



THE Society for Food Science & Technology

April 20, 2009

Ms. Carole Davis  
Co-Executive Secretary  
Dietary Guidelines Advisory Committee (DGAC)  
Center for Nutrition Policy and Promotion  
US Department of Agriculture  
3101 Park Center Drive, Room 1034  
Alexandria, VA 22302

Re: Comments Relevant to the 2010 Dietary Guidelines Revision Process

Dear Dietary Guidelines Advisory Committee (DGAC) members:

The Institute of Food Technologists (IFT), is a not-for-profit professional, scientific society committed to advancing the science of food. Our 20,000+ members work in food science, technology, and related professions in industry, academia, and government. IFT's long-range vision is to ensure a safe and abundant food supply contributing to healthier people everywhere. IFT appreciates the opportunity to provide comments pertinent to the development of the 2010 Dietary Guidelines for Americans.

*Food science and technology*

IFT believes that food science and technology considerations are integral to the 2010 Dietary Guidelines deliberations. Food scientists and technologists can help ensure that nutrition recommendations are realistic and achievable, given the food industry's capabilities for meeting consumer needs and preferences with available technologies. Our members are valuable resources on research in food and nutrition sciences, and the impact of food processing techniques on nutritional quality. Food scientists and technologists can also provide insight into the time and cost involved in reformulating food products that will help consumers meet Dietary Guidelines recommendations and be acceptable to them.

Use of food science and food technologies dramatically shape the character of the food supply; practical, achievable dietary recommendations can be made, but there are also technological limitations that must be considered. Food scientists and technologists can inform the DGAC on the functionality-based utility of various ingredients for creating healthy, safe, and affordable food products. Working together, the food industry and the DGAC will be in a better position to more effectively help consumers meet the Dietary Guidelines.

*WORLD HEADQUARTERS*

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*Evidence-based Review Process*

IFT supports an evidence-based review process for development of the 2010 Dietary Guidelines, to ensure that credible, scientific evidence supports all recommendations considered. Any potential nutrient changes in the Guidelines should be supported by sound scientific evidence. Deliberations about the potential addition, reduction or removal of nutrients of public health concern for development of the 2010 Dietary Guidelines would benefit from the inclusion of food scientists and technologists for insight into pertinent food system (e.g., food manufacturing) considerations.

*Sodium*

Progress has been made in reformulating food products to enable consumers to reduce dietary sodium intake, but technical and processing challenges remain. Food manufacturers must balance the multiple functions of sodium in food beyond taste, such as its effects on other flavors, texture, microbial control, and color, to create wholesome, appealing food products. Many food companies have made tremendous progress in optimizing consumer acceptance of products reformulated for sodium reduction, yet additional research and development efforts are needed to pursue additional mechanisms for meeting consumer needs and preferences. Additional research is needed to resolve the challenges through further innovations. Further investigation of salt perception via salt-stimulating or blocking receptors, for example, sensory aspects of salt substitutes, and effects of salt on other flavorants will be valuable. More research is also needed to establish the minimum amount of dietary sodium needed to maintain proper functioning of the human body for all subsets of the population, including athletes exercising in high-temperature environments and immunocompromised individuals with diarrhea. Although the Adequate Intake amount for sodium of 1.5g/day should be sufficient to maintain normal health and development, research suggests this level may not provide enough dietary sodium for all subsets of the population.

*Dietary Fats*

Similar to sodium, dietary fats contribute significant functionality to food products as well as conferring important nutritional benefits. Fats are used in food manufacture for several purposes including development of flavor, color and their significant impact on texture. Specifically, fats are chosen for various food applications based on their ability to confer textural variety in sauces and dressings, chocolates and confectionaries, and baked goods. The fatty acid composition of fats and oils markedly affects their ability to function in food formulations and the very chemistry that affects food formulation also is believed to affect nutritional and health outcomes. At present the food industry is making significant strides in reducing the amount of saturated fatty acids in processed foods, and also reducing or eliminating *trans* fats developed in food production and manufacture

when liquid fat is used. New forms of oils with increased levels of monounsaturated fatty acids, which are more chemically stable than polyunsaturated fatty acids, are being developed for use in processed products, thus reducing or eliminating the need for chemical hydrogenation (and formation of *trans* fats). Although the food industry has created *trans* fat-free products by substituting oils with monounsaturated fatty acids, there are still limitations as to what can be done in baked goods and other food products that must use solid fat to lend texture. The only current options are to lower *trans* fat (not eliminating it) or to replace *trans* fats with saturated fatty acids. Nutrition science increasingly supports the nutritional benefits of consumption of monounsaturated fatty acids, in preference to higher levels of saturated fatty acids, due to their positive outcomes in several cardiovascular disease risk markers, and *trans* fat-free oils meet those recommendations. Although vegetable oils containing enhanced levels of oleic acid, with a marked reduction in palmitic acid, are better able to meet the dietary recommendations coming from the 2005 Dietary Guidelines for Americans, the DGAC must still consider the challenges the food industry faces in reducing *trans* fats when solid fats must be used in food products.

#### *Fortification*

The DGAC may wish to consider expanding recognition of fortified foods as viable sources of nutrients in shortfall among some subpopulations. Given the importance of long chain omega-3 fatty acids such as eicosapentaenoic acid (EPA; 20:5) and docosahexaenoic acid (DHA; 22:6n-3) for cardiovascular disease, as well as the developing fetus and the diet of pregnant and lactating women, the Committee may wish to consider endorsement of long chain omega-3-fortified foods, as was done for folic acid in the 2005 Dietary Guidelines. Exploration of the beneficial effects of omega-3 fatty acids generally should be made with regard to food fortification considering that it is often difficult for many populations to obtain their long chain omega-3 fatty acids from natural sources. Fortification of processed foods is a positive means to enhance the dietary contribution of many products widely available to Americans generally and subpopulations specifically, including the economically disadvantaged.

#### *Food Safety*

IFT will publish in July 2009 an Expert Report entitled *Making Decisions about the Risks of Chemicals in Foods with Limited Scientific Information* that could serve as a very useful resource to deliberations. We will provide DGAC members with copies of the report upon release and would welcome an opportunity to present key pertinent findings to this group. IFT has also published comprehensive reports on food allergens that the committee may find useful (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118607170/PDFSTART>). The report, arising from a task order of IFT's

contract work with the US Food and Drug Administration, addresses the state of manufacturing and labeling practices used by the food industry to address allergen concerns. Allergen awareness in the food industry has increased in recent years and the majority of companies use allergen control measures and thoroughly label for allergens.

Food science and technology is integral to addressing rapidly changing demands of the global marketplace and meeting consumers' needs for a safe and abundant food supply that contributes to health and wellness. Continuing advances in food science and technology are enabling development and delivery of more appealing foods with important health benefits. IFT is pleased to connect the DGAC with food science and technology to advance the science of food and enhance the 2010 Dietary Guidelines for Americans.

IFT appreciates the opportunity to provide comments for your consideration. Please contact Mr. William Fisher, IFT's Vice President of Science and Policy Initiatives, if we may provide further assistance. Mr. Fisher may be reached at 202-330-4977 or via email at [wfisher@ift.org](mailto:wfisher@ift.org).

Sincerely,



Sheri Schellhaass, Ph.D.  
President