

FOOD Insight™

IFIC Foundation
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May / June 2003

USDA Launches Organic Standards New Rules Welcomed, But Are Organics Better?



Before the new National Organic Standards (NOS) were implemented in October 2002 more than 50 private organizations and state agencies had set their own standards and had varying definitions of “organic.”

Not all states had the same rules and regulations: the rules of some states were stricter and more complex than those of others. Food labeled “organic” in California, for example, may have differed from what was labeled “organic” in Michigan or New York.

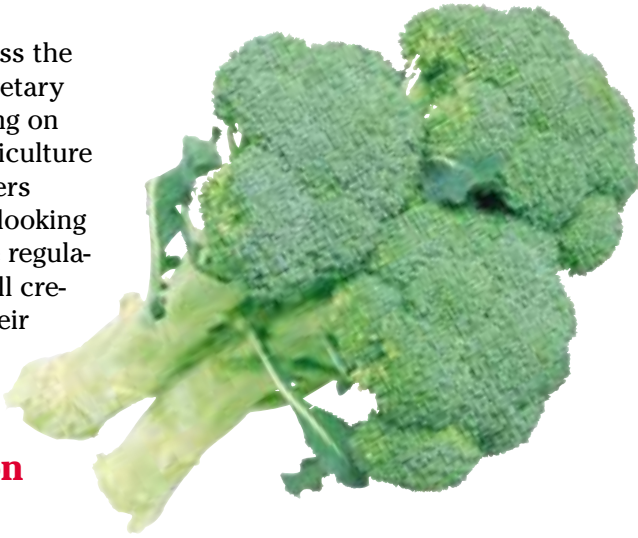
That all changed when the U. S. Department of Agriculture (USDA) launched the NOS for agricultural products in October 2002. It marked the beginning of consistent certification and labeling of organic products from coast to coast. Now all foods that are sold, labeled, or represented as organic will have to be produced and processed in accordance with these federal standards.

“When consumers see the USDA organic seal on products, they will know that the products labeled

organic will be consistent across the country,” said Agriculture Secretary Ann Veneman at a press briefing on October 21, 2002. “Organic agriculture is increasing and organic farmers across the country have been looking forward to the release of these regulations with anticipation they will create consumer confidence in their products.”

Use of Organic Foods and Products on the Rise

Organic food is gaining in popularity. According to USDA and organic trade groups, the industry is growing between 20 to 25 percent annually, and has been for the last several years. U.S. retail sales of organic food were estimated to be over \$9 billion in 2001, according to the Organic Trade Association. In comparison, overall U.S. retail food sales — at home and away from home — totaled more than \$800 billion in 2001, according to USDA’s Economic Research Service. Still, with the growing popularity of organics the need



for standards that would protect both consumers and the industry was critical.

“I think the standards are in the best interest of consumers in terms of consumers wanting to make sure that the product is appropriately labeled as organic,” said Dr. Carl Winter, a food toxicologist and director of the FoodSafe Program at the University of California-Davis. “There were a large number of different types of organic certification agencies that existed throughout the country with different standards. There’s uniformity now, and I think consumers feel better about that.”

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Glycemic Index: The Ups and Downs of Indexing Blood Sugar

Over the past several years, books such as *Sugar Busters*, *Dr. Atkins' New Diet Revolution*, and *The Zone* have presented the idea that eating carbohydrates leads to weight gain and obesity. Essentially, these books promote the idea that some carbohydrates are "high-glycemic-index" foods that raise blood sugar levels, cause excess insulin to be secreted, and lead to the storage of fat. The authors encourage people to eat foods with low glycemic indices or no glycemic index such as proteins (meat, fish, poultry, eggs) and fats (oils, margarines, nuts, full-fat salad dressings), and to eat only small amounts of carbohydrates, to promote weight loss and good health.

