FDA may revise labeling rules

Saying it is time to consider revising U.S. food labeling requirements, the Food and Drug Administration (FDA) is seeking comments on what changes, if any, are needed. Topics considered for change include labeling of fats and oils, a frequent topic during recent years. In a six-page notice in the Aug. 8, 1989, issue of the *Federal Register*, FDA posed specific questions to be considered in five categories and set Dec. 6, 1989, as the deadline for comments.

The five categories include nutrition labeling requirements, nutrition labeling format on food packages, ingredient labeling requirements, food descriptions and health messages.

Questions posed also centered on how to handle fat labeling, with FDA asking whether to continue "and/or" labeling for fats and oils. FDA said options include revoking the "and/or" exemption, modifying it to apply only when total fat and oil content constitutes a minor portion of the food product, or permitting its use only when fats and oils are of similar nutritional value (i.e., for similar polyunsaturated vegetable oils).

FDA asked whether a detailed quantitative listing of saturated, monounsaturated or polyunsaturated fatty acid content should be required, and whether other components such as omega-3 and omega-6 fatty acids, *trans* fatty acids and cholesterol should be listed on labels. FDA suggested that one option might be to focus on whether the fat is saturated or unsaturated, rather than listing the specific oils used. FDA noted that in 1986, it had proposed a rule regarding cholesterol and fatty acid labeling; the agency said that rule is now in the final stages before adoption.

Noting that basic food labeling was developed almost 20 years ago, FDA said revisions may now be needed. FDA cited "The Surgeon General's Report on Nutrition and Health" and the National Academy of Sciences' report, "Diet and Health: Implications for Reducing Chronic Disease Risk," as providing authoritative current views on the evidence linking dietary patterns and health. FDA added that surveys indicate consumers, wishing to play a more active role in self-care, "specifically seek more useful and easily understood information about nutritional characteristics of the foods they eat." Meanwhile, food manufacturers are becoming more interested in using labels to convey relationships between diet and certain diseases, and Congress and state legislatures are considering such questions as mandatory nutrition labeling, cholesterol content and label identification of vegetable oils.

FDA will hold public hearings in different areas of the country as part of its food labeling examination. The dates and locations will be announced in the *Federal Register*. Written comments must be submitted to the Dockets Management Branch (HFA-305), Food and Drug Administration, Room 4-62, 5600 Fishers Lane, Rockville, MD 20857, by Dec. 6.

Meanwhile, the Institute of Medicine of the National Academy of Sciences has been commissioned to review food labeling policy as administered by FDA and the Department of Agriculture and to suggest options for improving federal food labeling policy. Details: *Federal Register*, Aug. 8, 1989, pp. 32610-32615.

'Tropical fats' feud to fade away?

The American Soybean Association's campaign to promote its new "SoyOil" symbol identifying soy oil foods in the United States may mean less resources put into the "tropical fats" campaign that aroused the ire of palm and coconut-oil producing countries.

The Wall Street Journal reported that the Malaysian Palm Oil Growers' Council told a Kuala Lumpur news conference that the ASA and Malaysia's palm oil interests had declared a "truce." ASA representatives said the word "truce" was the Malaysians' choice, but that ASA had decided to focus its attention on promoting its new campaign to build U.S. consumer awareness of soy oil and products containing soy oil.

Even if ASA ends its efforts, there are other groups in the U.S. who are urging U.S. residents to cut the amount of saturated fat in their diets by avoiding palm and coconut oils.

Fish oil output rises in 1st quarter

Fish oil production during the first quarter of 1989 was up 13% over the same period in 1988 in the main exporting countries, according to a report from the International Association of Fish Meal Manufacturers (IAFMM).

IAFMM said fish oil production in Peru during the first quarter was 67,000 metric tons (MT), compared with 33,000 MT during the same period in 1988. In Chile, production totaled 20,000 MT, compared with 8,000 MT previously. However, in Norway, production totaled 10,000 MT compared with 13,000 MT in the first quarter of 1988, and Iceland showed a decline to 29,000 MT, from 41,000 MT.

IAFMM noted that stocks were plentiful, with producers reluctant to sell because of low prices for crude fish oil. Hardened fish oil was cheaper than crude soybean oil on the London spot market in June; as a result, IAFMM predicted compound fat producers would substitute hardened fish oil for refined vegetable oils.

