per g)

Virgin oil	4.0 max.
Non-virgin oil	
At time of leaving Refinery	0.2 max.
Retail sale	0.4 max.

2.3. Peroxide Value (meq. per kg)

At time of leaving Refinery 1.0 max.

Retail Sale 10.0 max.

3. ADDITIVES

3.1. The substances approved by the Codex Committee on Food Additives specifically as suitable for use in fats and oils for human consumption. [The following are recommended for consideration by the Codex Committee on Food Additives/-

3.2. Antioxidants

- (a) Propyl - octyl - and dodecyl gallates, individually or in combination, up to 100 mg/kg;
- (b) BHA, BHT, individually or in combination up to 200 mg/kg;
- (c) Any combination of gallates with BHA or BHT, or both up to 200 mg/kg, but the amount of gallates not to exceed 100 mg/kg;
- (d) Natural and synthetic tocopherols;
- (e) Ascorbyl palmitate, up to 200 mg/kg.

3.3. Synergists

Citric acid

4. CONTAMINANTS

The following maximum limits by weight shall apply:-

Matter volatile at 105°C	:	0.2 %
Insoluble impurities	:	0.05%
Soap content	:	0.005%
Iron	:	1.5 mg/kg
∅ Copper) Virgin	: 0.4 mg/kg
) Refined	: 0.1 mg/kg
∅ Lead	:	0.1 mg/kg
∅ Arsenic	:	0.1 mg/kg

(∅ The limits for Copper, Lead and Arsenic should fall within any overall limits for heavy metals specified for all foods by the Codex Committee on Food Additives. The limits proposed are put forward as technologically unavoidable).

5. LABELLING

5.1. General The provisions of this paragraph are subject to endorsement by the Codex Committee on Food Labelling and to any general provisions laid down by that Committee and subsequently approved by the Commission.

5.2. All products designated as 'Arachis Oil', 'Peanut Oil' or 'Groundnut Oil' must conform to this standard.

[5.3. Where an arachis oil has been subject to processing which alters its physical characteristics the name 'Arachis Oil', or any synonym shall not be used unless qualified to indicate the nature of the process.]

6. METHODS OF ANALYSIS AND SAMPLING

(Subject to endorsement by the Codex Committee on Methods of Analysis and Sampling).

[6.1. Arachidic and Higher Fatty Acids Content

(a) Modified Renard Test - Section 26.077, A.O.A.C., Tenth Edition (1965)

or

(b) Arachis Oil Test (Evers) Page 97, British Standard 684: 1958.]

PROPOSED DRAFT PROVISIONAL STANDARD FORCOTTONSEED OIL(Step 5 of the Procedure)1. DEFINITION1.1. Derivation

Cottonseed Oil is derived from the seeds of various cultivated species of Gossypium

1.2. Identity CharacteristicsRanges

Relative Density (20°C/water at 20°C)	:	0.918-0.926
Refractive Index ($n_D^{40^\circ C}$)	:	1.458-1.466
Saponification Value (mg.KOH per g.oil)	:	189-198
Unsaponifiable Matter (%)	:	1.5 (maximum)
Iodine Value (Wijs)	:	99-119

1.3. Special Test

Halphen Test

Note:- Kapok oil and some other oils give a positive test; and fats from animals fed on cottonseed meal may also give a positive test. Different lots of cottonseed oil may react with different intensities. Hydrogenation and heating of cottonseed oil reduce the intensity of the reaction and may destroy it entirely.

2. QUALITY CHARACTERISTICS2.1. Colour, Odour and Taste

Characteristic of the designated product and, as respects odour and taste, either bland or free from foreign and rancid odour and taste.

2.2. Acid Value (mg. KOH per g.)

At time of leaving Refinery	0.2 max.
Retail sale	0.4 max.

2.3. Peroxide Value (meq. per kg)

At time of leaving Refinery	1.0 max.
Retail sale	10.0 max.

3. ADDITIVES

3.1. The substances approved by the Codex Committee on Food Additives specifically as suitable for use in fats and oils for human consumption. The following are recommended for consideration by the Codex Committee on Food Additives:-

3.2. Antioxidants

- (a) Propyl - octyl - and dodecyl gallates, individually or in combination, up to 100 mg/kg;
- (b) BHA, BHT, individually or in combination up to 200 mg/kg;
- (c) Any combination of gallates with BHA or BHT, or both, up to 200 mg/kg, but the amount of gallates not to exceed 100 mg/kg;
- (d) Natural and synthetic tocopherols;
- (e) Ascorbyl palmitate, up to 200 mg/kg.

3.3. Synergists

Citric acid

4. CONTAMINANTS

The following maximum limits by weight shall apply:-

Matter volatile at 105°C	: 0.2%
Insoluble impurities	: 0.05%
Soap content	: 0.005%
Iron	: 1.5 mg/kg
Ø Copper	(Virgin : 0.4 mg/kg (Refined : 0.1 mg/kg
Ø Lead	: 0.1 mg/kg
Ø Arsenic	: 0.1 mg/kg

(Ø The limits for Copper, Lead and Arsenic should fall within any overall limits for heavy metals specified for all foods by the Codex Committee on Food Additives. The limits proposed are put forward as technologically unavoidable).

5. LABELLING

5.1. General The provisions of this paragraph are subject to endorsement by the Codex Committee on Food Labelling and to any general provisions laid down by that Committee and subsequently approved by the Commission.

5.2. All products designated as 'Cottonseed Oil' must conform to this standard.

- 5.3 Where a Cottonseed oil has been subject to processing which alters its physical characteristics the name 'Cottonseed Oil' shall not be used unless qualified to indicate the nature of the process.

6. METHODS OF ANALYSIS AND SAMPLING

(Subject to endorsement by the Codex Committee on Methods of Analysis and Sampling.)

[Halphen Test - AOCs official Method Cb.1-25]

PROPOSED DRAFT PROVISIONAL STANDARD FOR
SUNFLOWER OIL
 (Step 5 of the Procedure)

1. DEFINITION1.1. Derivation

Sunflowerseed Oil is derived from Sunflower seeds (the seeds of Helianthus annuus).

1.2. Synonyms

Sunflower Oil.

1.3. Identity Characteristics

	<u>Ranges</u>
Relative Density (20°C/water at 20°C)	∴ 0.918-0.923
Refractive Index ($n_D^{40^\circ C}$)	: 1.467-1.469
Saponification Value (mg.KOH per g.oil)	: 188-194
Unsaponifiable Matter (%)	: 1.5 maximum
Iodine Value (Wijs)	: 110-143

2. QUALITY CHARACTERISTICS2.1. Colour, Odour and Taste

Characteristic of the designated product and, as respects odour and taste, either bland or free from foreign and rancid odour and taste.

2.2. Acid Value (mg. KOH per g)

At the time of leaving Refinery	0.2 max.
Retail sale	0.4 max.

2.3. Peroxide Value (meq. per kg)

At the time of leaving Refinery	1.0 max.
Retail sale	10.0 max.

3. ADDITIVES

3.1. The substances approved by the Codex Committee on Food Additives specifically as suitable for use in fats and oils for human consumption [The following are recommended for consideration by the Codex Committee on Food Additives]:

3.2. Antioxidants

(a) Propyl - octyl - and dodecyl gallates, individually or in combination, up to 100 mg/kg;

- (b) BHA, BHT, individually or in combination up to 200 mg/kg;
- (c) Any combination of gallates with BHA or BHT, or both, up to 200 mg/kg but the amount of gallates not to exceed 100 mg/kg;
- (d) Natural and synthetic tocopherols;
- (e) Ascorbyl palmitate, up to 200 mg/kg.

3.3. Synergists

Citric acid

4. CONTAMINANTS

The following maximum limits by weight shall apply:-

Matter volatile at 105°C	: 0.2%
Insoluble impurities	: 0.05%
Soap content	: 0.005%
Iron	: 1.5 mg/kg
Ø Copper	(Virgin : 0.4 mg/kg (Refined: 0.1 mg/kg)
Ø Lead	: 0.1 mg/kg
Ø Arsenic	: 0.1 mg/kg

(Ø The limits for Copper, Lead and Arsenic should fall within any overall limits for heavy metals specified for all foods by the Codex Committee on Food Additives. The limits proposed are put forward as technologically unavoidable.)