This sounds very plausible and scientific, except for the fact that the glycemic index is very difficult to apply to foods consumed in the real-world environment, where the glycemic index can vary widely depending on the ripeness of a food, the degree to which a food is cooked, and other factors. That is why there are questions about its use as a measure on which to base dietary recommendations for the general population.

Glycemic index is a measure of how carbohydrate-containing foods affect blood glucose levels. All foods that contain carbohydrates, such as starchy vegetables (potatoes, corn), desserts, fruits, bread, pasta, and rice, can be tested for how they affect blood sugar levels after being eaten. Glycemic index is assessed by having one or more people eat a specific amount of a single food [usually 50 grams of digestible carbohydrate (total carbohydrate minus fiber)] and then measuring the change in blood sugar levels compared with the levels achieved after they have eaten a control food containing the same amount

of digestible carbohydrate, such as white bread or glucose. The average change in blood sugar levels over a set period of time relative to the levels after consumption of the control food, usually white bread or glucose, is the food's glycemic index.

Foods can be ranked according to how much blood sugar levels rise. Given sufficient quantities, all carbohydrate-containing foods eventually raise or maintain blood sugar levels to some extent. High-fat and high-fiber foods typically have lower glycemic indices. Both the fat and the fiber in these foods can slow the rate of gastric emptying and therefore reduce the rate of delivery of carbohydrate to the small intestine, where it is digested and glucose is absorbed. Fat actually inhibits or delays gastric emptying, and many (but not all) fibers simply increase the viscosity or increase the mass to slow the emptying rate. Fibers have also been shown to decrease blood glucose levels.

You might expect that foods with more sugar, such as candy, soft drinks, and sweetened cereals, would have higher glycemic indices than other less sugary foods such as baked potatoes or corn flakes. It turns out, however, that baked potatoes and corn flakes have higher glycemic indices than jellybeans and soft drinks.

Ranking and eating foods according to their glycemic indices has a number of problems as a prescription for healthful eating. First, a person's blood sugar response to eating

a food can vary from day to day and also according to how the food was prepared. Even something as simple as ripeness, e.g., in the case of bananas, can affect the glycemic index (the riper the banana, the higher its glycemic index). Second, once a food is combined with other foods (such as cereal and milk or peanut butter and bread), the glycemic index of the meal will be very different from that of either food alone. Finally, the amount of food eaten to measure the glycemic index is often different from the amount of food eaten in a typical serving. The bottom line is that creating a diet based on the glycemic index alone is impractical, can result in an eating plan that may exclude some nutrient-rich foods, and render the diet less palatable overall.

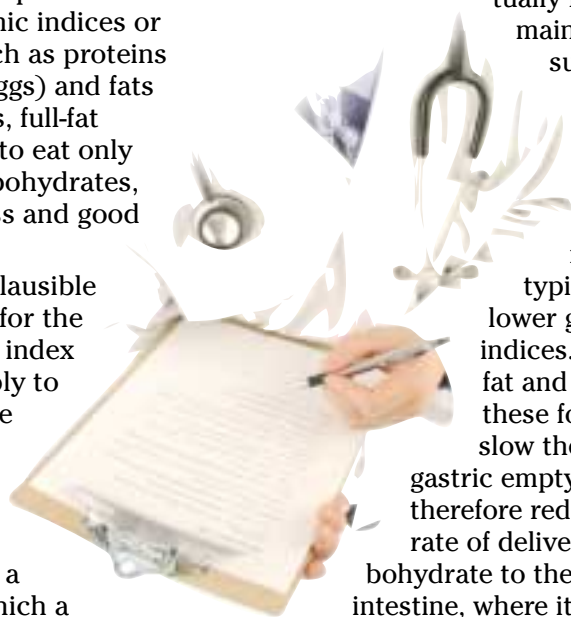
Advice about dietary carbohydrates has not changed much over the past 30 years: experts generally encourage people to build their diets around nutrient-dense carbohydrates, for the most part, and then to include a moderate amount of protein and some fat. Also, to help reduce risk for many of the lifestyle-related diseases such as heart disease, diabetes, and high blood pressure, keeping your weight in check and exercising regularly will help a great deal. You can include all types of food in your eating plan. Be sure to plan for the calories of the foods you eat and not just their glycemic indices alone.

