# Hydrogenated fish oil gets GRAS status

The U.S. Food and Drug Administration published a notice in the *Federal Register* Sept. 15 granting generally recognized as safe (GRAS) status to partially hydrogenated menhaden oil (PHMO). The approval of the petition, which was submitted to the FDA by the National Fish Meal and Oil Association on June 13, 1986, opens the way for the use of partially hydrogenated fish oil as a direct food ingredient in the U.S.

PHMO has a wide variety of potential applications, including margarine and solid cooking fats used to make bread, pastries, cake, cookies, crackers, biscuits, imitation creams and emulsifiers. Before the FDA's approval, most of the fish oil produced in the U.S. had been exported to Europe, where it is used extensively to produce baked products. The price of PHMO is expected to be competitive with vegetable oils.

Currently, the U.S. produces 125,000 metric tons of fish oil, which would account for about 2% of all edible fats and oils consumed in the United States. According to officials at Zapata Haynie Corporation, which accounts for 70% of the nation's menhaden fish catch, production is not expected to increase substantially in the near future because existing processing facilities are working to capacity. Exports of fish oil are expected to drop as domestic uses develop.

A petition is being planned that would seek a change in the standard definition of margarine to include fish oil, said a Zapata spokesperson. Still pending is a petition to the FDA to approve refined fish oil, where the fatty acids remain intact. This product, which contains omega-3 fatty acids, could find use in canning oils, mayonnaise, salad dressings, sausages and soft spreads. Information: *Federal Register*, Friday, Sept. 15, 1989, p. 38219.

## Omega-3 fractions purified by NMFS

The National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) has successfully separated purified fractions of omega-3 fatty acids from refined menhaden oil using reverse phase high performance liquid chromatography.

Two of the omega-3 fatty acids present in fish oil, eicosapentaenoic (EPA) and docosahexaenoic (DHA) acids, are the focus of concentrated research by the medical community for their purported beneficial effects in the prevention of cardiovascular diseases. The new technology will provide the research community with pure EPA and pure DHA for experimentation under an agreement between the NOAA and the National Institutes of Health.

The report, "Purification of omega-3 fatty acids from fish oils using HPLC," appears in Proceedings of the 12th Annual Conference of the Tropical and Subtropical Fisheries Technological Society, June 1988, p. 74. The work was performed by Judith Krzynowek of the Northeast Fisheries Center, Conservation and Utilization Division, National Marine Fisheries Service, Gloucester, MA. For more information, contact: NOAA ORTA, Suitland Professional Center (SPC), Rm. 307, Suitland, Maryland 20233. Telephone (301) 763-4240.

#### Calgene seeks to test modified cotton plants

The Department of Agriculture's Animal and Plant Health Inspection Service is reviewing an application for a permit to release cotton plants genetically engineered to express bromoxynil herbicide tolerance. The application was filed by Calgene Inc., an agribusiness biotechnology company specializing in the application of recombinant DNA technology to plants. The



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site of the proposed field test will be Hawaii. Contact: Mary Petrie, Program Analyst, Biotechnology, Biologics, and Environmental Protection, Biotechnology Permit Unit, Animal and Plant Health Inspection Service, U.S. Department of Agriculture, Rm. 844, Federal Building, 6505 Belcrest Rd., Hyattsville, MD 20782. Telephone (301) 436-7612. From *Federal Register*, Vol. 54, no. 160, p. 34533, Monday, Aug. 21, 1989.

#### Dietary guidelines changes proposed

The Dietary Guidelines Advisory Committee, which met at the Department of Health and Human Services on August 10, has recommended major revisions in the U.S. Dietary Guidelines. The committee made tentative changes in four of the seven guidelines, nearly added an eighth, and substantially altered the supporting text for all seven. The phrase "avoid too much," used in the two previous editions of the guidelines, was scrapped altogether.

The seven draft guidelines, which are subject to further revision as the committee continues its work this year, currently read as follows: Eat a variety of foods; Maintain healthy/desirable weight; Select a diet low in fat, saturated fat and cholesterol; Eat fruits, vegetables, and grain products daily; Eat less salt and sodium; Use sweets and sweeteners in moderation; and If you drink alcoholic beverages, do so in moderation.

The fat and cholesterol guideline, which generated sharply divergent comments from the American Heart Association and various trade groups, contains controversial numerical goals in the supporting text. The draft of the supporting text for the guidelines notes that health authorities suggest fat intake should be less than 30% of total calories, saturated fat only 10% of calories, and cholesterol intake less than 300 mg daily. Committee members suggested that the text be strengthened by adding explanatory material about the 30% fat recommendation, perhaps expressing it in grams.

Advisory Committee members agreed to submit new drafts of the Guidelines within a month, after which they will be discussed by conference call and at a final formal meeting. Details: Food Chemical News, Aug. 14, 1989, pp. 52-55.

#### FDA voices concern of botulism potential

As a follow-up to a ban earlier this year on unacidulated garlic-in-oil products which require refrigeration for safety, the Food and Drug Administration (FDA) is investigating whether similar unacidulated products, such as garlic in water, herbs in oil or water, or nuts in oil, can support the growth and toxin production of *Clostridium botulinum*.

The assignment was labeled as high priority "due to the need to identify the potential health hazard, if any, associated with these products," FDA said. Both nonrefrigerated products and those labeled as requiring refrigeration may be collected, FDA said, adding that if a product is labeled as requiring refrigeration, then the sample should be shipped refrigerated.