NRA offices move to Washington

The National Renderers Association has moved its organizational offices to Washington, D.C., from suburban Chicago. Address for the organization will be 1101 Connecticut Ave. NW, Washington, D.C., 20036; telephone number will be 202-857-100.

NRA board chairman Wayne Whitaker said the move "reflects the importance in having a close working relationship with regulatory agencies" and will aid NRA's goal of expanding domestic and international marketing activities. The NRA has more than 50 member firms involved in producing animal fats and proteins. NRA chief staff executive is Thomas Wiehe; Russell John is domestic marketing manager, and Kent Brady is international marketing manager. NRA has offices overseas in London, Hong Kong and Seoul.

Liposome firm to do human tests

The Liposome Co. has received FDA approval to begin safety tests in humans on delivery of antibiotic material via liposomes, according to a report in *The Wall Street Journal.*

The drug to be tested fights infections in immune cells. It will be carried in liposomes, which initial testing suggests are engulfed by the body's immune cells, freeing the drug inside the immune cells. Conventional antibiotics usually kill bacteria outside cell walls, but do not penetrate cell walls. The test drug may combat two specific infections that can occur in AIDS patients.

EPA, fish oil powders announced

Q.P. Corporation of Japan has announced development of technology to produce eicosapentaenoic acid (EPA) in a powdered state. In Canada, E.P.A. Ltd., a subsidiary of Capsule Technology Group Inc. of Windsor, Ontario, Canada, has developed technology to produce fish oil concentrate in powder form.

In Japan, Q.P. said it has succeeded in coating EPA with egg white peptide and also mixing it into bread dough. Uses in other products—margarine, ice cream, pudding, chocolate and fish paste—are expected to be announced.

In Canada, the powdered fish oil concentrate was described by E.P.A.'s plant manager Joe Mordarski as having a considerably neutral smell and being stable at normal room temperatures. He said E.P.A. envisions that the concentrated fish oil powder products can be used as nutrient enhancers in the food industry as well as for pharmaceutical applications.

The company also is working in conjunction with the Nova Scotia Agricultural College on a program to incorporate marine concentrate in poultry feed.

Kraft signs pact to buy Simplesse

NutraSweet Co. will supply Kraft General Foods (KGF) with its Simplesse fat substitute once the U.S. Food and Drug Administration (FDA) clears the usage of Simplesse in foods.

Under an agreement announced in August, NutraSweet, a unit of Monsanto Co., said it would supply the fat substitute made from egg and milk proteins to Kraft for use in mayonnaise-type products. KGF confirmed this would include use in its Miracle Whip salad dressing.

FDA has yet to indicate how soon it will act on a generally recognized as safe (GRAS) petition for Simplesse, filed by NutraSweet in 1988.

The supply agreement came on the heels of KGF filing a GRAS petition with FDA on its own protein-

based ingredient designed to reduce the amount of fat in food. KGF's fat substitute, which has yet to be given a name, also is made from milk and egg-white proteins. FDA has said it would accept comments until Oct. 13 on Kraft's petition. JoAnn Ziyad of FDA's Center for Food Safety and applied Nutrition (HFF-334), 200 C St. SW, Washington, is the FDA official processing the petition.

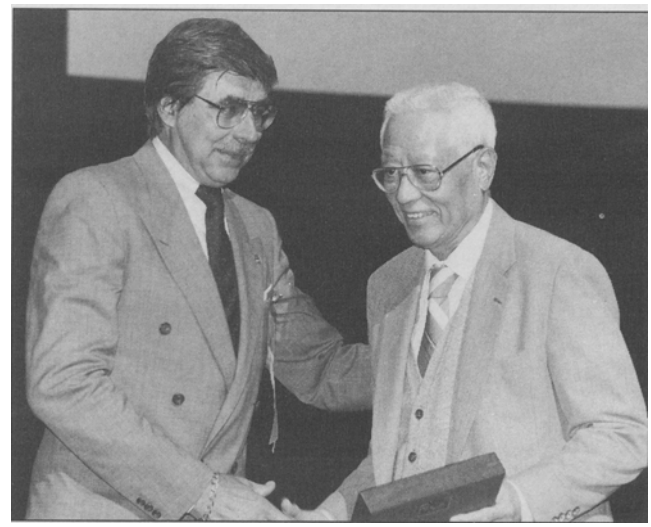
Iowa State's pilot plant

A $4.86-million cereal and oilseed processing pilot plant is under construction at Iowa State University, in Ames, Iowa. The 13,800-square-foot facility will be part of the Center for Crop Utilization Research at Iowa State. Groundbreaking was this past September; the building should be completed by the end of 1990.