Sources of information for this article:

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Are Organics Better?

It took more than 10 years and hundreds of thousands of comments from government, scientists, growers, and consumers to implement the new standards. In 1990, the U.S. Congress passed the Organic Food Production Act of 1990 to facilitate commerce and to assure consumers that organic products meet consistent standards. In December 1997, USDA proposed a new National Organic Program (NOP) and solicited comments. In March 2000, after reviewing more than 275,000 comments, the USDA issued a revised proposal. More than 40,000 additional comments were received, many of which were incorporated into the final rule (published in the Federal Register on December 20, 2000). This final rule was fully implemented on October 21, 2002.

“From my perspective, as a grower selling into the processing food industry, I think it’s important that there are national standards,” said John Diener, a California grower who farms about 4,000 acres, 600 of which are organic. “Now across the United States you have compliance at a somewhat homogenous level.

“It’s good to have uniformity. No longer is there a set of standards from Santa Cruz (California) and a different set of standards from Hartford (Connecticut),” said Diener.

Veneman said that consumers will now see the results of USDA’s hard work.

The most visible results will be on signs and product labels in the marketplace. USDA developed strict labeling rules that apply to raw, fresh products and processed foods that contain organic ingredients. These rules are intended to help consumers know the exact organic contents of the foods they purchase. Before any product can be labeled organic, a government-approved certifier inspects the farm where the food is grown to ensure the grower is following all rules to meet USDA organic standards. Companies that handle or process organic food also must be certified.

Label Guidelines

“100 percent organic”

- All of a product’s ingredients or contents are organic. The USDA Organic Seal can be displayed on these products.

“Organic”

- The product must consist of at least 95 percent organically produced ingredients. The USDA Organic Seal can be displayed on these products.

“Made with Organic Ingredients”

- The product must contain at least 70 percent organic ingredients and can display the phrase “Made with Organic” followed by a listing of up to three specific ingredients.

Products that contain less than 70 percent organic ingredients

- These products cannot use the term “organic” anywhere on the display label. However, specific organic ingredients can be listed on the ingredients statement on the information panel.

What is “Organic?”

These labels and signs may clarify whether a product is 100 percent organic or contains organic ingredients, but do consumers really know what “organic” means? USDA defines “organic” food as food grown and processed without using most conventional pesticides; without fertilizers made with synthetic ingredients or sewage sludge, without biotechnology; and without ionizing radiation.

The pesticide issue can be somewhat misleading. Consumers who purchase organically grown and

processed foods as a way to reduce their potential exposure to synthetic pesticides and fertilizers should not assume that organically grown food is pesticide-free. Likewise, they should not assume that all conventionally grown foods are grown with pesticides. Just because a pesticide is registered for use on a particular crop does not mean that a grower will use it, according to Winter.

“As an educator, I would love for the general population to have a much better understanding of what organic food is and what it isn’t, and what conventionally grown food is and what it isn’t,” said Winter. “I would be very happy if most consumers understood the differences rather than base their views primarily on the assumed superiority of organics.”

“While there certainly is interest in organic foods at the consumer level and a lot of attention is given to the issue, at the same time there may not be a strong understanding as to what organic really means — or in many cases, what organic doesn’t mean,” said Winter. “If you ask people, ‘Are pesticides allowed to be used in organic production?’ most people would say, ‘No, of course not. That’s why they’re organic.’ When in fact there is a list of permitted materials that can be used, which includes many of the same materials that have been commonly used in conventional agriculture for decades.”