5. LABELLING

- 5.1. General The provisions of this paragraph are subject to endorsement by the Codex Committee on Food Labelling and to any general provisions laid down by that Committee and subsequently approved by the Commission.
- 5.2. All products designated as 'Sunflowerseed Oil' or 'Sunflower Oil' must conform to this standard.
- 5.3. Where a sunflower oil has been subject to processing which alters its physical characteristics the name 'Sunflowerseed Oil' or any synonym shall not be used unless qualified to indicate the nature of the process.

6. METHODS OF ANALYSIS AND SAMPLING

PROPOSED DRAFT PROVISIONAL STANDARD FOR RAPESEED OIL(Step 5 of the Procedure)1. DEFINITION1.1. Derivation

Rapeseed Oil is derived from the seeds of Brassica campestris, Brassica napus and Brassica tournefortii.

1.2. Synonyms

Turnip Rape Oil

Colza Oil

Ravison Oil

Sarson Oil

Toria Oil

1.3. Identity CharacteristicsRanges

Relative Density (20°C/water at 20°C)	: 0.910 - 0.920
Refractive Index ($n_D^{40^\circ\text{C}}$)	: 1.465 - 1.469
Saponification Value (mg.KOH/g.oil)	: 168 - 181
Unsaponifiable Matter (%)	: 2.0 (maximum)
Iodine Value (Wij's)	: 94 - 120
Crismer Value	: 80 - 85

2. QUALITY CHARACTERISTICS2.1. Colour, Odour and Taste

Characteristic of the designated product and; as respects odour and taste, either bland or free from foreign and rancid odour and taste.

2.2. Acid Value (mg. KOH per g.)

At the time of leaving Refinery 0.2 max.

Retail sale 0.4 max.

2.3. Peroxide Value (meq. per kg)

At time of leaving Refinery 1.0 max.

Retail sale 10.0 max.

3. ADDITIVES

3.1. The substances approved by the Codex Committee on Food Additives specifically as suitable for use in fats and oils for human consumption. [The following are recommended for consideration by the Codex Committee on Food Additives] :-

3.2. Antioxidants

- (a) Propyl - octyl - dodecyl gallates, individually or in combination, up to 100 mg/kg;
- (b) BHA, BHT, individually or in combination up to 200 mg/kg;
- (c) Any combination of gallates with BHA or BHT, or both, up to 200 mg/kg, but the amount of gallates not to exceed 100 mg/kg;
- (d) Natural or synthetic tocopherols;
- (e) Ascorbyl palmitate, up to 200 mg/kg.

3.3. Synergists

Citric acid

4. CONTAMINANTS

The following maximum limits by weight shall apply:-

Matter volatile at 105° C	:	0.2%
Insoluble impurities	:	0.05%
Soap content	:	0.005%
Iron	:	1.5 mg/kg
♠ Copper	(Virgin	: 0.4 mg/kg
	(Refined	: 0.1 mg/kg
♠ Lead	:	0.1 mg/kg
♠ Arsenic	:	0.1 mg/kg

(♠ The limits for Copper, Lead and Arsenic should fall within any overall limits for heavy metals specified for all foods by the Codex Committee on Food Additives. The limits proposed are put forward as technologically unavoidable).

5. LABELLING

5.1. General The provisions of this paragraph are subject to endorsement by the Codex Committee on Food Labelling and to any general provisions laid down by that Committee and subsequently approved by the Commission.

5.2. All products designated as 'Rapeseed Oil', 'Turnip Rape Oil', 'Colza Oil', 'Ravison Oil', 'Sarson Oil' or 'Toria Oil' must conform to this standard.

5.3. Oil produced from the seeds of Eruca sativa and conforming to the standard may be designated as 'Jamba Rape Oil'.

[5.4. Where a rapeseed oil has been subject to processing which alters its physical characteristics the name of 'Rapeseed Oil' or any synonym shall not be used unless qualified to indicate the nature of the process.]

6. METHODS OF ANALYSIS AND SAMPLING

(Subject to endorsement by the Codex Committee on Methods of Analysis and Sampling)

[Crismer Value - A.O.C.S. Official Method Cb.4 - 35].

PROPOSED DRAFT PROVISIONAL STANDARD FORMAIZE OIL(Step 5 of the Procedure)1. DEFINITION1.1. Derivation

Maize oil is derived from maize germ (the embryos of Zea mays L.)

1.2. Synonyms

Corn Oil.

1.3. Identity Characteristics

	<u>Ranges</u>
Relative Density (20 C/water at 20 C)	: 0.917 - 0.925
Refractive Index ($n_D^{40^\circ C}$)	: 1.465 - 1.468
Saponification Value (mg. KOH per g. oil)	: 187 - 195
Unsaponifiable Matter (%)	: 2.8 (maximum)
Iodine Value (Wijs)	: 103 - 128

2. QUALITY CHARACTERISTICS2.1. Colour, Odour and Taste

Characteristic of the designated product and, as respects odour and taste, either bland or free from foreign rancid odour and taste.

2.2. Acid Value (mg. KOH per g)

At time of leaving Refinery	0.2 max.
Retail sale	0.4 max.

2.3. Peroxide Value (meq. per kg)

At time of leaving Refinery	1.0 max.
Retail sale	10.0 max.

3. ADDITIVES

- 3.1. The substances approved by the Codex Committee on Food Additives specifically as suitable for use in fats and oils for human consumption The following are recommended for consideration by the Codex Committee on Food Additives. /:-

3.2. Antioxidants

- (a) Propyl - octyl - and dodecyl gallates, individually or in combination, up to 100 mg/kg;
- (b) BHA, BHT, individually or in combination up to 200 mg/kg;
- (c) Any combination of gallates with BHA or BHT; or both, up to 200 mg/kg, but the amount of gallates not to exceed 100 mg/kg;
- (d) Natural and synthetic tocopherols;
- (e) Ascorbyl palmitate, up to 200 mg/kg.

3.3. Synergists

Citric acid

4. CONTAMINANTS

The following maximum limits by weight shall apply:-

Matter volatile at 105°C	:	0.2%
Insoluble impurities	:	0.05%
Soap content	:	0.005%
Iron	:	1.5 mg/kg
∅ Copper	: (Virgin	0.4 mg/kg
	(Refined	0.1 mg/kg
∅ Lead	:	0.1 mg/kg
∅ Arsenic	:	0.1 mg/kg

(∅ The limits for Copper, Lead and Arsenic should fall within any overall limits for heavy metals specified for all foods by the Codex Committee on Food Additives. The limits proposed are put forward as technologically unavoidable.)

5. LABELLING

5.1. General. The provisions of this paragraph are subject to endorsement by the Codex Committee on Food Labelling and to any general provisions laid down by that Committee and subsequently approved by the Commission.

5.2. All products designated as 'Maize Oil' or 'Corn Oil' must conform to this standard.

5.3. Where a maize oil has been subject to processing which alters its physical characteristics the name 'Maize Oil' or any synonym shall not be used unless qualified to indicate the nature of the process.

6. METHODS OF ANALYSIS AND SAMPLING

PROPOSED DRAFT PROVISIONAL STANDARD FOR
SESAMESEED OIL

(Step 5 of the Procedure)

1. DEFINITION

1.1. Derivation

Sesame seed Oil is derived from sesame seeds (the seeds of Sesamum indicum L).

1.2. Synonyms

Sesame Oil

Gingelly Oil

Benne Oil

Ben Oil

Till Oil

Tillie Oil

1.3. Identity Characteristics

Ranges

Relative Density (20° C/water at 20°C)	:	0.915 - 0.923
Refractive Index (n _D ^{40°C})	:	1.465 - 1.469
Saponification Value (mg. KOH per g.oil)	:	187 - 195
Unsaponifiable Matter (%)	:	2.0 (maximum)
Iodine Value (Wijs)	:	104-120

1.4. Specific Tests

Modified Villavechia Test or Sesame Oil Test (Baudoin)

2. QUALITY CHARACTERISTICS

2. 1. Colour, Odour and Taste

Characteristic of the designated product and as respects odour and taste, either bland or free from foreign and rancid odour and taste.

2. 2. Acid Value (mg. KOH per g)

At the time of leaving Refinery	:	0.2 max.
Retail sale	:	0.4 max.