Iowa State does extensive work in developing new soybean varieties and the new pilot plant will permit research on such new varieties. "We intend to encourage contract work with industry," Earl Hammond, head of the Iowa State Food Technology Department, said. A solvent extraction section will be able to "readily process 100-pound quantities to evaluate the properties of the oil," Hammond said. The pilot plant will include extrusion equipment.

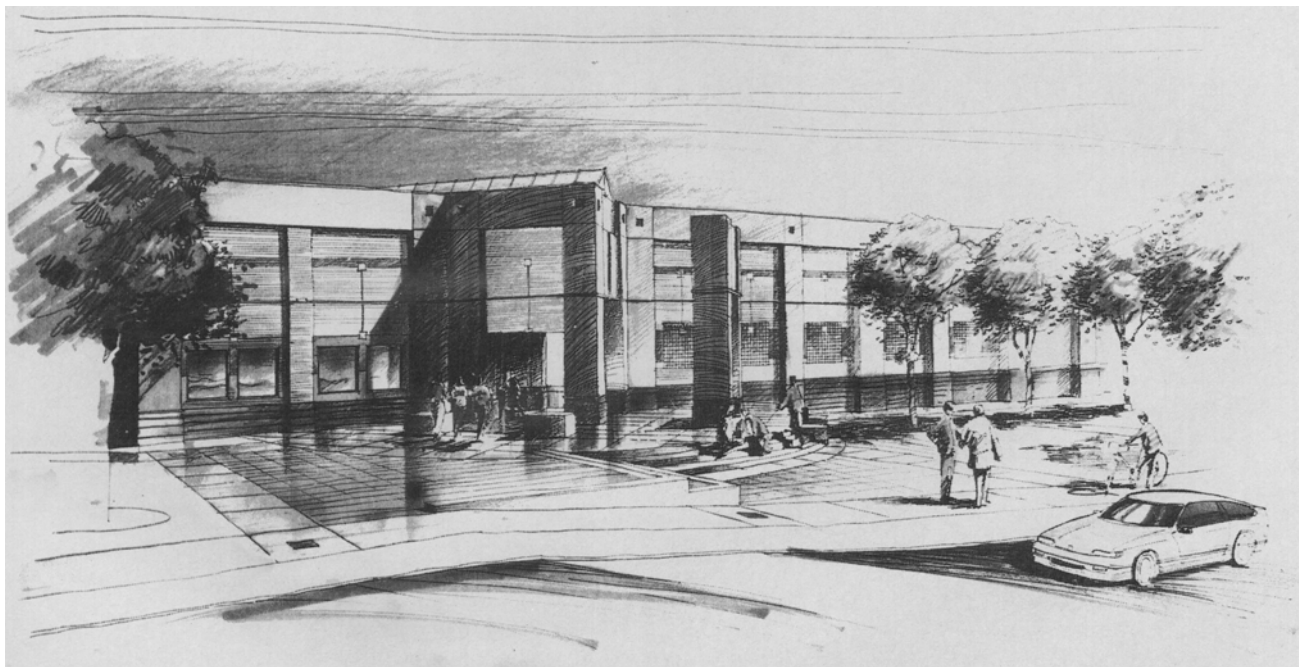
Other work may include developing biodegradable plastics. "Cornstarch now is being used for this purpose. However, there is potential for looking at other materials, such as incorporating fats to make plastics more biodegradable," Hammond said.

In previous work at Iowa State to improve the food technology facilities, about 7,000 square feet in the dairy industry building was remodeled at a cost of about $1.7 million, Hammond said.



Chang Receives IFT Award

Stephen S. Chang, right, receives congratulations from Institute of Food Technologists' President Theodore P. Labuza upon Chang's acceptance of the 1989 IFT International Award. Chang, a former AOCS president, was cited for promoting the international exchange of ideas in food technology. Chang has aided food technologists in China and Taiwan during his professional career.



