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A PROGRESS REPORT ON THE DEVELOPMENT OF INTERNATIONAL FOOD STANDARDS

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Among the first problems facing any country seeking to engage in international trade is that of agreement with the buyer on the nature, characteristics, quality, quantity, and price of the commodity to be traded. Once agreement is reached on those elements, the negotiation of other details can proceed in an orderly way and by accepted rules of commerce.

Many countries are actively engaged in the export and import of foods whether they be semiprocessed, or processed. However, that trade is hampered by lack of food standards acceptable to buyer and seller. A number of international organizations had been working on standards for trade between countries. For example, the need for agreement on food standards was first recognized when the Codex Alimentarius Europaeus was established to develop standards for use among European nations. The Organization for Economic Cooperation and Development (OECD), of which the United States is a member, also had a program for food standards development.

Many people felt that the work was being unnecessarily duplicated, too many organizations were engaged in it, and its cost was becoming prohibitive. This situation sparked the adoption of a resolution at the FAO Conference in 1961, endorsing the establishment of a Codex Alimentarius (Food Standards) Commission to operate under joint Food and Agriculture Organization/World Health Organization (FAO/WHO) auspices. The excellent progress made on food additives, milk hygiene, and the Code of Principles for milk and milk products under this same joint auspices was the basis for a further program. In October 1962, there was convened, at Geneva, the First Joint FAO/WHO Conference on Food Standards to review the proposed program. The conference was mainly concerned with the organization of the FAO/WHO Codex Alimentarius Commission. The attendees set the principles, guidelines, purpose, and scope of the Commission.



Fig. 1 - To assure a top-quality processed product for the consumer, U. S. D. I. (U. S. Department of the Interior) fishery inspector checks quality of raw heads-off shrimp in Texas shrimp breeding plant.

The first working conference of that Commission, held in Rome June 25-July 3, 1963, resulted in assignment of chairmanships of the various commodity and practices committees to

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member governments or international organizations. For example, the United States was assigned chairmanships for the committees on food hygiene and processed fruits and vegetables; FAO was given the chairmanship for the committee on fish and fishery products.

The Joint FAO/WHO Program on Food Standards (Codex Alimentarius) has as its purpose: simplifying and integrating food standards work now carried on by many international organizations; providing an effective mechanism for obtaining Government acceptance of the standards; and their publication in the Codex Alimentarius. Participation in the program is open to all interested member nations of FAO and WHO. Primary task of the Commission is the determination of priorities and the allocation of preparatory work on each standard to the best qualified outside technical body. The group so selected would submit a draft to the Commission for finalization at Government level as was so successfully done with the Code of Principles for Milk and Milk Products. Work already under way on food standards, such as that



Fig. 2 - U. S. D. I. fishery inspectors at packing line of Texas shrimp breeding plant.

of FAO, would gradually be integrated with the new Joint Program. Basis for the Joint Program is (1) the rapidly growing importance internationally accepted food standards as a means of protecting consumers and producers in all countries, whatever their stage of development, and of effectively reducing trade barriers; and (2) the need to simplify and integrate international food standards work to avoid duplication and conflicting standards and to effect economies in effort and expense.

Types of foods to be included are principal foods entering international trade, whether processed, semiprocessed, or raw, for direct sale to the consumer or for manufacturing purposes. Food additives, intentional or unintentional, are included because of their increasing importance (pesticides, etc.). Primary responsibility for the work on food standards rests with FAO, while WHO is concerned with health aspects of the program. Food hygiene is included because this element is essential to insure a food standard that is both effective and acceptable, based on international food standards work already under way. Food hygiene rules will also be valuable for guidance of developing countries where full knowledge in this area cannot be taken for granted.

Worldwide standards were agreed upon as the desirable type, because some foods are international in trade. There are not excluded standards for foods that are regional or international but the Codex, through incorporation of both types, will be a reference book of international food standards and a means for harmonizing the standards themselves.

The nature and type of standards to be included in the Codex is important. "Nature" means the category into which they fall. These are: international "trading" standards; international minimum standards, standards somewhat less rigorous, but a target at which national standards should aim. "Type" is aspect to be covered; composition, designation, labeling, analysis, hygiene, etc.

The Commission recognizes the difficulty of attaining its objectives, even for closely linked countries, but the aim must be attained by any group of countries seeking free international change of foodstuffs in a common market. The trading standards can be only recommendations for use by any country at its option; or as in EEC, by international legislation they may become law for that group. Less difficult is the recommendation of minimum standards which if a government accepts them, merely undertakes to insure that corresponding national standards shall not be less rigorous. This does not preclude national standards being more rigorous.