2.3. Peroxide Value (meq. per kg)

At time of leaving Refinery	:	1.0 max
Retail sale	:	10.0 max.

3. ADDITIVES

3.1. The substances approved by the Codex Committee on Food Additives specifically as suitable for use in fats and oils for human consumption (The following are recommended for consideration by the Codex Committee on Food Additives.) :-

3.2. Antioxidants

- (a) Propyl - octyl - and dodecyl gallates, individually or in combination, up to 100 mg/kg;
- (b) BHA, BHT, individually or in combination up to 200 mg/kg;
- (c) Any combination of gallates with BHA or BHT, or both, up to 200 mg/kg. but the amount of gallates not to exceed 100 mg/kg;
- (d) Natural and synthetic tocopherols;
- (e) Ascorbyl palmitate up to 200 mg/kg.

3.3. Synergists

Citric acid

4. CONTAMINANTS

The following maximum limits by weight shall apply:-

Matter volatile at 105°C	:	0.2 per cent
Insoluble impurities	:	0.05 per cent
Soap content	:	0.005 per cent
Iron	:	1.5 mg/kg
β Copper	:	{ Virgin : 0.4 mg/kg Refined: 0.1 mg/kg
β Lead	:	0.1 mg/kg
β Arsenic	:	0.1 mg/kg

(β The limits for Copper, Lead and Arsenic should fall within any overall limits for heavy metals specified for all foods by the Codex Committee on Food Additives. The limits proposed are put forward as technologically unavoidable.)

5. LABELLING

5.1. General. The provisions of this paragraph are subject to ratification by the Codex Committee on Food Labelling and to any general provisions laid down by that Committee and subsequently approved by the Commission.

5.2. All products designated as 'Sesameseed Oil', 'Sesame Oil', 'Gingelly Oil', 'Benne Oil', 'Ben Oil', 'Till Oil' or 'Tillie Oil' must conform to this standard.

5.3. Where a sesameseed oil has been subject to processing which alters its physical characteristics the name 'Sesameseed Oil' or any synonym shall not be used unless qualified to indicate the nature of the process.]

6. METHODS OF ANALYSIS AND SAMPLING.

[(a) Modified Villavechia Test - A.O.C.S. Official Method Cb2 - 40

(b) Sesame Oil Test (Baudoin) - Page 96, British Standard 684 : 1958.]

(Subject to endorsement by the Codex Committee on Methods of Analysis and Sampling.)

PROPOSED DRAFT PROVISIONAL STANDARD FOR
SAFFLOWERSEED OIL
 (Step 5 of the Procedure)

1. DEFINITION1.1. Derivation

Safflowerseed Oil is derived from safflower seeds (the seeds of Carthamus tinctorius).

1.2. Synonyms

Safflower Oil

Carthamus Oil

Kurdee Oil

1.3. Identity CharacteristicsRanges

Relative Density (20°C/water at 20°C) : 0.922 - 0.927

Refractive Index ($n_D^{40^\circ C}$) : 1.467 - 1.470

Saponification Value (mg. KOH per g.oil) : 186 - 198

Unsaponifiable Matter (%) : 1.5 maximum

Iodine Value (Wij's) : 135 - 150

2. QUALITY CHARACTERISTICS2.1. Colour, Odour and Taste

Characteristic of the designated product and, as respects odour and taste, either bland or free from foreign and rancid odour and taste.

2.2. Acid Value (mg. KOH per g.)

At time of leaving Refinery : 0.2 max.

Retail sale : 0.4 max.

2.3. Peroxide Value (meq. per kg)

At time of leaving Refinery : 1.0 max.

Retail sale : 10.0 max.

3. ADDITIVES

3.1. The substances approved by the Codex Committee on Food Additives specifically as suitable for use in fats and oils for human consumption. [The following are recommended for consideration by the Codex Committee on Food Additives] :-

3.2. Antioxidants

- (a) Propyl - octyl - and dodecyl gallates, individually or in combination, up to 100 mg/kg;
- (b) BHA, BHT, individually or in combination up to 200 mg/kg;
- (c) Any combination of gallates with BHA or BHT, or both, up to 200 mg/kg; but the amount of gallates not to exceed 100 mg/kg;
- (d) Natural and synthetic tocopherols;
- (e) Ascorbyl palmitate, up to 200 mg/kg.

3.3. Synergists

Citric acid

4. CONTAMINANTS

The following maximum limits by weight shall apply:-

Matter volatile at 105°C	:	0.2 per cent
Insoluble impurities	:	0.05 per cent
Soap content	:	0.005 per cent
Iron	:	1.5 mg/kg
Ø Copper	:	{ Virgin 0.4 mg/kg { Refined 0.1 mg/kg
Ø Lead	:	0.1 mg/kg
Ø Arsenic	:	0.1 mg/kg

(Ø The limits for Copper, Lead and Arsenic should fall within any overall limits for heavy metals specified for all foods by the Codex Committee on Food Additives. The limits proposed are put forward as technologically unavoidable.)

5. LABELLING

5.1. General The provisions of this paragraph are subject to ratification by the Codex Committee on Food Labelling and to any general provisions laid down by that Committee and subsequently approved by the Commission.

5.2. All products designated as 'Safflowerseed Oil', 'Safflower Oil', 'Carthamus Oil' or 'Kurdee Oil' must conform to this standard.

5.3. Where a safflowerseed oil has been subject to processing which alters its physical characteristics the name 'Safflowerseed Oil' or any synonym shall not be used unless qualified to indicate the nature of the process.

6. METHODS OF ANALYSIS AND SAMPLING

PROPOSED DRAFT PROVISIONAL STANDARD FOR LARD(Step 5 of the Procedure)1. DEFINITION1.1 Derivation

Lard is the fat rendered from fresh, clean, sound fatty tissues from swine (*sus scrofa*) in good health, at the time of slaughter and fit for human consumption as determined by a competent authority recognised in national legislation. The tissues do not include bones, detached skin, head skin, ears, tails, organs, windpipes, large blood vessels, scrap fat, skimmings, settlings, pressings and the like, and are reasonably free from muscle tissues and blood.

1.2 Identity Characteristics

	<u>Range</u>
Relative Density (40° C/water at 20° C)	: 0.896 - 0.904
Refractive Index ($n_D^{40^\circ C}$)	: 1.448 - 1.460
Titre (°C)	: 32 - 45
Saponification Value (mg. KOH per g.fat)	: 192 - 203
Unsaponifiable Matter (%)	: 1.0 max.
Iodine Value (Wija)	: 45 - 70

2. SPECIFIC TESTS

[to be considered, e.g. Boehmer Value]

3. QUALITY CHARACTERISTICS

- 3.1 Colour : White when solid
- 3.2 Odour and taste : Characteristic and free from foreign odours and tastes.

3.3 Acid Value (mg. KOH per g.)

At time of leaving place of manufacture or refinery 1.0 max.
Retail sale 1.3 max.

3. Peroxide Value (meq. per kg)

At time of leaving place of manufacture or refinery 6.0 max.
Retail sale 10.0 max.

4. ADDITIVES

- 4.1 The substances approved by the Codex Committee on Food Additives, specifically as suitable for use in fats and oils for human consumption. The following are recommended for consideration by the Codex Committee on Food Additives:

4.2 Antioxidants

- (a) Propyl, octyl and dodecyl gallates, individually or in combination up to 100 mg/kg.
- (b) BHA, BHT, individually or in combination up to 200 mg/kg.
- (c) NDGA, up to 100 mg/kg.
- (d) Any combination of the above antioxidants, within the limits specified, up to 200 mg/kg, but the amount of gallates and of NDGA not to exceed 100 mg/kg.
- (e) Resin guaiac, up to 1000 mg/kg.
- (f) Natural and synthetic tocopherols.
- (g) Ascorbyl palmitate, up to 200 mg/kg.

4.3 Synergists

- (a) Citric acid
- (b) Monoisopropyl citrate up to 100 mg/kg.
- (c) Phosphoric acid up to 100 mg/kg.
- (d) Monoglyceride citrate up to 100 mg/kg.
- (e) Any combination of (b) to (d), within the limits specified, not to exceed a total of 100 mg/kg.