The garlic-in-oil products ban does not prohibit sale of acidulated products whose labels recommend refrigeration after opening. FDA officials say the ban applies to products which rely on refrigeration alone to avert any *botulinum* risk. An acidulated product is considered safe at a pH lower than 4.6. Details: *Food Chemical News*, Aug. 21, 1989, p. 26, and Aug. 28, 1989, p. 2.

#### AHA HeartGuide plan draws criticism

The Food and Drug Administration has expressed concern over the American Heart Association's proposed seal-of-approval program for processed foods, HeartGuide, according to an article in *Advertising Age.* The publication quoted F.E. Scarbrough, Acting Director of the Office of Nutrition and Food Sciences in the Center for Food Safety and Applied Nutrition, as saying, "It's a concern for us that sets up good foods versus bad foods, but without our health (claims) policy out, we are in a weak position to object."

Food companies whose products meet the AHA's criteria for total fat, saturated fat, cholesterol and sodium will be given permission to use the AHA heart-and-torch logo on product labels beginning February 1990. The criteria may not be disclosed "to protect the integrity of the program and prevent misuse of the criteria," according to the AHA.

Participation in the HeartGuide program will cost companies a minimum of \$45,000 and a maximum of \$1.04 million per brand each year. There is a nonrefundable administrative fee of \$40,000 per brand, and an educational fee of \$5,000 to \$1 million per brand, depending on market share. The program will be selfsupporting and will generate no profit for the AHA, the association said.

HeartGuide was developed "in response to public demand and is designed to help reduce public confusion surrounding nutrition information," according to Susanna L. Cunningham, chairperson of the HeartGuide's Public Interest and Oversight Panel.

National Food Processors' Association (NFPA) President John R. Cady has stated that the NFPA "cannot recommend that food processors participate in the AHA HeartGuide program as it is presently crafted," adding that "it is possible that with certain basic changes, NFPA and its members could feel more comfortable about your labeling program." Cady said that his association favors "an FDA policy that would permit all food companies to provide health messages about their products, provided they can be substantiated."

Richard J. Sullivan, executive vice-president of the Association of Food Industries (AFI), also opposes HeartGuide, saying "Consumers seeing a HeartGuide approval on the brand of a generic product like corn oil or olive oil may easily conclude that products without the HeartGuide Seal are inferior...

That conclusion would be erroneous, and the program would be responsible for the error." The AFI "would like to see the AHA abort the highly controversial HeartGuide program before it is launched next February and devote its energies and resources to better educating the consumer through nutritional information in the school system, and in all the media that is at its disposal." Details: *Food Chemical News*, Aug. 14, 1989, pp. 22–23; Aug. 28, 1989, pp. 11–12; Sept. 4, 1989, pp. 11–12.

#### FDA asked to modify 'chocolate' regulations

The Food and Drug Administration (FDA) is considering several requests for changes in chocolate standards and labeling.

Hershey Foods has requested the FDA to include a standard for "white chocolate" in the proposed amendments to standards for cacao products.

Hershey said that "currently, virtually all uses of the term 'white chocolate' arguably would be prohibited by the current and proposed standards for 'chocolate,' which prescribe the presence of ground cacao nibs." The firm said that the absence of a standard of identity for the product has limited introduction of "white chocolate" products in the U.S. and forced companies "to resort to labeling such products with fanciful names to avoid the standardized labeling issues."

The European Community has defined "white chocolate" as "free of coloring matters, obtained from cocoa butter, sucrose and from milk or solids obtained by partially or totally dehydrating whole milk or partially or wholly skimmed milk, and, possibly, from cream, partially or wholly dehydrated cream, butter or butter fat," an article in *Food Chemical News* noted.

Hershey suggested that establishment of a U.S. standard would be consistent with FDA's goal of harmonizing U.S. and European standards, and would enhance the ability of U.S. manufacturers to compete in world markets.

In other cacao-related news, the American Dairy Products Institute (ADPI) and the Chocolate Manufacturers of America (CMA) are in disagreement over proposed changes in milkfat standards for cacao products. CMA submits that the existing minimum 3.66% milkfat content for finished milk chocolate is not reflective of current domestic milk production, and suggests that the fat level required should be reduced so that standardized whole milk can be used to produce milk chocolate.

ADPI opposes reducing the minimum milkfat content and eliminating nonfat milk solids-to-milkfat ratios, alleging an error in the CMA proposal and saying the standards amendments would lower product quality and nutritive value.

CMA argues that changing the milkfat standard would not harm consumers and would "permit technological flexibility and the opportunity to produce a wider variety of products to fill consumer needs."

The International Ice Cream Association (IICA) supported an amendment that would prescribe the name "chocolate-flavored coating" for products containing cocoa, or a mixture of cocoa and chocolate liquor, and vegetable fat other than cacao fat. IICA said the current standardized name, "sweet cocoa and vegetable fat (other than cacao fat) coating," is awkward and generally not used in the industry. The association sought approval for the alternative name, "chocolate-flavored coating," explaining that the term is currently employed for many similar products.

The IICA also urged that the standards be amended to include a provision for frozen dessert coatings, allowing the addition of "safe and suitable vegetable derived oils, fats and stearins other than cacao fat to standardized cocoa products." Asserting that the use of fats and oils would be limited to minimum amounts needed to achieve the intended function, IICA asked that no minimum or maximum level of fats be specified. Details: *Food Chemical News*, Aug. 21, 1989, pp. 28–29; Aug. 28, 1989, pp. 35–37.

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