A good example of minimum standards appeared in Code of Principles for Milk and Milk Products, now accepted by about 50 countries. Standards for dried milk, elaborated therefrom, are already having international impact on trade in that commodity.

Those food standards are aimed at insuring the marketing of a sound, wholesome product correctly labeled and presented. Those objectives are most important in international standards. They are not intended to force a certain quality (or grade) of product upon the consumer or otherwise to affect consumer preference.

All standards developed by the Commission would be submitted to governments with a view to their acceptance. This is an essential element since there are detailed and diverse governmental regulations to which every imported food must comply. Harmonization with national standards, therefore, will enhance the weight of the Codex standard as a model.

For fish and fishery products, the Commission delegated to FAO the initial work on both Codes of Principles and Standards. FAO called a meeting of a Committee of Experts which met in Rome, February 18-20, 1964.

The Committee consisted of experts from the following 12 countries actively associated with international trade in fish and fishery products: Canada, Denmark, Federal Republic of Germany, Iceland, Italy, Japan, Netherlands, Norway, Poland, Portugal, United Kingdom, and United States of America, together with observers from France, Poland, the Organization for Economic Cooperation and Development (OECD), and the European Economic Community (EEC). The Committee elected as its Chairman H. V. Dempsey (Canada) and as its Rapporteur Butler (U. S. A.)

The Committee's substantive agenda was as follows:

- (1) Recommendation of priorities among fish and fishery products to be standardized.
- (2) Preparation of a code of principles for fish and fishery products.
- (3) Preparation of a draft model standard.

In handling this agenda, the Committee had before it a considerable documentation prepared by the FAO Secretariat, containing information on regulations concerning fish and fishery products in the principal countries, on the work of other international agencies (in particular OECD) on a draft skeleton code of principles and, finally, material on international trade in fish and fishery products to facilitate the selection of priorities among them for standardization.

The Committee agreed that, in the selection of products for international standardization, priority should be given to those products:

- a. Which are important in international trade.
- b. Which are of interest to a number of countries.
- c. Where lack of standards have created trade difficulties.
- d. For which raw material does not differ too much.
- e. For which standardization would not be too difficult technically.

The list of products selected as suitable for international standardization at an early date

(a) Canned Products:

- Herring and sardine in tomato sauce
- Herring and sardine in oils
- Tuna, bonito and mackerel in brine or oils
- Pacific salmon
- Crab meat and shrimp

(b) Frozen Products:

Tuna as raw material for further processing
 Herring " " " " " "
 Fillets of Atlantic cod, haddock, and ocean perch (Sebastes species)
 Pacific salmon
 Crustaceans

(c) Cured Products:

Salted herring
 Salted cod

Instead of the Code of Principles which it was requested to draw up, the Committee felt that it would be more descriptive to call it a Code of Practice, since what was wanted were broad guidelines for practical application. On the basis of a draft submitted by the Secretariat, the Committee considered in detail the various chapters which should be included and, as a result, drew up the skeleton Code of Practice which is outlined here:

I. HANDLING PRACTICES FOR RAW MATERIAL

1. Requirements for raw fish and fishery products

(a) Handling on board fishing vessels

- (i) condition of fish at the time of catching
- (ii) immediate handling of fish, including gutting and bleeding
- (iii) washing
- (iv) stowing and icing
- (v) equipment and facilities available on board (boxes, freezing equipment, cold-storage rooms, etc.)

(b) Handling ashore

- (i) proper methods of unloading the catch
- (ii) re-icing prior to sale as fresh fish
- (iii) re-icing prior to processing
- (iv) re-icing prior to auction
- (v) handling of products frozen at sea

2. Requirements for plants and equipment

(a) sanitation

(b) disinfection

II. PROCESSING PRACTICES

1. Freezing and storage of frozen products
2. Canning
3. Curing (salting, smoking, marinating)

III. PRACTICES OF QUALITY CONTROL

IV. STANDARDS

1. Standards of composition

- (a) definition
- (b) designation
- (c) quality requirements
- (d) permitted additions
- (e) marking and labeling

2. Methods of sampling, analysis and examination needed for control of each standard

In general, the Committee felt that the Fisheries Division of FAO should be responsible for elaborating the skeleton Code of Practice. However, in order to achieve that task, the Committee felt that specified countries or organizations should be asked to help in the preparation of the Code. The exceptions are as follows:

a. With respect to antimicrobials and other ice additives, the Committee requested the Director-General to request the Codex Alimentarius Expert Committee on Food Additives, under the chairmanship of the Netherlands Government, to look into the whole question of the use of antibiotics in ice for the preservation of fish with a view to determining whether the technological considerations are sufficient to justify the establishment of a tolerance for their use, subject to appropriate toxicological examination by the Standing Joint FAO/WHO Expert Committee on Food Additives.

