



The Food Industry Center
UNIVERSITY OF MINNESOTA

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Food Safety in a Global Market: A Serious Matter of Breaking Trust

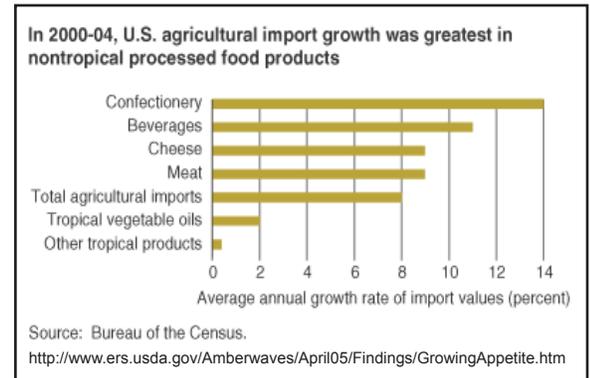
By Jean Kinsey, Co-Director

Consumers' confidence in the safety of their food supply is in trouble. In an August 2005 survey of U.S. consumers conducted by TFIC, we found that 64% of consumers were confident that the food they ate was safe. In 2006, the Food Marketing Institute's survey of consumer trends found that 82% of consumers were somewhat or completely confident in the safety of supermarket food. That percent dropped to 66% in 2007. Why the fall off?

Foodborne illnesses from naturally occurring microtoxins (except for salmonella) actually declined almost 20% during the 1990's, but a confluence of events with widespread media coverage has alerted consumers to be more suspicious about the safety of the foods they eat. Well known food safety events include foodborne illnesses and deaths from *E. coli* in raw spinach and hamburger, salmonella in peanut butter, melamine (plastics) and cyanuric acid added to wheat gluten from China found in multiple brands of pet food, and mislabeled monkfish with a deadly toxin (tetrodotoxin) associated with pufferfish. In the pharmaceutical trade, there was lethal diethylene glycol (antifreeze) substituted for glycerin in medicines and toothpaste. Are these rare and unusual events? One can only hope so.

Changes in our food distribution system make it harder to monitor and, apparently, more vulnerable to abuse. An efficient food distribution system moves fresh produce from California to numerous stores on the east coast in 2-3 days. The food is consumed before tests on the original product can be concluded. A global supply of food and ingredients relies on foreign food safety regulations and enforcement that may be less stringent than in the U.S. Meanwhile, border inspections have declined. Sampling and testing food imports are a lot like drinking from the proverbial fire hose. You simply cannot inspect "in" safety. The volume of food imports increases

about 1% per year with a value of more than \$58 billion in 2005. Most of the import growth is in foods and beverages processed elsewhere (see chart below). At the same time funding for food safety in the Food and Drug Administration (FDA), who is responsible for monitoring 80% of the food supply, is down to \$10.6 million, only one third of the funds allocated for federal food safety regulation. FDA's border inspections of food have declined from 8% in 1992 to less than 1% today.



When consumers lose trust in the integrity of their food, especially in the national and global brands, they look to more local brands and to self-help remedies. When they question the ability of government agencies to ensure food safety they start to demand more information (i.e. country of origin labeling) and they are more cautious about accepting new technology (i.e. no genetically modified ingredients in food). We have had the privilege of consuming safe food in the U.S. We must regain that trust for the health of consumers and the health of the food industry.

Save the Date...

The Future and Practice of Healthy Foods
October 1, 2007

2008 TFIC Spring Conference
March 27, 2008

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SYSCO

Co-Director's Column

The Center's Colloquium on Food, Technology, and Individual Privacy held May 16th focused on the impact of Radio Frequency Identification (RFID) technology on the food industry. There was general agreement that consumer privacy issues are unlikely to arise until RFID tags are placed on individual retail products.

A fascinating discussion developed in the session on Privacy and Law. From his experience in the consumer protection division of the Minnesota Attorney General's office, Prentiss Cox from the University of Minnesota Law School recommended a voluntary policy of disclosure by companies regarding their use of RFID. Such a policy could help companies avoid unwarranted consumer anxiety concerning the technology and avoid being perceived as harming their consumers in any way. Mr. Cox also suggested that people who develop a technology typically see its benefits, but may not perceive the problems as seen by consumers. He argued that industry participation in the regulation process is better than no regulation, surely leading to greater privacy problems.