5. CONTAMINANTS

The following maximum limits, by weight shall apply:-

Matter volatile at 105°C	:	0.3%
Impurities	:	0.05%
Soap content	:	Nil
Iron	:	1.5 mg/kg
* Copper	:	0.4 mg/kg
* Arsenic	:	0.1 mg/kg
* Lead	:	0.1 mg/kg

(*The limits for Copper, Arsenic and Lead should fall within any overall limits specified for all foods by the Codex Committee on Food Additives. The proposed limits are put forward as technologically unavoidable.)

6. Lard Subjected to Processing

Lard may contain refined lard, lard stearine and hydrogenated lard, provided that it is labelled in accordance with paragraph 7.3 of this standard.

7. LABELLING

7.1 General The provisions of this paragraph are subject to endorsement by the Codex Committee on Food Labelling and to any general provisions laid down by that Committee and subsequently approved by the Commission.

7.2 All products designated as 'Lard' must conform to this standard.

7.3 If refined lard, lard stearine or hydrogenated lard are present, this must be declared in the designation of the product.

8. METHODS OF SAMPLING AND ANALYSIS

PROPOSED DRAFT PROVISIONAL STANDARD FOR RENDERED PORK FAT

(Step 5 of the Procedure)

1. DEFINITION

1.1 Derivation

Rendered pork fat is the fat rendered from the tissues and bones of swine (sus scrofa) in good health at time of slaughter and fit for human consumption as judged by a competent authority recognised by national legislation. It may contain fat from bones (properly cleaned), from detached skin, from head skin, from ears and from tails. The tissues do not include stomachs, organs, glands, large blood vessels, scrap fat, skimmings, settlings, pressings and the like.

1.2 Identity Characteristics

	<u>Range</u>
Relative Density (40°C/water at 20°C)	: 0.894 - 0.906
Refractive Index ($n_D^{40^\circ C}$)	: 1.448 - 1.461
Titre (°C)	: 32 - 45
Saponification Value (mg. KOH per g.fat)	: 192 - 203
Unsaponifiable matter (%)	: 1.2 max.
Iodine Value (Wijs)	: 45 - 70

2. SPECIFIC TESTS

[to be developed]

3. QUALITY CHARACTERISTICS

3.1 Colour : White when solid

3.2 Odour and Taste : Characteristic, and free from foreign odours and tastes.

3.3 Acid value (mg. KOH per g.)

At time of leaving place of manufacture or Refinery : 2.0 max.
Retail sale : 2.5 max.

3.4 Peroxide Value (meq. per kg)

At time of leaving place of manufacture or Refinery : 8.0 max.
Retail sale : 16.0 max.

4. ADDITIVES

4.1 The substances approved by the Codex Committee on Food Additives specifically as suitable for use in fats and oils for human consumption, /The following are recommended for consideration by the Codex Committee on Food Additives/:-

4.2 Antioxidants

- (a) Propyl, octyl and dodecyl gallates, individually or in combination up to 100 mg/kg.
- (b) BHA, BHT, individually or in combination up to 200 mg/kg.
- (c) NDGA, up to 100 mg/kg.
- (d) Any combination of the above antioxidants, within the limits specified, up to 200 mg/kg., but the amount of gallates and of NDGA not to exceed 100 mg/kg.
- (e) Resin guaiac, up to 1000 mg/kg.
- (f) Natural and synthetic tocopherols.
- (g) Ascorbyl palmitate, up to 200 mg/kg.

4.3 Synergists

- (a) Citric acid.
- (b) Monoisopropyl citrate up to 100 mg/kg.
- (c) Phosphoric acid up to 100 mg/kg.
- (d) Monoglyceride citrate up to 100 mg/kg.
- (e) Any combination of (b) to (d), within the limits specified, not to exceed a total of 100 mg/kg.

5. CONTAMINANTS

The following maximum limits, by weight, shall apply:-

Matter volatile at 105°C	:	0.3%
Impurities	:	0.05%
Soap content	:	0.005%
Iron	:	1.5 mg/kg
* Copper	:	0.4 mg/kg
* Arsenic	:	0.1 mg/kg
* Lead	:	0.1 mg/kg

(*The limits for Copper, Arsenic and Lead should fall within any overall limits specified for all foods by the Codex Committee on Food Additives. The proposed limits are put forward as technologically unavoidable.)

6. Rendered Pork Fat Subjected to Processing

Rendered Pork Fat may contain refined lard, refined rendered pork fat, hydrogenated lard, hydrogenated rendered pork fat, lard stearine and rendered pork fat stearine, provided it is labelled in accordance with paragraph 7.3 of this standard.

7. LABELLING

7.1 General. The provisions of this paragraph are subject to endorsement by the Codex Committee on Food Labelling and to any general provisions laid down by that Committee and subsequently approved by the Commission.

7.2 All products designated as 'Rendered Pork Fat' must conform to this standard.

7.3 If refined lard, refined rendered pork fat, hydrogenated lard, hydrogenated rendered pork fat, lard stearine or rendered pork fat stearine are present, this must be declared in the designation of the product.

8. METHODS OF SAMPLING AND ANALYSIS

PROPOSED DRAFT PROVISIONAL STANDARD FOR PREMIER JUS(Step 5 of the Procedure)1. DEFINITION1.1 Derivation

Premier Jus is the product obtained by rendering at low heat the fresh fat (killing fat) of heart, caul, kidney and mesentery collected at the time of slaughter of bovine animals (Bos taurus) in good health at the time of slaughter and fit for human consumption as determined by a competent authority recognised in national legislation. The raw material does not include cutting fats.

1.2 Synonyms

Oleo Stock

1.3 Identity Characteristics

	<u>Range</u>
Relative Density (40°C/water at 20°C)	0.893 - 0.898
Refractive Index ($n_D^{40^\circ C}$)	1.443 - 1.460
Titre (°C)	42.5 - 47
Saponification value (mg. KOH per g.fat)	190 - 200
Unsaponifiable Matter (%)	1.0 max.
Iodine value (Wijs)	32 - 47

2. QUALITY CHARACTERISTICS

2.1 Colour : Creamy white to pale yellow.

2.2 Odour and Taste : Characteristic and free from foreign odours and tastes.

2.3 Acid Value (mg. KOH per g.)

At time of leaving place of manufacture	: 1.5 max.
Retail sale	: 2.0 max.

2.4 Peroxide Value (meq. per kg)

At time of leaving place of manufacture	: 6.0 max.
Retail sale	: 10.0 max.

3. ADDITIVES

3.1 The substances approved by the Codex Committee on Food Additives, specifically as suitable for use in fats and oils for human consumption. [The following are recommended for consideration by the Codex Committee on Food Additives]:

3.2 Antioxidants

- (a) Propyl, octyl and dodecyl gallates, individually or in combination up to 100 mg/kg.
- (b) BHA, BHT, individually or in combination up to 200 mg/kg.
- (c) NDGA, up to 100 mg/kg.
- (d) Any combination of the above antioxidants, within the limits specified, up to 200 mg/kg., but the amount of gallates and of NDGA not to exceed 100 mg/kg.
- (e) Resin guaiac up to 1000 mg/kg.
- (f) Natural and synthetic tocopherols.
- (g) Ascorbyl palmitate, up to 200 mg/kg.

3.3 Synergists

- (a) Citric acid
- (b) Monoisopropyl citrate up to 100 mg/kg
- (c) Phosphoric acid up to 100 mg/kg
- (d) Monoglyceride citrate up to 100 mg/kg
- (e) Any combination of (b) to (d), within the limits specified, not to exceed a total of 100 mg/kg.

4. CONTAMINANTS

The following maximum limits, by weight, shall apply:-

Matter volatile at 105°C	:	0.3%
Impurities	:	0.05%
Soap content	:	Nil
Iron	:	1.5 mg/kg
* Copper	:	0.4 mg/kg
* Arsenic	:	0.1 mg/kg
* Lead	:	0.1 mg/kg

(*The limits for Copper, Arsenic and Lead should fall within any overall limits specified for all foods by the Codex Committee on Food Additives. The proposed limits are put forward as technologically unavoidable.)

5. LABELLING

- 5.1 General. The provisions of this paragraph are subject to endorsement by the Codex Committee on Food Labelling and to any general provisions laid down by that Committee and subsequently approved by the Commission.