b. With respect to requirements for plants and equipment, the Committee recommended that the questions of sanitation and disinfection be considered by the Codex Alimentarius Expert Committee on Food Hygiene, under the chairmanship of the United States. The Committee therefore, requested the Director-General to ask the Expert Committee on Food Hygiene to include in its program problems of sanitation and disinfection for fish processing plants.

c. With respect to freezing and storage of frozen products, the Committee felt that the International Institute of Refrigeration (IIR) should be requested to develop that chapter of the Code in collaboration with OECD.

d. With respect to processing practices for canning, the Committee noted the program in hand with OECD on this subject and felt that OECD should be asked to develop that chapter of the Code.

e. With respect to curing, the Committee felt that this subject should be broken down into the following subdivisions and the development work allocated as indicated:



Fig. 3 - U. S. D. I. fishery inspector in Texas shrimp breeding plant checks package of breaded shrimp at weighing station of the production line.

<u>Process</u>	<u>Country</u>
Salting	Iceland
Smoking	Netherlands
Marinating	Germany

Regarding fermented products, it was agreed that this subject should be referred to the Indo-Pacific Fisheries Council for consideration and the development of a Code if they felt that sufficient material was available for a chapter.

The Committee considered in detail a skeleton model which had been drawn up by the Secretariat for the elaboration of international standards for fish and fishery products. The model standard agreed upon is as follows:

I. STANDARD OF COMPOSITION

(The example taken is that of a canned product).

Definition

The fish shall be defined by the Latin name of the genus and species to which it belongs (Binominal nomenclature), e. g. "canned tuna is the processed flesh of fish of the species listed. . . ."

Designation

Name of product e. g., grated tuna in oil.

Quality requirements

Minimum requirements for content

- (a) requirements concerning fish, e. g., appearance, freshness, color, etc.
- (b) form of pack, e. g., solid pack, chunks, flakes, grated

Grades

e. g. Fancy Grade or Grade A
 Standard Grade Grade B
 Commercial Grade

Permitted additions

- (a) substances added for other purposes (eventually food additives which will be included in the Codex Permitted List now in preparation).
- (b) packing media, e. g., type of oil used, brine, etc.
- (c) other ingredients.

Marking and labeling

The outside of packages shall bear the following information clearly described:

- (a) designation - e. g. chunks
- (b) ingredients

(c) weight or count

(d) origin of finished product - e. g. country, manufacturer, packer, etc.

II. METHODS OF SAMPLING, ANALYSIS AND EXAMINATION NEEDED FOR CONTROL OF THIS STANDARD

(a) examination of cans - e. g. seaming

(b) bacteriological examination - e. g. routine incubation

(c) chemical examination - e. g. salt, fat, acidity

(d) organoleptic examination

(e) sampling

The Committee proposed that the following steps should be followed in drafting standards in this model:

a. A first draft would be prepared by the "author" country or organization proposed in the following table against each standard (if the FAO Secretariat should be unable to make the arrangements suggested with those countries or organizations, the Committee urged it to make such other appropriate arrangements as might be necessary to expedite this work) and submit it to the FAO Fisheries Division which would then distribute it for comment to other interested countries.

b. The comments of those countries would then be sent to the FAO Secretariat for consideration and transmission to the "author" country.

c. The "author" country or organization would then prepare a revised draft in the light of the comments and send it to the FAO Secretariat.

d. The second draft would then be distributed by the Secretariat to interested countries for further comment.

e. This procedure would be continued until substantial agreement had been reached upon a draft.

f. At that stage, the Committee felt that the draft could best be considered by a Codex Alimentarius Expert Committee which the Codex Alimentarius Commission might wish to set up.

g. The draft approved by that Committee of Experts would then be sent to the Codex Alimentarius Commission and thereafter handled by the normal agreed procedures of that Commission.

The countries or organizations which the Committee felt should be invited to undertake preparation of the preliminary draft of the standards (i. e. "author" countries or organizations) are as follows:

CANNED PRODUCTS

"AUTHOR" COUNTRY

Herring in tomato sauce

OECD

Sardine in tomato sauce

OECD

Herring in oil

OECD

Sardine in oil

OECD

Tuna in brine or oil

Japan

Bonito in brine or oil

Peru

CANNED PRODUCTS (Contd.)

Mackerel in brine or oil
 Pacific salmon
 Shrimp: (i) Paeneus
 (ii) Crangon

"AUTHOR" COUNTRY (Contd.)