Professor William McGeveran, also from the



University of Minnesota Law School, laid out a number of information management aspects of RFID technology that might be of future concern. For example, issues could arise regarding the potential to aggregate

information, linking information on the chip with outside personal consumer information. In addition, the scope of the technology's use and its potential affect on consumers should be made clear. RFID tags can be read without the consumer's knowledge, unlike the UPC (standard bar) code. Some of the principles that Mr. McGeveran proposed in his discussion to guide company behavior included practices of transparency and consumer consent. Mr. McGeveran noted maintaining data security will be especially important. Past publicized breaches of personal information security have been so wide-spread that data security will be a very sensitive issue. Current laws that relate to RFID technology use are those that address deceptive practices and consumer privacy concerns.

The colloquium's interdisciplinary approach insightfully explored the benefits and potential pitfalls of RFID use in the food industry, while providing forethought into the implementation of increased technology in the food industry.

First Impressions: U of M Students Attend NGA and FMI Conventions

Through generous trade association support, The Food Industry Center was able to send four students to trade association conventions this academic year. "Convention participation provides a window to the industry that can not be captured in the classroom," said Jon Seltzer, TFIC Industry Consultant and Adjunct Lecturer at the Carlson School of Management. "The Food Industry Center has brought students to conventions for several years and the students speak highly of the experience."

Ryan Lynch, a student in the Applied Economics Department, and Ben Stevens, a student at the Carlson School of Management, both attended the National Grocers Association convention in Las Vegas this past February. In May, Dan Peterson, a student in the Applied Economics department, and Kevin Rice from the Carlson School of Management both attended the Food Marketing

Institute show in Chicago. These University students joined others from schools around the country and worked as interns at the convention sites.

"The best thing about the convention experience was seeing the new products that companies plan to bring to market soon, according to Kevin Rice, an intern with Design Service Group at SUPERVALU. He went on to say, "attending the convention broadened my awareness of the vast number of companies and technologies that are involved in the industry. The advice that I would give to next year's interns would be to make sure to network with as many people as they can."



Peterson and Rice with Jean Kinsey at FMI Convention

The Food Industry Center

TFIC Hosts *Food, Technology, and Individual Privacy Colloquium*

On May 16th, TFIC presented *Food, Technology and Individual Privacy*, a colloquium focusing on RFID (“radio frequency identification”) technology use on consumer products in the food industry and potential individual privacy complications. The event was generously sponsored by a grant from the University of Minnesota’s Consortium on Law and Values in Health, Environment & the Life Sciences.

The colloquium was organized into three sessions: *RFID Technology and the Business of Food*; *Dealing with Privacy: Insights from Marketing Survey Research*; and *Privacy & Law, The Road So Far Ahead*.

Dr. Ted Labuza, from the Department of Food Science and Nutrition, discussed the technical details of RFID technology, where it is now, and what it can do in the future. Next, **Dr. Fred Riggins** from the Carlson School of Management discussed the food industry’s attitude toward RFID technology, including the hurdles that must be overcome before the wide-spread adoption of RFID use. **Diane Bowers**, President of the Council of American Survey Research Organizations, addressed the second session by

discussing the consumer research industry, consumers and their privacy needs, and CASRO’s efforts to protect the privacy of consumers surveyed.

As discussed in the Co-Director’s column, the final session focused on the privacy and legal implications for RFID technology. **Professors Prentiss Cox** and **William McGeveran** from the University of Minnesota Law School provided current and past cases and theory that apply to research technology such as RFID. Their discussion demonstrated the benefit to companies by being proactive with consumer privacy policies and regulation.

A summary of the colloquium discussion will be published on The Food Industry Center’s Website this June.



Diane Bowers, CASRO and Dennis Degeneffe, TFIC at the “Food, Technology, and Individual Privacy” Colloquium

The Food Industry Center Hosts its First Annual Spring Conference

More than 150 industry, alumni, faculty and student participants joined The University of Minnesota’s Food Industry Center at the 2007 Spring Conference on March 22nd. This year’s theme was *New Products, New Opportunities*.

“The Conference underscored the land-grant mission of the University to reach out and connect the school to industry and alumni and to serve as a bridge for students looking for rewarding careers,” said **Jean Kinsey**, Professor of Applied Economics and Center Co-Director.

Dean Allen Levine from the College of Food, Agricultural, and Natural Resource Sciences and **Professors Brian Buhr** from Applied Economics and

George John from the Carlson School of Management each looked at new products and new opportunities from their respective disciplines. Starting with a cooler of meat product, Buhr first summarized new product development in the meat industry and then posed the question - is the

supply chain ready to deliver on the promise genetic profiling offers? Next, George John explored some of the new research at the Carlson School on the implications of private label for manufacturers as well as retailers and ingredient branding/co-branding. Allen Levine closed the formal presentations by looking at advertising, product development and the obesity challenge, and why we can’t stop eating.