Artist's rendering of processing pilot plant research facility being constructed at Iowa State University

Two firms sign lecithin agreement

Central Soya Co. Inc. has signed a long-term agreement with the Owensboro Grain Co. to become exclusive purchaser of lecithin produced at the Owensboro, Kentucky, facility.

The Owensboro firm has agreed to invest in state-of-the-art processing equipment to produce high-clarity lecithin.The arrangement also will increase Central Soya's supply of raw product for further processing into refined fluid and de-oiled lecithin products.

Five elected to Lipidforum board

Five new members have been elected to the board for Lipidforum, the Scandinavian fats and oils research society.

The new members are: V.K.S. Shukla, Denmark; Tapio Palmu, Finland; G.G. Haraldsson, Iceland; E.N. Christiansen, Norway, and J.O. Lidefelt, Sweden. The five become part of the 11-member board, which contains one scientific and one industry representative from each of the Scandinavian countries, plus the secretary-general.

Reinhard Marcuse, secretary general for Lipidforum since 1969, will be completing his service in that office at the end of this year. George Lambersen of Norway will succeed Marcuse. Gunhild Holmer of Denmark is chairperson for the Lipidforum board.

ASA aids soyfood groups in Mexico

The American Soybean Association's Mexico City office has been acting as a catalyst in encouraging the formation of two soyfood-related associations based in Mexico.

The first group taking shape is an association for Mexican soyfood producers. The aims are to provide a unified group to meet with Mexican health authorities on soyfood-related issues and to exchange ideas and information. The second group is an international soyfoods extrusion association; it is being formed by Latin American-based companies, with plans to expand participation to companies in other parts of the world such as Africa and Asia.

"There are no formal agreements yet for the two associations but there has been much interest shown," according to Gil Harrison, ASA division manager for Latin America.

Susana Dehesa de Manjarrez, director of ASA's Technical Assistance Center in Mexico City, has been the primary ASA contact in the organizational talks. Taking part have been representatives of Industrial de Alimentos, Nutricasa, Productos Alimentarios Delicias, Nutrimex, Alimentos Proteinicos S.A., Arancia Purina Proteinas, Archer Daniels Midland, Laboratorios Abbot, Mead Johnson and Nestlé.

For further information about the groups, contact Susana Dehesa de Manjarrez, Director, ASA's Technical Assistance Center, Rio Sena #26, Mexico City 0650, Mexico, telephone 905-566-9490.

Soymark Logo

The American Soybean Association has launched a campaign to encourage use of its new trademarked SoyOil symbol (left) on U.S. food containing soybean oil. The color version has a background of green with the design portion in yellow. ASA reports soybean oil is used in 83% of U.S. margarine, 62% of solid shortenings, 80% of cooking oils and 90% of prepared dressings.

New uses found for NMR

New uses for Nuclear Magnetic Resonance Spectroscopy (NMR Spectroscopy) were discussed during the 1989 AOCS annual meeting in Cincinnati, Ohio. Dale Gardner of Procter & Gamble Co. prepared this report on the NMR papers presented during that meeting. Gardner and S. Caravajal, also of Procter & Gamble, served as session chairpersons for papers on the topic: Magnetic Resonance Spectroscopy—High Resolution and Pulsed Applications.

This session concentrated on presenting applications of modern NMR technology including both high resolution and pulsed techniques. Presentations focused on using equipment and methods currently available to solve unique problems related to the fats and oils as well as the surfactants and detergent industries.

The session opened with a paper presented by Foud Ezra, Procter & Gamble Co., demonstrating the use of high resolution carbon and proton NMR to identify isomers of sucrose monolinoleate. This presentation was an excellent example of a concerted effort between separation technology and molecular identification. Isomer separation was accomplished by reversed-phase HPLC. Analysis of HPLC fractions using modern high resolution techniques, including one- and two-dimensional methods, effectively identified each isomer. The analytical technology demonstrated potentially has wide applications to many areas in the fats and oils industry.

Obtaining NMR spectra of liquid components in nonhomogeneous fields was the topic of the next presentation, by Vinko Ruta of Iowa State. This work presented a unique application of technology actually developed for solid state NMR purposes. By spinning oilseeds at high speeds and at a specific angle, the "magic" angle, carbon and proton NMR spectra of the liquid oil in the seeds could be obtained. The quality of the spectra is impressive and approaches that obtained on pure liquid samples. This work could have important applications in breeding programs by providing a nondestructive *in vivo* analysis of the intact oilseeds.