This National List of Allowed and Prohibited Substances was created by the National Organic Standards Board (NOSB) and contains natural (or biological) and synthetic substances that are allowed in organic farming and production as well as natural substances that are prohibited. Included on the list are botanicals (plant-derived materials such as rotenone), microbials (*Bacillus thuringiensis*, or Bt), synthetics (insecticidal soaps, horticultural oils), and minerals (sulfur, copper, copper-zinc).

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April 2003 IFIC Survey: Americans' Acceptance of Food Biotechnology Matches Growers' Increased Adoption of Biotech Crops

A growing majority of Americans support the benefits of food biotechnology as well as the U.S. Food and Drug Administration's (FDA's) labeling policy, as shown by a survey of U.S. consumers commissioned by the International Food Information Council (IFIC) in April 2003.

Biotechnology is becoming an integral part of U.S. agriculture, with biotechnology seed usage expected to reach all-time highs this year. Since 1997, IFIC has provided the longest, continuous series of publicly available surveys to determine how consumers feel about food biotechnology.

"Attitudinal research by IFIC and other organizations over the past decade shows that agricultural biotechnology is not likely to become an issue of concern for most American consumers. When given adequate context, U.S. consumers find biotechnology acceptable and look forward to its benefits," according to David B. Schmidt, Senior Vice President, Food Safety & Global Relations for IFIC.

IFIC's eighth consumer survey on food biotechnology found that most Americans (62 percent) believe that biotechnology will benefit them or their families in the next five years. Consumers anticipate benefits, including improved quality, taste, and variety of foods (43 percent); improved health and nutrition (40

percent); reduced chemical and pesticide use on plants (19 percent); reduced cost of food (10 percent); and improved crops and crop yields (9 percent).

Support for these benefits is also seen in the total number of Americans (69 percent) who would be likely to purchase a variety of produce — such as tomatoes or potatoes — that has been "modified through biotechnology to be protected from insect damage and require fewer pesticide applications." In addition, 56 percent of consumers are likely to purchase the same produce if it has been modified through biotechnology to "taste better or fresher."

Pesticide use is decreasing, according to data released in February 2003 by the U.S. Department of Agriculture's (USDA's) Agricultural Resource Management Survey. The survey has been recording the herbicide use and tillage practices of farmers since 1996, when biotech crops first became available to growers. These numbers show that since the introduction of biotech soybeans, farmers have been able to reduce the amounts of herbicides that they apply to their crops — which not only reduces the total amount of pesticides used but also the frequency of cultivation needed for weed control, as well as the cost per acre required for the farmer to produce the crop.

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April 2003 Survey

The IFIC survey also found in an open-ended question that 77 percent of consumers could not think of any information “not currently included on food labels” that they would like to see added. Of those who would like additional information, most identified nutrition information (9 percent) and ingredients (4 percent) as their top choices, whereas only 2 percent of consumers named anything related to “genetically engineered” as an item that they would like to see added to a food label.

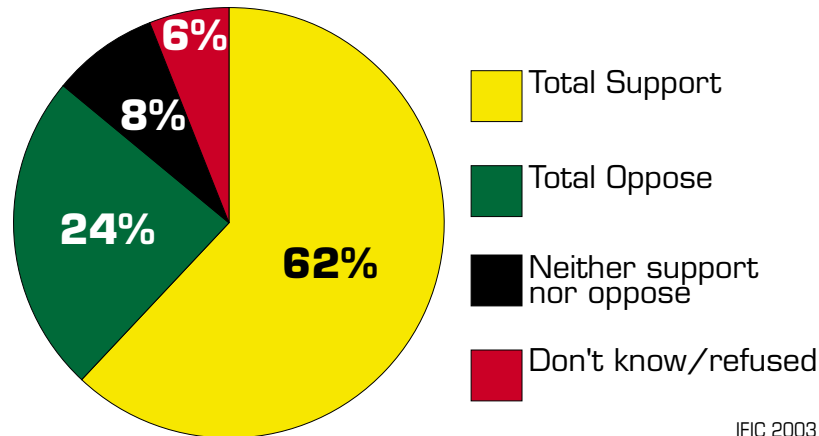
Continuing an upward trend from last year, 70 percent of consumers surveyed either support or do not oppose the FDA policy on the labeling of foods produced through biotechnology; with a 2.6 to 1 ratio of the number of people who “strongly support” the policy to the number who “strongly oppose” it. The IFIC survey provides context by describing the current FDA policy: “FDA requires special labeling when a food is produced under certain conditions: when biotechnology’s use introduces an allergen or when it substantially changes the food’s nutritional content, like vitamins or fat, or its composition. Otherwise, special labeling