5.2 All products designated as 'Premier Jus' or 'Oleo Stock' must conform to this standard.

6. METHODS OF SAMPLING AND ANALYSIS

PROPOSED DRAFT PROVISIONAL STANDARD FOR EDIBLE TALLOW(Step 5 of the Procedure)1. DEFINITION1.1 Derivation

Edible Tallow is the product obtained by rendering the clean, sound, fatty tissues (including trimming and cutting fats), attendant muscles and bones of bovine animals (Bos taurus) and/or sheep (Ovis aries) in good health at the time of slaughter and fit for human consumption as determined by a competent authority recognised in national legislation.

1.2 Synonym

Dripping

1.3 Identity Characteristics

	<u>Range</u>
Relative Density (40°C/water at 20°C)	: 0.893 - 0.904
Refractive Index ($n_D^{40^\circ C}$)	: 1.448 - 1.460
Titre (°C)	: 40 - 49
Saponification value (mg. KOH per g.fat)	: 190 - 202
Unsaponifiable matter (%)	: 1.2 max.
Iodine value (Wijs)	: 32 - 50

2. QUALITY CHARACTERISTICS

2.1 Colour : Off-white to pale yellow

2.2 Odour and taste : Characteristic and free from foreign odours and tastes.

2.3 Acid value (mg KOH per g.)

At time of leaving place of manufacture or Refinery : 2.0 max.
Retail sale : 2.5 max.

2.4 Peroxide value (meq. per kg)

At time of leaving place of manufacture or Refinery : 8.0 max.
Retail sale : 16.0 max.

3. ADDITIVES

3.1 The substances approved by the Codex Committee on Food Additives, specifically as suitable for use in fats and oils for human consumption, (The following are recommended for consideration by the Codex Committee on Food Additives) :-

3.2 Antioxidants

- (a) Propyl, octyl and dodecyl gallates, individually or in combination, up to 100 mg/kg.
- (b) BHA, BHT, individually or in combination up to 200 mg/kg.
- (c) NDGA, up to 100 mg/kg.
- (d) Any combination of the above antioxidants, within the limits specified, up to 200 mg/kg., but the amount of gallates and of NDGA not to exceed 100 mg/kg.
- (e) Resin gualiac, up to 1000 mg/kg.
- (f) Natural and synthetic tocopherols.
- (g) Ascorbyl palmitate, up to 200 mg/kg.

3.3 Synergists

- (a) Citric acid
- (b) Monoisopropyl citrate up to 100 mg/kg
- (c) Phosphoric acid up to 100 mg/kg
- (d) Monoglyceride citrate up to 100 mg/kg.
- (e) Any combination of (b) to (d), within the limits specified, not to exceed a total of 100 mg/kg.

4. CONTAMINANTS

The following maximum limits, by weight, shall apply:-

Matter volatile at 105°C	:	0.3%
Impurities	:	0.05%
Soap content	:	0.005%
Iron	:	1.5 mg/kg
* Copper	:	0.4 mg/kg
* Arsenic	:	0.1 mg/kg.
* Lead	:	0.1 mg/kg

(*The limits for Copper, Arsenic and Lead should fall within any overall limits specified for all foods by the Codex Committee on Food Additives. The proposed limits are put forward as technologically unavoidable.)

5. Edible Tallow Subjected to Processing

Edible tallow may contain refined edible tallow, provided it is labelled in accordance with paragraph 6.4 of this standard.

6. LABELLING

- 6.1 General. The provisions of this paragraph are subject to endorsement by the Codex Committee on Food Labelling and to any general provisions laid down by that Committee and subsequently approved by the Commission.

6.2 All products designated as 'Edible Tallow' or 'Dripping' must conform to this standard.

6.3 Any product designated as 'Beef Tallow' must be produced exclusively from bovine fat and any product designated 'Mutton Tallow' must be produced exclusively from sheep fat.

6.4 If refined Edible Tallow is present, this must be declared in the designation of the product.

7. METHODS OF SAMPLING AND ANALYSIS.

MUSTARD SEED OIL1.1 Derivation

Mustard seed oil is derived from the seeds of the white mustard (Brassica alba), the brown mustard (Brassica juncea) and of the black mustard (Brassica nigra)

1.2 Identity Characteristics

	<u>Range</u>
Relative density (20°C/water at 20°C)	: 0.915 - 0.921
Refractive index ($n_D^{40^\circ\text{C}}$)	: 1.461 - 1.469
Saponification value (mg KOH/g.)	: 170 - 184
Unsaponifiable matter (%)	: 1.5 max.
Iodine value (Wijs)	: 92 - 125

FATTY ACID COMPOSITION BY GAS-LIQUID CHROMATOGRAPHYARACHIS OIL

Optional (Method of analysis subject to agreement and acceptance by both buyer and seller.)

- | | |
|--|----------------|
| (a) Saturated fatty acids of chain-length shorter than 14 carbon atoms. | None |
| (b) Unsaturated fatty acids of chain-length longer than 18 carbon atoms. | None |
| (c) Ratio of saturated to unsaturated fatty acid - | 0.13 to 0.28 |
| (d) Oleic acid content | 53% to 71% |
| (e) Linoleic acid content | 13% to 33% |
| (f) Linolenic acid content | not applicable |
| (g) Ratio of total fatty acids of chain - length longer than 18 carbon atoms to those of chain-length equal or shorter than 18 carbon atoms... | not applicable |

Notes

- (1) For the purpose of this standard, a fatty acid present at X% of the total fatty acids is considered to be absent.
- (2) Method of Analysis - AOCS Tentative Method Ce 1 - 62, Corrected 1964
~~1~~ AOCS Method Ce 2 - 66

FATTY ACID COMPOSITION BY GAS-LIQUID CHROMATOGRAPHYCOTTONSEED OIL

Optional (Method of analysis subject to agreement and acceptance by both buyer and seller.)

- | | | |
|-----|---|----------------|
| (a) | Saturated fatty acids of chain-length shorter than 14 carbon atoms. | None |
| (b) | Unsaturated fatty acids of chain-length longer than 18 carbon atoms. | None |
| (c) | Ratio of saturated to unsaturated fatty acid - | 0.3 to 0.6 |
| (d) | Oleic acid content | 23% to 35% |
| (e) | Linoleic acid content | 40% to 54% |
| (f) | Linolenic acid content | not applicable |
| (g) | Ratio of total fatty acids of chain-length longer than 18 carbon atoms to those of chain-length equal or shorter than 18 carbon atoms.... | not applicable |

Notes

- (1) For the purpose of this standard, a fatty acid present at $X\%$ of the total fatty acids is considered to be absent.
- (2) Method of Analysis - AOCS Tentative Method Ce 1 - 62, Corrected 1964
 $\sqrt{\&}$ AOCS Method Ce 2 - 66

FATTY ACID COMPOSITION BY GAS-LIQUID CHROMATOGRAPHY

MAIZE OIL

Optional (Method of analysis subject to agreement and acceptance by both buyer and seller.)

(a) Saturated fatty acids of chain-length shorter than 14 carbon atoms.	None
(b) Unsaturated fatty acids of chain-length longer than 18 carbon atoms.	None
(c) Ratio of saturated to unsaturated fatty acid -	0.15 to 0.25
(d) Oleic acid content	19% to 39%
(e) Linoleic acid content	34% to 62%
(f) Linolenic acid content	Not applicable
(g) Ratio of total fatty acids of chain-length longer than 18 carbon atoms to those of chain-length equal or shorter than 18 carbon atoms....	Not applicable

Notes

- (1) For the purpose of this standard, a fatty acid present at $\frac{1}{2}\%$ of the total fatty acids is considered to be absent.
- (2) Method of analysis - AOCS - Tentative Method Ce 1 - 62, Corrected 1964, & AOCS Method Ce - 66

FATTY ACID COMPOSITION BY GAS-LIQUID CHROMATOGRAPHYRAPESEED OIL

Optional (Method of analysis subject to agreement and acceptance by both buyer and seller.)

