Codex Committee on Fats and Oils

Tenth Session, London, December 4-8, 1978

Delegates from 29 countries and observers from 9 international organizations attended the session. This committee's function is to develop standards for edible fats and oils which will ensure their identity and quality to the consumer. These standards also should facilitate international trade in vegetable oils and margarine.

The first agenda item was a discussion of FAO Food and Nutrition Paper No. 3, *Dietary Fats and Oils in Human Nutrition,* which was prepared by a group of experts almost exclusively from academia. Major recommendations are:

1. Levels of erucic acid in brassica oils should be reduced and/or these oils should be blended with other oils. This may be particularly important to children.
2. The same recommendation is made for partially hydrogenated marine oils.
3. Loss of essential fatty acids during hydrogenation and other processes should be minimized.
4. Specific nutrients, such as tocopherols and carotenes, if removed in nutritionally significant amounts during refining, should be replaced whenever feasible.
5. Prolonged exposure of polyunsaturated fats to high temperatures during refining should be discouraged.
6. Food products contributing significantly to total fat intake should be labeled to indicate content of total fat, and percentages of saturated, *cis*-monounsaturated, *trans* and all *cis*-polyunsaturated fatty acids in the fat. Cholesterol should be shown in mg/100 g of the product.

Many countries had prepared statements of serious objection to this report. Dr. R.W. Weik from FDA, who headed the U.S. delegation, also had drafted a statement. A summary of this draft is appended.

A. Hubbard, chairman of the session from the U.K., ruled that since national dietary patterns and special needs of particular population groups vary widely, introducing the question of dietary restrictions would cause serious problems in drafting worldwide standards. He ruled decisions on labeling should be deferred until advice could be obtained from the Codex committee on Food Labeling. Effectively, the chairman cut off debate on the FAO paper so there was no opportunity to present objections.

General Standard for Fats and Oils

The standard, as presently drafted, covers oils for direct human consumption in retail size packages. The size restriction would mean a large percentage of the oils moving in international trade as bulk shipments would not be subject to this standard. Our delegation requested the standard be broadened to include bulk shipments; the chairman agreed to discuss this proposal at the next meeting.

Delegates from several European countries attempted to restrict the number of additives (antioxidants, colors, flavors, antifoams, crystal inhibitors) included in this standard. Mr. Hubbard ruled that complete agreement could never be reached on a suitable list of additives; if a particular country disapproves of specific additives, it can accept the standard with appropriate deviations. The approved list of additives was retained.

Several countries wished to require a quantitative declaration of the percentages of each oil in blends to prevent misrepresentation. The U.S. argued this proposal had nutritional overtones, and a discussion should await the labeling committee's consideration of nutritional labeling. This issue was deferred until the next meeting (1980 in London).

Reduced Fat Margarine

There was no general agreement on a standard. Europeans favor a narrow range of fat content (39-41%) coinciding with that of a product sold widely in Europe. The U.S. favors a broad range of fat content. The FAO Secretariat agreed to prepare a paper proposing two or more standards, one with a narrow fat range and a second with a broad range, possibly including dairy fat as an ingredient. Products which are mixtures of butter and margarine are marketed in the U.K. The standard was put back to Step 6 in the Codex procedure, which should delay the process, providing U.S. manufacturers with more time to decide on the types of products they wish to market.

GLC Identification Based on Fatty Acid Ranges

This identification method was proposed by Dr. W.H. Tallent of NRRC, USDA. The U.S. proposed it be mandatory to ensure that a product is in compliance with the

description given to the product. This proposal was accepted with the understanding that governments may employ supplementary nonmandatory criteria, if considered necessary, to establish identity. This acceptance is considered a promising step toward the use of modern analytical methodology in the Codex program.

Processing Aids

The U.S. acted as chairman of a group to draw up a list of acceptable processing aids (See summary report attached). This list will be circulated to governments for comments, and typical residue levels for each material will be established. Obtaining the latter information may be quite difficult.

In addition, the Fats and Oils Committee discussed standards for olive oil, rapeseed oil, marine oil, coconut oil, palm kernel oil, palm oil and grapeseed oil. Analytical methods for sterols, tocopherols and fatty acids in position 2 of triglycerides also were considered.

Draft Statement of the U.S. Delegation to the Codex Alimentarius Committee on Fats and Oils Regarding the Joint FAO/WHO Expert Consultation, "Dietary Fats and Oils in Human Nutrition"

The U.S. delegation must take serious exception to this report. The following are our specific objections.