The break following the formal presentations provided ample time for networking opportunity and information exchange between U of M students, graduates and others in the food industry. The conference concluded with a panel discussion by the presenters and some industry practitioners discussing the day’s presentations and relating them to industry specific examples. The corporate sponsors CHS, Inc., Cub Foods/SUPERVALU, Nash Finch Co., and SYSCO Minnesota set-up informational booths that students toured to learn about full-time, summer and part-time employment.

“It was an excellent first conference to bring students together with the industry at the University,” added Ben Senauer, Professor of Applied Economics and Co-Director of The Food Industry Center. “The strong turnout showed the value industry, students, alumni and faculty see in sessions like this, plans are well underway for next year.”

The Food Industry Center has plans to hold its 2nd Annual Spring Conference on March 28, 2008.



Katya Kaynts and Fang Wu, U of M students, and Sarah Wangler from Green Giant Fresh at the Spring Conference

Did You Know?

Irradiated Mangos from India!

India and the United States began talking about shipping mangoes 17 years ago. Now irradiated Indian mangoes provide additional choices for U.S. consumers in today's global marketplace. ***"This is a significant milestone that paves the way for the future use of irradiation technology to protect against the introduction of plant pests."*** Mike Johanns, *US Secretary of Agriculture* (Washington Post, 5/9/07)

Another Use for RFID Tags

A sushi restaurant tracks how long a piece of food has been sitting on a conveyor belt by placing an RFID (radio frequency identification tag) on the bottom of the plate. If it rotates more than 90 minutes it is pulled for food safety reasons. (R. Malone, *Forbes*, 5/23/07)

Rapid Test for Salmonella

Danish Scientists have developed a 12 hour detection method for Salmonella in meat and poultry. Previously, tests would take up to five days resulting in costly delays. In the European Union, studies have found that salmonella is found in one in four broiler chickens,

a common source of foodborne illness. (G. Reynolds, <http://www.foodqualitynews.com> 5/18/07)

Low Calorie Food Better than Low Calorie Diets

This title may seem like an obvious fact, but a new study at Penn State University found that building low calorie foods like fruits and vegetables into a diet help men and women feel fuller, provide more nutrients per ounce and help people to stick to diets longer. (*American Journal of Clinical Nutrition*, May 2007)

Consumer Trends from FMI, 2007:

*Consumers are buying more of their food from retail stores including meals ready to eat. Sixty-nine percent say they are cooking more and eating out less. It is believed that this is being driven by high costs and a belief that food eaten at home is healthier than food eaten in a restaurant.

* Households spend an average of \$93.20 per week on food to take home. The range is between \$62 for a single person to \$131 for a family of four.

*Shoppers now go to a grocery store only 1.9 times per week, down from 2.1 times in 2006.

No Trans-fats?

McDonald's announced that it will expand its non transfat cooking oil to all 13,700 restaurants within a year from May 2007. It joins many other quick service companies in this move (Wendy's, Starbucks, Yum Brands [Pizza Hut, Taco Bell, KFC]). (C. Zappone, *CNNmoney.com*, 5/25/07)

Quiz:

1. The most popular hard liquor drink in the U.S. in 2006 with 27% of the market (scotch, rum, vodka)
2. The number of single serving containers of bottled water consumed a year in the U.S. (30 billion, 100 million, 50 billion)
3. The percent of imported food inspected by the food and Drug Administration. (1%,3%,8%)
4. Nutrition Assistance Programs i.e. WIC, Food Stamps comprise ___% of the budgetary expenditures of the United State Department of Agriculture. (20%, 75%, 55%)
5. A four person household with no

Answers: 1. vodka 2. 30 billion 3. 1% 4. 55% 5. \$506

For copies of past event agendas/speaker biographies, event summaries, and presentations please visit the Center's Website at:

<http://foodindustrycenter.umn.edu/Workshops.html>

You will find:

- *Terrorism, Pandemics, and Natural Disasters: Food Supply Chain Preparedness, Response and Recovery* Symposium Summary
<http://foodindustrycenter.umn.edu/vd/Documents/disasterresponsesummary.pdf>

*A CDR of the Symposium presentations is also available

- Agendas & Bios for the 2007 Spring Conference and *Food, Technology and Individual Privacy Colloquium*

If you wish to be notified of future Center events, sign up on our website at http://foodindustrycenter.umn.edu/Join_Our_Email_List.html or by phone at (612) 625-7019.

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