- | | | |
|-----|---|----------------|
| (a) | Saturated fatty acids of chain-length shorter than 14 carbon atoms. | None |
| (b) | Unsaturated fatty acids of chain-length longer than 18 carbon atoms. | Present |
| (c) | Ratio of saturated to unsaturated fatty acid - | 0.05 to 0.08 |
| (d) | Oleic acid content | Not applicable |
| (e) | Linoleic acid content | Not applicable |
| (f) | Linolenic acid content | 10% max. |
| (g) | Ratio of total fatty acids of chain-length longer than 18 carbon atoms to those of chain-length equal or shorter than 18 carbon atoms.... | 1.2 to 1.5 |

Notes

- (1) For the purpose of this standard, a fatty acid present at X% of the total fatty acids is considered to be absent.
- (2) Methods of analysis - AOCs - Tentative Method Ce 1 - 62, Corrected 1964
& AOCs Method Ce - 66

FATTY ACID COMPOSITION BY GAS-LIQUID CHROMATOGRAPHYSAFFLOWERSEED OIL

Optional (Method of analysis subject to agreement and acceptance by both buyer and seller.)

- | | | |
|-----|---|----------------|
| (a) | Saturated fatty acids of chain-length shorter than 14 carbon atoms. | None |
| (b) | Unsaturated fatty acids of chain-length longer than 18 carbon atoms. | None |
| (c) | Ratio of saturated to unsaturated fatty acid - | 0.04 to 0.12 |
| (d) | Oleic acid content | 13% to 21% |
| (e) | Linoleic acid content | 73% to 80% |
| (f) | Linolenic acid content | Not applicable |
| (g) | Ratio of total fatty acids of chain-length longer than 18 carbon atoms to those of chain-length equal or shorter than 18 carbon atoms.... | Not applicable |

Notes

- (1) For the purpose of this standard, a fatty acid present at $\frac{X}{100}$ of the total fatty acids is considered to be absent.
- (2) Method of analysis - AOCS - Tentative Method Ce 1 - 62, Corrected 1964, & AOCS Method Ce - 66

FATTY ACID COMPOSITION BY GAS-LIQUID CHROMATOGRAPHYSESAMESEED OIL

Optional (Method of analysis subject to agreement and acceptance by both buyer and seller.)

- | | |
|---|----------------|
| (a) Saturated fatty acids of chain-length shorter than 14 carbon atoms. | None |
| (b) Unsaturated fatty acids of chain-length longer than 18 carbon atoms. | None |
| (c) Ratio of saturated to unsaturated fatty acid - | 0.13 to 0.20 |
| (d) Oleic acid content | 37% to 49% |
| (e) Linoleic acid content | 35% to 50% |
| (f) Linolenic acid content | None |
| (g) Ratio of total fatty acids of chain-length longer than 18 carbon atoms to those of chain-length equal or shorter than 18 carbon atoms.... | Not applicable |

Notes

- (1) For the purpose of this standard, a fatty acid present at X% of the total fatty acids is considered to be absent.
- (2) Method of analysis - AOCS - Tentative Methods Ce 1 - 62, Corrected 1964
 [& AOCS Method Ce - 66]

FATTY ACID COMPOSITION BY GAS-LIQUID CHROMATOGRAPHY

SOYA BEAN OIL

Optional (Method of analysis subject to agreement and acceptance by both buyer and seller.)

- | | |
|---|--------------------|
| (a) Saturated fatty acids of chain-length shorter than 14 carbon atoms. | None |
| (b) Unsaturated fatty acids of chain-length longer than 18 carbon atoms. | None |
| (c) Ratio of saturated to unsaturated fatty acid - | Range 0.12 to 0.20 |
| (d) Oleic acid content | Not applicable |
| (e) Linoleic acid content | 43% to 56% |
| (f) Linolenic acid content | 6% to 13% |
| (g) Ratio of total fatty acids of chain-length longer than 18 carbon atoms to those of chain-length equal or shorter than 18 carbon atoms.... | 1.2 to 1.5 |

Notes

- (1) For the purpose of this standard, a fatty acid present at X% of the total fatty acids is considered to be absent.
- (2) Method of Analysis - AOCs Tentative Method Ce 1 - 62, Corrected 1964
& AOCs Method Ce 2 - 65

FATTY ACID COMPOSITION BY GAS-LIQUID CHROMATOGRAPHYSUNFLOWERSEED OIL

Optional (Method of analysis subject to agreement and acceptance by both buyer and seller.)

- | | | |
|-----|---|----------------|
| (a) | Saturated acids of chain-length shorter than 14 carbon atoms. | None |
| (b) | Unsaturated fatty acids of chain-length longer than 18 carbon atoms. | None |
| (c) | Ratio of saturated to unsaturated fatty acid - | 0.08 to 0.20 |
| (d) | Oleic acid content | 14% to 35% |
| (e) | Linoleic acid content | 44% to 75% |
| (f) | Linolenic acid content | Not applicable |
| (g) | Ratio of total fatty acids of chain-length longer than 18 carbon atoms to those of chain-length equal or shorter than 18 carbon atoms.... | Not applicable |

Notes

- (1) For the purpose of this standard, a fatty acid present at X% of the total fatty acids is considered to be absent.
- (2) Method of Analysis - AOCS Tentative Method Ce 1 - 62, Corrected 1964
~~2~~ & AOCS Method Ce 2 - 667

FATTY ACID COMPOSITION BY GAS-LIQUID CHROMATOGRAPHY

LARD /& RENDERED PORK FAT/

Optional (Method of analysis subject to agreement and acceptance by both buyer and seller.)

- | | |
|---|----------------|
| (a) Saturated fatty acids of chain-length shorter than 14 carbon atoms. | None |
| (b) Unsaturated fatty acids of chain-length longer than 18 carbon atoms. | 3% (max.) |
| (c) Ratio of saturated to unsaturated fatty acids - | 0.25 to 0.90 |
| (d) Oleic acid content | Not applicable |
| (e) Linoleic acid content | Not applicable |
| (f) Linolenic acid content | None |
| (g) Ratio of total fatty acids of chain-length longer than 18 carbon atoms to those of chain-length equal or shorter than 18 carbon atoms.... | 0.02 (max.) |

Notes

- (1) For the purpose of this standard, a fatty acid present at X% of the total fatty acids is considered to be absent.
- (2) Method of analysis - AOCS - Tentative Method Ce 1 - 62, Corrected 1964.
/& AOCS Method Ce - 66/

FATTY ACID COMPOSITION BY GAS-LIQUID CHROMATOGRAPHYPREMIER JUS /& EDIBLE TALLOW/

<u>Optional</u>	(Method of analysis subject to agreement and acceptance by both buyer and seller.)	
(a)	Saturated fatty acids of chain-length shorter than 14 carbon atoms.	Present
(b)	Unsaturated fatty acids of chain-length longer than 18 carbon atoms.	1% (max.)
(c)	Ratio of saturated to unsaturated fatty acid -	0.9 to 2.5
(d)	Oleic acid content	Not applicable
(e)	Linoleic acid content	Not applicable
(f)	Linolenic acid content	None
(g)	Ratio of total fatty acids of chain-length longer than 18 carbon atoms to those of chain-length equal or shorter than 18 carbon atoms....	0.02 (max.)

Notes

- (1) For the purpose of this standard, a fatty acid present at X% of the total fatty acids is considered to be absent.
- (2) Method of analysis - AOCS - Tentative Method Ce 1 - 62, Corrected 1964
/& AOCS Method Ce - 66/

PROPOSED DRAFT PROVISIONAL STANDARDS FOR OLIVE OILS, VIRGIN AND REFINED,
AND FOR REFINED RESIDUE OLIVE OILS

(STEP 3 OF THE PROCEDURE)

1. DEFINITIONS

Olive oil is the oil obtained from the fruit of the olive-tree (Olea europaea L.) without having been subjected to manipulation or any form of unauthorized treatment.

The oils obtained from olives fall into the following three classes:

1.1. Olive Oil

1.1.1. Virgin Olive Oil

By virgin olive oil is meant the oil obtained from the fruit of the olive-tree by mechanical or other physical means under conditions, particularly thermal, which do not lead to alteration of the oil, and which may be consumed in the natural state.

Such oil may not contain additives of any type whatsoever.

1.1.2. Refined Olive Oil

By refined olive oil is meant the oil obtained from virgin olive oil, the acid content and/or organoleptic characteristics of which render it unsuitable for consumption in the natural state, by means of refining methods which do not lead to alterations in the initial glyceridic structure detectable by the methods of analysis specified below.

1.2. Refined Residue Olive Oil

By refined residue olive oil is meant the oil obtained from "olive residues" by extraction by means of solvents and made edible by treatment identical with that described in point 1.1.2.