is not required. Would you say that you support or oppose this policy of the FDA?”

Consumer awareness remains stable, with 73 percent of respondents saying they have read or heard “a

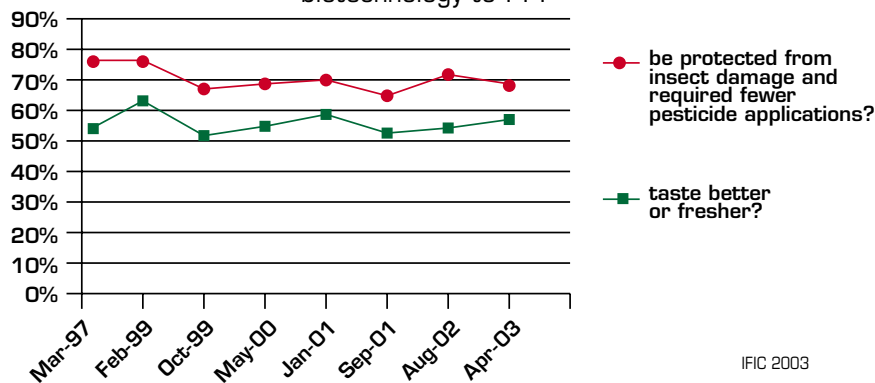
lot,” “some,” or “a little” about biotechnology. In addition to strong consumer support of agricultural biotechnology, recent data released by the USDA’s National Statistics Service found that U.S. farmers intend to increase the amounts of biotech crops that they will plant in 2003. Planting estimates for 2003 biotech crops are as follows: the amount of biotech corn planted will increase by 4 percent to 38 percent of all corn planted in the United States, the amount of biotech soybeans planted will be up by 5 percent to 80 percent of the total crop, and the amount of biotech cotton planted will remain statistically

Support for FDA Labeling Policy on Food Biotechnology



IFIC 2003

All things being equal, how likely would you be to buy a variety of product, like tomatoes or potatoes, if it had been modified by biotechnology to . . .



IFIC 2003

According to Schmidt, “The strong support for the current policy may reflect the public’s overall confidence in the FDA’s ability to regulate food, but it also is likely the result of having more information and context from which to relate an educated opinion. Other surveys that lack context or use negative, emotional terms to frighten consumers do not accurately reflect the wisdom or attitudes of most consumers.”

unchanged at 70 percent.

The survey was conducted April 1 to 10, 2003 by Cogent Research, Cambridge, Massachusetts, and consisted of approximately 1,000 telephone interviews among a nationally representative sample of adults ages 18 and older in the continental United States. Full survey results and consumer information can be found on the IFIC Web site (<http://ific.org>).

Sensible Practices for Organic and Conventional Produce

Whether you purchase organically grown or conventionally grown produce, the U.S. Environmental Protection Agency recommends these healthful, sensible food practices:

Washing:

Wash and scrub all fresh fruits and vegetables thoroughly under running water. Running water has an abrasive effect that soaking does not have. This will help remove any bacteria or traces of pesticide residues from the surfaces of fruits and vegetables and remove dirt from crevices. Not all pesticide [or bacterial] residues can be removed by washing.