Portugal
 Canada
 U. S. A.
 Federal Republic
 of Germany

FROZEN PRODUCTS

Frozen tuna as raw material
 for further processing
 Frozen herring as raw material
 for further processing
 Frozen fillets of Atlantic cod,
 haddock, and ocean perch (Sebastes)
 Frozen Pacific salmon
 Frozen crustaceans

Japan
 Norway
 United Kingdom
 Canada
 France

CURED PRODUCTS

Salted herring
 Salted cod, etc.

Netherlands
 Canada

The Committee requested the Secretariat, when inviting countries or organizations to draft those standards to seek as far as possible "trading" standards. "Trading" standards are for purposes of aiding in orderly trade in the commodity as contrasted to consumer-oriented standards. They aim at establishing a norm for the commodity, but do not preclude negotiation for sale of a below-the-norm commodity at a lesser price.



Fig. 4 - U. S. D. I. fishery inspector in a Texas shrimp breading plant checks the grade of breaded shrimp.

The United States Government has supported the Codex Alimentarius Commission from its inception and has taken an active role. In fact, Deputy Commissioner John Harvey of the Food and Drug Administration chaired the Commission's meeting at Geneva in February 1963, and at Rome in June of 1963. Since the United States has a rather comprehensive program of national food standards it is in a position to provide a significant impact for the development of international "trading" standards. Those standards will help the United States in its current program of trade expansion abroad and they will also provide guidelines for production by developing countries of products acceptable in world trade channels.

The fishing industry should be interested in the program in that it will have a bearing on our export and import business in the future. The procedures described provide ample opportunity for comment on the fishery products standards as they are developed. The acceptance of any standard published by the Codex Alimentarius Commission for use is entirely voluntary and each country can elect to use it or not. However, with these new international tools there is reason to believe the goals set down by the Commission can be reached:

1. Promotion of trade in food.
2. Stimulation of food standards work in developing countries.

3. Protection of the consumer's health.
4. Promotion of fair practices in food trade.

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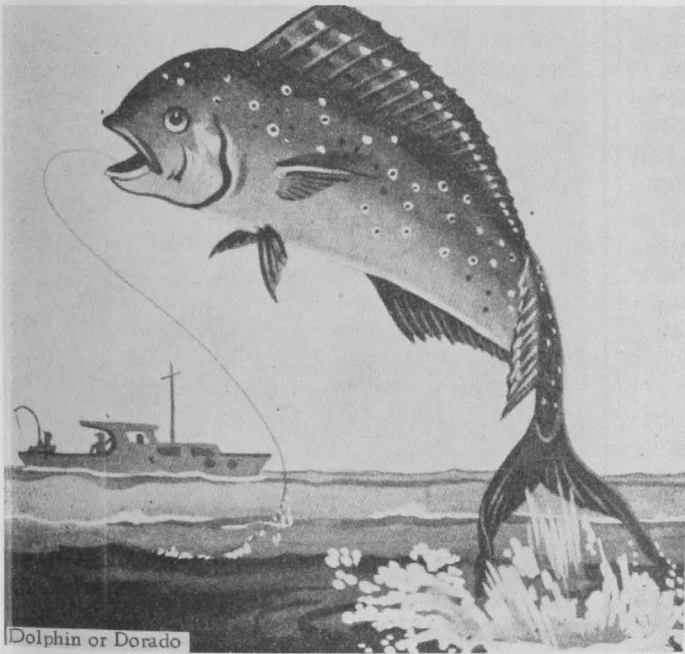
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THE TRUE DOLPHIN KNOWN FOR SPEED AND FIGHTING SPIRIT

Two marine species in the waters of the Gulf of Mexico have the same name--dolphin. One is the bottle-nosed mammal sometimes called porpoise. The other is the true dolphin, a beautiful and spectacular game fish.



Dolphin or Dorado

The dolphin, or dorado, is resplendently colored with hues of lilac, sea greens and emerald pastels mingled with purplish golds. Leaping high into the air when snared, this fish displays those colors with each surge. These repeated leaps of 10 to 20 feet are remarkable demonstrations of the dolphin's fighting spirit.

Dolphins are most often caught by trolling slowly in rather deep waters off reefs or in bays. The young occur in shallow waters, but the mature fish usually prefer the open seas. These fish are noted for their very great speed and their streamlined body design. The average size dolphin is about 2 or 3 feet long, and they are said to prey on flyingfish.

Dolphins are also famed for unusual and rapid change of color at death. Their colors may change from yellow to green to blue to violet in a matter of minutes. (Alabama Conservation, December-January 1964.)