1.3. Refined Olive Oils and Refined Residue Olive Oils may be sold alone or blended with Virgin Olive Oils.

2. IDENTIFICATION CHARACTERISTICS

The determination of the fatty acids by chromatography in the gaseous state (1) shows that the principal fatty acids in olive oil are oleic, linoleic and palmitic acids. Palmitoleic, linolenic and stearic acids are also present, but in smaller proportions, while minute quantities of arachidic, gadoleic, lignoceric and behenic acids may also be found. There is never more than 0.05% of myristic acid present, while neither lauric nor erucic acid is present in discernible quantities.

(1) See Methods of Analysis: M.A.1.

The following are the most probable compositional limits:

Palmitic	7.5 - 20.0 %
Palmitoleic	0.3 - 3.5 %
Stearic	0.5 - 3.5 %
Oleic	56.0 - 83.0 %
Linoleic	3.5 - 20.0 %
Linolenic	0.0 - 1.5 %

Since the above figures cover oils from all producing countries, the differences between the maxima and minima are very large(1). The differences noted in the various samples from one region are considerably less.

A characteristic feature of the unsaponifiable matter in olive oil is its content in squalene, higher than that of the other vegetable oils. Another marked feature is that its sterols are composed of practically pure betasitosterol.

2.1. Chemical and Physical Indices of Virgin and Refined Olive Oil

The values given below apply only to normal ecological conditions:

- Density (20°C/water at 20°C) (M.A.2)	0.910 - 0.916
- Refractive Index ($n_D^{20°C}$) (M.A.3)	1.4677 - 1.4705
- Iodine Value (Wijs) (M.A.4)	75 - 94
- Saponification Value (M.A.5)	184 - 196
- Unsaponifiable Matter (using light petroleum)(M.A.6).	\leq 1.5%
- Bellier Index (M.A.7)	\leq 17
- Semi-siccative oils test (M.A.8)	negative
- Residue olive oil test (M.A.9)	negative

The preceding determinations may be supplemented by the following colour tests:

Cottonseed oil test (M.A.10) -	negative
Tea oil test (M.A.11) -	negative
Sesame oil tests (M.A.12) -	negative

It is recommended that the results of these tests be confirmed by more precise methods (gaschromatography of the fatty acids, sterols, etc.) (M.A.1)

2.2. Chemical and Physical Indices of Refined Residue Olive Oil

- Density (20°C/water at 20°C) (M.A.2)	0.910 - 0.916
- Refractive Index ($n_D^{20°C}$) (M.A.3)	1.4680 - 1.4707

(1) Olive-oil Index-files: Following the recommendation of the IOOC (Document COI/R.11-11/6 (annex 5) of 1st October 1964), the member countries of the IOOC producing olive oil are publishing their national "Olive-oil Index-file" annually in which are indicated - in the case of each harvest and olive-growing area in the country in question - the characteristics and the limits of the physical and chemical indices of the different qualities of their virgin olive oils, determined at various moments during their olive crop year, as well as after eight months of normal storage of these same oils. This information has already been published by Argentina, Greece, Italy, Spain, Tunisia and Turkey. 68.

- Iodine Value (Wijs) (M.A.4) 75 - 92
- Saponification Value (M.A.5) 182 - 193
- Unsaponifiable Matter (using light petroleum)(M.A.6) \leq 2.5%

The unsaponifiable matter of residue olive oil contains more alcoholic compounds than that of virgin or refined olive oils, and its iodine value is therefore lower than that normally noted in virgin or refined olive oils, and its fusion point is higher.

Semi-siccative oil test (M.A.8) - negative

The preceding determinations may be supplemented by the following colour tests:

Cottonseed oil test (M.A.10) - negative
 Tea oil test (M.A.11) - negative
 Sesame oil tests (M.A.12) - negative

It is recommended that the results of these tests be confirmed by more precise methods (gaschromatography of the fatty acids, sterols, etc.) (M.A.1)

3. CHARACTERISTICS OF QUALITY

3.1. Virgin Olive Oil

3.1.1. Colour, Smell, Taste

Clear oils, of a yellow to green colour, with specific smell and taste, free of smells or tastes indicating alteration or pollution of the oil.

3.1.2. Acidity (M.A.13) (a)

Free acidity, expressed in oleic acid must not exceed 3.3%.

[ACID VALUE: 6.6 mg KOH per g. oil.]

3.1.3. Peroxide value (M.A.14) (a)

Expressed in milli-equivalents of active oxygen per kg., the peroxide value must not exceed 20.

3.1.4. Specific extinction in Ultra-Violet (M.A.15) (a)

The $E_{1\text{cm}}^{1\%}$ specific extinction (See "Methods of Analysis") must not exceed the following values:

Note (a) Acidity figures for different qualities of virgin olive oil are given in Annex A of the International Olive Oil Agreement (Appendix XVIII). Peroxide values and values for Specific Extinction in Ultra-Violet may be added to the Annex at a later date.

$$E_{1\text{cm}}^{1\%} 232 \text{ nm} \leq 3.5$$

$$E_{1\text{cm}}^{1\%} 270 \text{ nm} \leq 0.25$$

Oils having a specific extinction at 270 nm exceeding 0.25 may still be regarded as virgin oils if, after passage of the sample through activated alumina (See M.A.15, paragraph c), their specific extinction at 270 nm is less than 0.11.

3.1.5. Moisture and volatile matter (M.A.16)

0.2% max.

3.1.6. Impurities (M.A.17)

Impurities insoluble in light petroleum may not be present in excess of 0.1%.

3.2. Refined Olive Oil

3.2.1. Colour, Smell, Taste

Clear oil, limpid, without sediments, of clear yellow colour, without specific smell or taste, but free of smells or tastes indicating alteration or pollution of the oil.

The appearance and organoleptic characteristics of blends with virgin olive oil will be intermediate between those of these two types.

3.2.2. Acidity (M.A.13)

Free acidity, expressed in oleic acid per cent may not exceed 0.30%.

ACID VALUE: 0.6 mg KOH per g. oil.]

3.2.3. Peroxide value (M.A.14)

Expressed in milli-equivalents of active oxygen per kg. of oil, the peroxide value of refined oils or blends of these may not exceed 20.

3.2.4. Specific extinction in Ultra-Violet (M.A.15)

The $E_{1\text{cm}}^{1\%}$ specific extinction (See "Methods of Analysis") may not exceed the following value:

$$E_{1\text{cm}}^{1\%} 270 \text{ nm} \leq 1.10$$

The variation of this extinction in the region of 270 nm ΔE (See "Methods of Analysis") may not exceed:

$$\Delta E \leq 0.16$$

The specific extinction of blends with virgin and refined oils may not exceed the following values:

$$E_{1\text{cm}}^{1\%} 270 \text{ nm} \leq 0.90$$

$$\Delta E \leq 0.15$$

3.2.5. Moisture and volatile matter (M.A.16)

0.1% max.

3.2.6. Impurities (M.A.17)

Impurities insoluble in light petroleum may not be present in excess of 0.05%.

3.2.7. Soap test (M.A.18)

Tests to detect traces of soap must give negative results. This method is not applicable to blends of virgin and refined olive oils.

3.3. Refined Residue Olive Oils

3.3.1. Colour, Smell, Taste

Clear oil, limpid, without sediments, of a yellow to yellow-brown colour, without specific smell or taste, but free from smells or tastes indicating alteration or pollution of the oil.

The appearance and organoleptic characteristics of mixtures with virgin olive oils will be intermediate between those of these two types.

3.3.2. Acidity (M.A.13)

Free acidity, expressed in oleic acid per cent, must not exceed 0.30%.

ACID VALUE: 0.6 mg KOH per g. oil.

3.3.3. Peroxide value (M.A.14)

Expressed in milli-equivalents of active oxygen per kg of oil, the peroxide value of refined residue olive oils or mixtures of these with virgin olive oils may not exceed 20.