Peeling and trimming:

Peel fruits and vegetables when possible to reduce the amount of dirt, bacteria, and possible pesticide residues. Discard outer leaves of leafy vegetables.

Selecting a variety of foods:

Eat a variety of foods from a variety of sources. This will give you a better mix of nutrients and reduce any potential exposure to a single pesticide.

Source: U.S. Environmental Protection Agency Pesticides and Food: What You and Your Family Need to Know. (<http://www.epa.gov/pesticides/food/tips.htm>).

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Are Organics Better?

Produce is Safe — Eat and Enjoy

Whether the produce is grown organically or conventionally, with or without pesticides, leading health authorities — including the National Cancer Institute, American Cancer Society, U.S. Surgeon General, American Dietetic Association, and American Heart Association — agree that fruits and vegetables are safe for both adults and children. They encourage consumers to eat at least five servings of fruits and vegetables each day for better health. These experts have taken pesticide residues into consideration when making these recommendations.

There is no credible evidence that a diet rich in organic (as opposed to conventionally grown) fruits or vegetables is safer and better for you. In fact, USDA makes no claims that organically produced food is safer or more nutritious than conventionally produced food. Organic food differs from conventionally produced food only in the way in which it is grown, handled, and processed. For example, fresh, organic produce grown with manure could be less safe than conventionally grown produce unless it is cooked sufficiently to eliminate harmful bacteria.

“Consumers who are philosophically driven believe that organics are better,” said organic and conventional grower Diener. “But I honestly can’t say that organic foods are better. An organic tomato is not superior to a conventional tomato. I don’t think there’s 10 times more lycopene in an organic tomato than in a conventional tomato.”

Adds Winter, “Certainly there’s the expectation on the part of a large percentage of consumers that believe organic products will be safer and maybe more nutritious than conventional produce, but there is no scientific data or literature to back that up.

“From my perspective, both organic and conventional foods are very healthful products for people to consume,” he adds. “I personally don’t care which type people are eating, provided they are eating enough fruits, vegetables, and grains and that they have access to them and can afford them.”

For more information, visit
<http://www.ams.usda.gov/nop/>

What’s New at IFIC.ORG?

Look for great changes soon at ific.org.

We’re redesigning and renovating the IFIC Web site

(<http://ific.org>) for your convenience, and we’d love your feedback.



Food News

“Inside the Beltway”

A combination of high-profile speakers, exciting topics, and national media attention contributed to one of the best-attended National Food Policy Conferences to date.

Consumer Federation of America held the 26th Annual National Food Policy Conference in Washington, DC May 8-9, 2003. More than 350 people attended the conference, a seventy-five percent increase over last year. An intense debate over America's growing obesity epidemic kick-started the 2003 Conference with EPA Administrator Christine Todd Whitman, Secretary of Health and Human Services Tommy Thompson, and Commissioner of the U.S. Food and Drug Administration Dr. Mark McClellan, among the noted speakers.

Sessions of interest included:

Designer Diets: Dr. John Milner (National Cancer Institute) and Sylvia Rowe, President & CEO of the International Food Information Council (IFIC) discussed the emerging concept of “individualized” nutrition. Milner presented the state of the science behind individualized nutrition and emphasized that “one size does not fit all” in terms of dietary recommendations; he urged health professionals to keep current on the science known as nutrigenomics. Rowe spoke about consumer perceptions and communication principles related to this emerging science. She noted that, according to IFIC's attitudinal research, consumers are more receptive to the term “individualized” nutrition than to nutrigenomics, which some consider too technical and difficult to understand. Author Katherine Tallmadge, MA, RD also spoke about the application of the science for health professionals counseling individual patients.

