Consumers Confused About Emerging Food Technologies

DES MOINES, Iowa — The American public remains in the dark about new food-enhancing technologies, a recent survey shows. CMF&Z Marketing Communications' eighth annual food safety survey reveals that most consumers surveyed were uncertain about several food-related terms that have surfaced in the last few years.

The survey measures consumer attitudes on a wide range of food safety issues. CMF&Z conducts the survey to assist its agriculture and food industry clients in identifying emerging issues and trends in food safety.

Consumers were asked to define several food-related terms, including "biotechnology," "irradiation," "functional foods" and "genetically modified organism." The survey revealed that most consumers were uncertain about the terms.

For example, almost 40 percent of respondents said they could not define "biotechnology." Seventeen percent defined it as "involving genetic alterations or engineering," and fewer than 10 percent correctly said it "involved an altered or enhanced product."

Scant Understanding of GMOs

Although more consumers were able to define "genetically modified organism" than they were able to define other terms tested in the study, only 29 percent of consumers responded correctly that GMOs have been subject to a change in DNA. Twenty-three percent couldn't define GMO at all, and nearly half offered definitions that were vague or incorrect.

Functional Foods Draw a Blank

Consumers appeared to be less knowledgeable about functional foods than any of the other terms. Virtually no respondent could correctly identify the term. A majority, 51 percent of those surveyed, did not know that a functional food is a food containing potential health benefits beyond the traditional nutrients they provide. Eleven percent responded that functional foods are foods necessary to survive. Other responses included "healthy food," "foods that are easy to make," and "foods in the basic food groups."

"This and other research tells us that consumers are largely unaware of advances in food technologies," said Dr. Thomas Hoban, Professor of Sociology and Food Science at North Carolina State University. "In fact, many modern consumers think their food comes from the grocery store or restaurant. They rarely think about how it gets there."

"The good news is that most consumers are actually quite positive about food technologies once they understand the benefits and are confident that the foods are safe," Hoban says. "It's imperative for food and agriculture industries, with the help of the media, to deliver clear and concise consumer information on new developments in food production and processing."

Irradiation Gaining Favor as Food Safety Tool

Consumer awareness of irradiation among respondents in this year's survey remains at about the same level as it was in 1999 (53 percent in 2000 compared to 54 percent last year). However, the percentage of consumers who see irradiation as a "very effective" food safety tool increased. Fifty-seven percent in 2000, compared with 47 percent in 1999, rated irradiation as a very effective tool for meat and poultry products. Fifty-two percent this year said the process is a very effective tool for produce, compared to 42 percent in 1999.

Twenty-one percent of consumers knew that irradiation involves using radiation to kill bacteria or other organisms, and eight percent said irradiation means to use radiation on food. Roughly two-thirds of those who are aware of irradiation also said they were at least "somewhat likely" to purchase irradiated foods.

Natural and Organic Foods Rated Safest

The survey also revealed that consumers believe natural and organic products are the safest types of food, ranking above food bought at grocery stores or at restaurants, functional foods and irradiated foods.

Sixty-nine percent of consumers surveyed responded that natural foods are "very safe," and 58 percent gave the same rating to organic foods. Only 33 percent gave this rating to food eaten at full-service restaurants, and 22 percent said irradiated foods are "very safe."

"The survey data suggest that consumers believe that the 'safest' foods are those which have been exposed to minimal processing and have had minimal exposure to chemicals — safer than the foods they buy every day in grocery stores or order at restaurants," said Bill Brewer, vice president of public relations at CMF&Z. "The agriculture and food industries have an opportunity to fill the information void and enhance consumer acceptance of emerging technologies. But agri-food communicators must move quickly and deliver messages that are easily understood."

The nationwide survey, conducted in May 2000, questioned 401 randomly selected consumers on a variety of food safety issues. The consumer survey has a margin of error of +/ 4.9 percentage points.

Pumpkin

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1½ teaspoons ground cinnamon
1 teaspoon baking soda
½ teaspoon salt
½ teaspoon ground ginger
¼ teaspoon ground nutmeg

Cream butter in a large bowl. Gradually beat in honey until light and fluffy. Add eggs, one at a time, beating well after each addition. Combine carrots, raisins, nuts, if desired, orange juice and vanilla in medium bowl. Combine all dry ingredients to creamed mixture alternately with carrot mixture, beginning and ending with dry ingredients. Pour batter into greased cake pan. Bake at 350 degrees 35-45 minutes or until toothpick inserted in center comes out clean.

Renee Blatt
PA Honey Queen

What Is Malted Milk Powder Made From

The malt that goes into your favorite smooth, milky ice cream treat is the same stuff that goes into another beverage - beer.

Malting is the process in which a seed of grain is allowed to start growing in a controlled process, then is dried and roasted.

While practically any cereal grain such as rye, wheat, rice or corn, can be used to make malt, barley by far is the most common. Raw barley starts out as a very hard seed that's full of starch and protein. Processors "fool" it into thinking it's going to grow into a plant by putting the grain in a tank with water to absorb moisture. This step is called "steeping."

As the seeds start to sprout, they enter the next stage of malt-making: *germination. During this stage, the seeds make enzymes that break down the protein and also begin to break down the starch.*

Processors stop the sprouting action by taking the sprouted seeds, or "green malt," and drying and roasting them in a kiln. The flavor and color of the end product depends mainly on how long the grain is roasted in the kiln, and how hot the kiln is allowed to get.

The flavor of some long-roasted malted grain is reminiscent of semi-sweet chocolate. Malt that's prepared for Scotch whiskey is dried over a fire with peat added to it - the smoke also affects the flavor.

The final steps in producing malt powder require mixing the malted grain with hot water (a step called mashing), converting the starch into sugars and extracting them from the grain. The resulting sweet liquid is called wort, which brewers ferment to make beer. *It is spray dried to form a powder that we mistakenly call malt.*

Dried wort is the powdery stuff we call malt. Add it to ice cream and you get a malted milk shake. Mix with powdered milk, and you get malted milk powder.

By far, most malted barley produced today is used to make beer and other fermented products, such as malt whiskey. Malted barley is also used as a source of starch in malt vinegar, certain breakfast cereals (such as Malt-O-Meal), malt syrup, barley malt flour, baby foods, candies and baked goods.

Chow Line is a service of The Ohio State University. Send questions to Chow Line, c/o Martha Filipic, 2021 Coffey Road, Columbus, OH 43210-1044, or filipic.3@osu.edu.