The report contains technical inaccuracies. Section 8 states that solvent-extracted oils may contain undesirable solvent residues and that the pyrolysis of organochlorine compounds during processing may lead to dioxins in shortenings and oils. Neither statement is correct. These inaccuracies are discussed at length in a critique of the report prepared by the Technical Committee of the Institute of Shortening and Edible Oils (ISEO), a copy of which is available to all participants of this meeting. It is apparent that the committee responsible for the report failed to include experts knowledgeable in the field of edible oil processing.

Many conclusions and recommendations are technically impractical or simply unnecessary. The recommendation calling for diets lower in total fat, sugar, alcohol, and cholesterol is unwarranted and impractical for most populations. The recommendation that carotenes be added to oils is unnecessary and inapropriate.

Many conclusions and recommendations would have significant economic effects on countries that would attempt to adopt them, but this point is not recognized in the report.

Many recommendations and conclusions related to dietary change are based on health considerations, but much of the support for these changes is based on controversial work or controversial theories. Some conclusions are inconsistent with present scientific knowledge as presented in the report itself. Of special importance is the omission of the medical judgment in the report of the National Heart and Lung Institute Task Force on Arteriosclerosis, which states that the scientific evidence does not yet support sweeping changes in the diet of the general population and to do so at this time would be premature.

Perhaps most important of all we feel that dietary changes for health-related reasons should be based upon the recommendations of medical and nutritional professionals, and we question whether such recommendations, even if made by the proper professional groups, have a place in the deliberations of a committee which has the responsibility for international standards for fats and oils.

We urge that the report not be adopted and that it be withdrawn from publication pending appropriate revision. If it is to be used (by the Fats and Oils Committee), the inaccuracies and inconsistencies must be corrected, and the scope of the responsibilities of the Fats and Oils Committee better defined by the Codex Alimentarius Commission.

Working Group Summary Report: Inclusion of Processing Aids in Codex Standards

Member Governments: Denmark, France, Netherlands, UK, US (Chairman)

The Working Group accepted the definition of "processing aids" developed by the Codex Committee on Food Additives and concluded that a category is necessary for "processing aids" separate from and in addition to "additives" or "contaminants."

It was further suggested that this additional category be generally described by the following principles of good manufacturing practices: (1) processing aids are technologically and economically justifiable components of the edible oil production process; (2) they are used as functional agents only during the production process and are intentionally and substantially removed following or during such process; (3) Unavoidable residual quantities of any processing aids in processed oils are in concentrations substantially less than the acceptable daily intake value and less than their minimum effective functional level; and (4) the labeling section shall exempt processing aids from being declared on the label in the list of ingredients.

The Working Group agreed that the list of processing aids was advisory and concluded that the list was by its nature "closed" but that new compounds could be added to the list when appropriate criteria are met.

Compounds may be added to the list when they are shown to be technologically and economically justifiable and they are demonstrated to be toxicologically acceptable and nonfunctional at their typical residual levels. The list of processing aids, where applicable, should be evaluated by the participating governments and information on residual levels and methods of analysis should be submitted to the Secretariat for tabulation and subsequent review by the Food Additives Committee.

Following is a list of common processing aids which may unintentionally remain in processed fat or oil, as previously discussed.

Processing Solvents: Propane, Butane, Hexane, Heptane, Isopropanol, Pentane, Methanol, Ethanol, Acetone, 2-Hitropropane, Water; *Absorbtion Agents:* Inert filtering agents, Adsorbent clays (bleaching, natural or activated earths), Adsorbent carbons, Ion exchange resins, Cellulose; *Crystal Modifiers:* Sodium lauryl sulphate, Oxystearing, Polyglycerol esters, Lecithin, Enzymes; *Catalysts:* Hydrogenation; Nickel, Copper, Chromium, Manganese, Molybdenum, Platinum, Palladium; *Inter- or Trans-Esterification:* Sodium metal, Sodium amide, Sodium methylate (methoxide), Sodium Ethylate (ethoxide), Potassium ethylate (ethoxide), Potassium metal; *Hydrolysis:* Sodium hydroxide; *Gases:* Nitrogen, Hydrogen, Carbon dioxide; *Acids:* Citric, Tartaric, Phosphoric, Hydrochloric, Sulphuric, Oxalic, Acetic; *Bases:* Hydroxides of Sodium, Potassium, Ammonium, Calcium and Magnesium, as well as Sodium Carbonate; *Salts:* Citrates, Tartrates, Carbonates, Chlorides, Phosphates, Sulphates, as their Sodium, Potassium, Calcium and magnesium salts, Sodium silicates, Calcium carbonate and Sodium bicarbonate. ●