Acrylamide: A panel of government, industry, academic, and consumer research experts updated attendees one year after Swedish scientists made global news by first discovering the compound acrylamide in starchy foods cooked at high temperatures. While there is consensus that the compound forms naturally as part of the cooking process and has probably been a component of foods for generations, the discovery of acrylamide set off a flurry of research in government, industry, and academic quarters to better understand its formation and whether levels could be reduced in foods. Dr. David Lineback, of the University of Maryland's Joint Institute for Food Safety and Applied Nutrition, moderated the panel and indicated that much more research needs to be conducted. He stated that U.S. and international authorities believe no dietary changes are needed at this time, while they continue to encourage consumption of a balanced diet with emphasis

on fruits and vegetables. Consumer research presented by IFIC indicates most consumers are following that advice while “the jury is still out” on our understanding of acrylamide.

Putting Prevention First

On April 15 and 16, 2003, U.S. Department of Health and Human Services (DHHS) Secretary Tommy Thompson convened a national health summit, Steps to a Healthier U.S.: Putting Prevention First, to promote the critical role that prevention efforts will serve in addressing the future incidence of chronic diseases and their associated healthcare costs.

“I am convinced that preventing disease by promoting better health is a smart policy choice for our future,” Secretary Thompson said. The HealthierUS initiative, launched by President George W. Bush in June 2001, focuses on reducing the major health burden created by obesity, asthma, diabetes, heart disease, stroke, and cancer by being a source of credible, accurate information to help Americans choose to live healthier lives.

Summit speakers provided inspiration and tools to promote prevention at the national, state, and local levels to the 1,000 summit participants, which included community leaders, health department officials, business leaders, healthcare providers, policy- and decision-makers, government officials, and legislators.

In addition to Secretary Thompson's backing, the summit enjoyed support from Secretary of Education Rod Paige, Secretary of Agriculture Ann Veneman, Surgeon General Richard Carmona, National Institutes of Health Director Elias Zerhouni, Centers for Disease Control and Prevention Director Julie Gerberding and other top officials from DHHS and other federal departments, community leaders, public health officials, and business and education leaders.

For more information about HealthierUS, visit www.healthierus.gov or www.whitehouse.gov.

New IFIC Foundation Publications

Below are the newest releases from the IFIC Foundation. Single copies of most publications are available free-of-charge. For a comprehensive listing of publications or for bulk prices, please request the IFIC Foundation Publications List below.

Publications List (MI-4010)

A complete list of publications and *Food Insight* reprints available from the IFIC Foundation.

Fish & Your Health (EB-2095)

This brochure takes a look at the benefits of fish and seafood in a healthful diet. Provides information on the impact of omega-3's and seafood consumption for the general consumer, children and issues on guidance for pregnant women. Favorably reviewed by the American Academy of Family Physicians Foundation.

Weight Loss; Finding A Weight Loss Program that Works for You (EB-2090)

This helpful, easy-to-use brochure provides information and check lists for evaluating weight loss programs and services and helps consumers ask the right questions to choose a safe and effective weight loss method.

Prevent Childhood Choking: It's Up to You! (MI-4260)

This colorful 2-sided poster in both English and Spanish is suitable for home or daycare use to help parents and caregivers take the necessary steps to prevent childhood choking on food or other objects. Developed in partnership with the National SAFE KIDS Campaign. Single copies free, multiple copies \$1.50 each.

Caffeine and Women's Health (EB-2040)

Revised and updated brochure providing current scientific facts about caffeine and women's health, including such topics as pregnancy and osteoporosis. This referenced document was developed in partnership with the Association of Women's Health, Obstetric and Neonatal Nurses.

IFIC Review: Understanding Food Allergy (IR-3070)

This referenced white paper offers the latest scientific information on food allergy. It provides an overview on how to distinguish a food allergy from other sensitivities to food.

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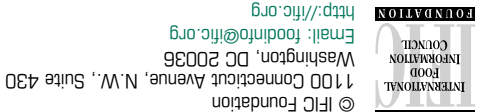
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Current Topics in Food Safety & Nutrition



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