In the area of low-field NMR, often referred to as pulsed NMR, solid fat content measurements are receiving a great deal of attention. In fact, this technology is the major subject of a NMR subcommittee project as it attempts to standardize this important measurement. In addition, new applications are being developed as was demonstrated by the paper presented by Tim Guffy of Procter & Gamble. The work has extended the measurement to application for P&G's zero-calorie olestra. It was shown that the solids content was not affected by either the AOCS or IUPAC tempering procedures and this could be important for improving the NMR measurement for both triglycerides and fat substitutes.

Applications to surfactants and detergents were not forgotten. Using nitrogen-14 NMR to identify quaternary ammonium cationic surfactants was the subject of the paper presented by Mike Rothgeb. By taking advantage of the molecular symmetry of these quaternary compounds, Rothgeb and coworkers developed methods for selective analysis of the quats in complex mixtures containing other nonquaternary nitrogen compounds with no interferences. This was an excellent example of how high resolution multinuclear NMR can be used for both quantitative and qualitative analysis of complex mixtures.

These four papers typify the types of applications presented. Ten talks were presented in the session, making for an interesting and enlightening afternoon. Additional applications included the use of NMR to monitor reaction chemistry, on-line process measurements, and solid state deuterium NMR.

Japanese oil mill employment drops

Total employment at Japanese oil mills during 1988 was 4,072, a drop of 148 persons, according to a report from the Japan Oilseed Processors' Association.

Total annual sales rose to 500 billion yen from 457 billion yen the previous year, but total net sale continued below the 1984 level, primarily because of currency appreciation, the report said.

News briefs

Donald Morton, technical director for **Premier Edible Oils Corp.** in Portland, Oregon, has been appointed chairman of the **National Institute of Oilseed Products'** Chemists' Sub-committee. Also, **Frank Cashio Jr.,** manager of **Thionville Laboratories Inc.** in New Orleans, Louisiana, has been appointed chairman of the NIOP Samplers and Weighers Sub-Committee, and **Edmond J. Dugas,** acting director of refinery quality control at **Beatrice/Hunt-Wesson Inc.** in Fullerton, California, has been appointed to NIOP's Technical Committee.

Buss AG's Division for Plant Engineering and Construction of Basel, Switzerland, and **Sitec Siber Engineering AG** of Mauer/Zurich, Switzerland, have signed a cooperative agreement to construct supercritical extraction plants. Under the agreement, Sitec will continue to construct laboratory and pilot plants for supercritical extraction, and Buss will design and construct industrial-scale plants based on Sitec know-how.

De Smet Rosedowns has announced delivery of four of its 'K' Type Pre-Press continuous screw presses to **U.S. Canola Processors**, a joint venture of Central Soya Co. Inc. and Calegnee Inc. in Chattanooga, Tennessee. The units are used to prepare rapeseed before solvent extraction.

Procter & Gamble has agreed to buy **Fisher Nut Co.**, which has about 11% of the salted nut market, according to a report in *The Wall Street Journal*. P&G apparently is seeking to increase its over-all market share in the snack food industry.

Lever Bros. subsidiary of Unilever has filed suit in a U.S. federal court alleging a new **Kraft Inc.** product called "Crockery" infringes on Lever's "Shedd's Country Crock" trademark.

Chem Systems Inc. says the first volume of its 1989 topical reports series includes a report on direct hydrogenolysis of fats to produce fatty alcohols. "Recent catalyst developments by **Henkel**, which apparently improve the yield of the glycerine moiety of triglycerides to propylene glycol to nearly quantitative levels, while also giving yields of the alcohols comparable to conventional processes, prompt a reassessment of direct hydrogenolysis," the firm's news release on the report said. The reports are available through Chem Systems Inc., 303 S. Broadway, Tarrytown, NY.

Allelix Crop Technologies Inc., a North American canola developer, and **Sersem**, a French canola plant breeding firm, have signed a pact permitting the American firm to market Sersem's winter canola varieties in most of the United States.

Groen, producers of food manufacturing equipment, has begun work on an expansion of its Jackson, Mississippi, manufacturing plant that will increase its area to about 120,000 square feet from 70,000 square feet.

Grow Group has announced sale of its **U.S. Paint** division to **Nippon Oil & Fats Ltd.** of Japan. Announced price was described as "about $25 million."