3.3.4. Specific extinction in Ultra-Violet (M.A.15)

The $E_{1\text{cm}}^{1\%}$ specific extinctions (See "Methods of Analysis") may not exceed the following values:

$$E_{1\text{cm}}^{1\%} 232 \text{ nm} \leq 6.00$$

$$E_{1\text{cm}}^{1\%} 270 \text{ nm} \leq 2.00$$

The variation of this extinction in the region of 270 nm may not exceed:

$$\Delta E \leq 0.20$$

The specific extinction of mixtures of virgin olive oil and refined residue olive oils may not exceed the following values:

$$E_{1\text{cm}}^{1\%} 232 \text{ nm} \leq 5.50$$

$$E_{1\text{cm}}^{1\%} 270 \text{ nm} \leq 1.70$$

$$\Delta E \leq 0.18$$

3.3.5. Moisture and volatile matter

Identical with 3.2.5.

3.3.6. Impurities

Identical with 3.2.6.

3.3.7. Soap test

Identical with 3.2.7.

3.3.8. Traces of solvent

The oil must not contain traces of the solvent used to extract it.

4. LABELLING

4.1. General. The provisions of this paragraph are subject to ratification by the Codex Committee on Food Labelling and to any general provisions laid down by that Committee and subsequently approved by the Commission.

4.2. All products designated as 'olive oil' must conform to the provisions for virgin olive oil or refined olive oil and must be either virgin olive oil or a blend of virgin and refined olive oil.

4.3. All products designated as 'virgin olive oil' must conform to the provisions for virgin olive oil.

4.4. All products designated as 'refined olive oil' must conform to the provisions for refined olive oil.

4.5. All products designated as 'refined residue olive oil' must conform to the provisions for refined residue olive oil.

4.6. Refined residue olive oil must not be described as 'olive oil' without qualification, but always as 'refined residue olive oil'.

4.7. Mixtures of refined residue olive and virgin oil must be described as 'refined residue oil and olive oil'.

5. METHODS OF ANALYSIS

5.1. The provisions of this paragraph are subject to ratification by the Codex Committee on Methods of Analysis and Sampling.

5.2. The Methods of Analysis used in respect of this standard shall be those set out in the Appendix.

EXTRACT FROM ANNEXE A TO THE INTERNATIONAL OLIVE OIL AGREEMENT

1. Virgin olive oils (Note: The expression "Pure virgin olive oil" may also be used): Olive oils produced by mechanical processes and free from any admixture of other types of oils or oils extracted in a different manner, classified as follows:
 - (a) Extra: Olive oil of absolutely perfect flavour, having a maximum acidity - i.e., oleic acid content - of 1 gramme per 100 grammes.
 - (b) Fine: Olive oil with the same characteristics as extra, except that its maximum acidity - i.e., oleic acid content - is 1.5 grammes per 100 grammes.
 - (c) Ordinary: (Note: the expression "semi-fine" may also be used as the equivalent of or instead of "ordinary"): Olive oil of good flavour having a maximum acidity - i.e., oleic acid content - of 3 grammes per 100 grammes, with a margin of tolerance of 10 per cent with respect to the indicated acidity.
 - (d) [Not applicable to the Standard.]
2. Refined olive oils (Note: The expression "pure refined olive oil" may also be used): Obtained by refining virgin olive oil.
3. Pure olive oils: Consisting of a blend of virgin olive oil and refined olive oil. Mixed oils may also be classified as types, the characteristics of which are determined by mutual agreement between buyers and sellers.
4. Residue olive oils: Oils obtained by treating olive residues with solvents.
5. Refined residue olive oils: Oils obtained by refining the oils mentioned in paragraph 4 and intended for food use.

(Note: Blends of refined residue olive oil and virgin olive oil habitually destined for domestic consumption in certain producing countries are called "refined residue oil and olive oil". These blends shall not, under any circumstances, be termed simply "olive oil".)
6. [Not applicable to the Standard.]

PROPOSED PROVISIONAL STANDARD FOR MARGARINE

(STEP 8 OF THE PROCEDURE)

1. DEFINITION AND APPLICATION OF STANDARD

1.1. Definition

Margarine is a food in the form of a plastic or fluid emulsion, mainly of the type water/oil, produced principally from edible fats and oils, which are not or are not mainly derived from milk.

1.2. Application of Standard

This standard will not apply to any product which contains less than 80% fat and is not labelled in any manner which implies, either directly or indirectly, that the product is margarine.

2. DEFINITIONS OF OTHER TERMS USED IN THE STANDARD

2.1. 'Edible fats and oils' means foodstuffs composed of glycerides of fatty acids of vegetable, animal or marine origin. Fats of animal origin must be produced from animals in good health at the time of slaughter and fit for human consumption as determined by a competent authority recognised in national legislation. They may contain small amounts of other lipids such as phosphatides, of unsaponifiable constituents and of free fatty acids naturally present in the fat or oil. Edible fats and oils that have been subjected to processes of modification may be used.

2.2. 'Pre-packed' means packed or made up in advance, ready for retail sale in a container.

3. COMPOSITION

3.1. Raw materials

(a) Edible fats and/or oils or mixtures of these.

(b) Water and/or milk and/or milk products.

3.2. Minimum fat content: 80% of the product by weight.

3.3. Additions

The following substances may be added to margarine:

(a) Vitamins: Vitamin A (esters included)

Vitamin D

Vitamin E (esters included)

Maximum and minimum levels for Vitamins A, D and E should be laid down by national legislation in accordance with the needs of each individual country.

- (b) Sodium chloride
- (c) Sugars (as defined by the Codex Committee on Sugars)
- (d) Suitable Edible Proteins.

4. ADDITIVES

The substances approved by the Codex Committee on Food Additives as suitable for use in margarine.

The following are recommended for consideration by the Codex Committee on Food Additives. (The levels, where specified, are on the weight of the margarine.):

- (a) Colours: Carotenes, other carotenoids, annatto, curcumin.
- (b) Flavours: Flavouring substances which occur naturally in foodstuffs and identical synthetic products.
- (c) Emulsifiers:
 - (i) Lecithin (phosphatides) and fractions of lecithin.
 - (ii) Mono- and di-glycerides of non-polymerized fatty acids of vegetable and animal origin.
 - (iii) Polyglycerol esters (partial) of non-polymerized or non-oxidized fatty acids (Max. 0.5%).
 - (iv) Partial and complete esters of mono- and di-glycerides and acetic, lactic, citric, tartaric, acetylated tartaric acids (Max. 1.0%).
 - (v) Propylene glycol esters of non-polymerized fatty acids (Max. 2.0%).
 - (vi) Sucrose-esters (including sucrose-glycerides) of non-polymerized fatty acids (Max. 1.0%).
 - (vii) Sorbitan monostearate, Sorbitan monopalmitate, or Sorbitan tristearate (Max. 1.0%).
- (d) Preservatives: Sorbic acid and its sodium, potassium and calcium salts and benzoic acid and its sodium and potassium salts up to, separately or mixed, expressed as acids, 1000 mg/kg.
- (e) Antioxidants: Propyl, octyl and dodecyl gallates, BHA, BHT, individually or in combination up to 100 mg/kg.

Natural and synthetic tocopherols

Ascorbyl palmitate, up to 200 mg/kg.
- (f) Other additives: Citric, lactic and tartaric acid and their salts; sodium bicarbonate, sodium carbonate, sodium hydroxyide as pH correcting agents.

5. CONTAMINANTS

The following maximum limits by weight shall apply:-

Iron	1.5 mg/kg
Copper	0.1 mg/kg
Lead	0.1 mg/kg
Arsenic	0.1 mg/kg

6. PACKAGING

Margarine when sold by retail shall be pre-packed and may be sold in a pack of any shape.

7. LABELLING

7.1. General. The provisions of this paragraph are subject to ratification by the Codex Committee on Food Labelling and to any general provisions on food labelling laid down by that Committee and subsequently approved by the Commission.

7.2. The product shall be designated 'margarine' and all products designated as 'margarine' shall conform to this Standard.

7.3. No reference shall be made to the presence of milk fat or butter in margarine other than a statement of the proportion of milk fat or butter present when this proportion is substantial (10% of total fat content or more).

7.4. No reference shall be made to the presence of any vitamin in margarine unless the name and quantity of the vitamin is stated on the label.

7.5. 'Reference' for the purposes of paragraphs 7.3. and 7.4. shall not be construed as including a simple mention of milk fat or butter or vitamins in a list of ingredients if such a list is required by national legislation or by general provisions on food labelling laid down by the Codex Committee on Food Labelling and subsequently approved by the Commission.

8. METHODS OF ANALYSIS AND SAMPLING