



## GAZETTE

**Monday, January 29, 2018**

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### **The Impact of FDA's Final Nutrition Labeling Regulations**

Presented by Martin Mitchell, Chairman of the Board of Certified Laboratories, Inc.

FDA has published its long awaited nutritional labeling regulations. These new regulations not only transform the way nutrition information will appear on the label, they also impact the claims that can be made for certain foods.

The final rule revising the Nutrition and Supplement Facts Labels (1) updates the list of nutrients that are required or permitted to be declared; (2) provides updated Daily Reference Values and Reference Daily Intakes; (3) revises the format and appearance of the Nutrition and Supplement Facts labels. In addition the rule now provides a new definition for "dietary fiber."

The final rule revising serving sizes (1) changes Reference Amounts Customarily Consumed (RACCs) for certain foods; (2) creates new reference amount categories and reference amounts; (3) amends the definition of a single-serving container; and (4) requires dual column nutrition labeling for certain food containers.

This presentation will review the changes set forth by these new regulations and the impact these changes will have on your products.

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## **From The Chair:**

Happy New Year! The Executive Board and I, wishes everyone a happy and healthy year ahead.

Please join us on January 29th for Martin Mitchell Chairman of the Board of Certified Laboratories, who will speak on the Impact of the FDA's Final Nutritional Labeling Regulations.

We will be having other interesting speaker for our April and June meetings, so watch for details to come.

See you all on January 29th.

Joe Minella, Chair

## **Upcoming meetings for 2018:**

**April 9, 2018**

**June 4, 2018**

**Speakers and venues to be determined; watch the LIIFT Gazette for information**

**check out our website: [www.longislandift.org](http://www.longislandift.org)**

## **MEETING PLACE & DIRECTIONS**

**Date: Monday, January 29, 2018**

**Place: The Inn at New Hyde Park  
214 Jericho Tpk.  
New Hyde Park, N.Y. 11040**

**Directions: go to [www.innatnhp.com](http://www.innatnhp.com)**

**Times: 6:00PM-7:00PM, cash bar, networking  
7:00PM- 7:45 PM, dinner  
7:45PM- speaker**

**Price: \$40.00 per person with reservation  
\$50.00 per person at the door**

**Reservations: Carol Zamojcin @ 516-352-5772,  
anytime before Fri. Jan.27th**

## FOOD FRAUD TAKES CENTER STAGE

Better detection tools provide the means to identify misrepresented products and ingredients.

By Kevin T. Higgins, Managing Editor  
*Food Processing*, May 2017

The extent of fraud in the food industry is coming into focus. And it's a particularly ugly sight. It has lurked in the background for years, but the internationalization of raw materials and finished goods is putting the extent of the problem front and center and causing alarm among many food and beverage professionals.

Security consultants anticipated a business bonanza from the Food Safety Modernization Act (FSMA), expecting the preventive controls rules to spur huge investments in physical security. That didn't happen; food plants already had tightened facility access in the wake of the Bioterrorism Act of 2002. But FSMA regulation significantly stiffened companies' oversight responsibilities of their suppliers, and that in turn has trained a harsh light on economically motivated adulteration, a euphemism for fraud.

Until recently, food fraud was separate and distinct from food safety but the two are merging. Melamine in milk powder from China that poisoned U.S. pets and contaminated European chocolates helped link them, and the global nature of the supply chain strips any pretense that fraud events are just local or regional problems.

Counterfeiting is a high-profile form of fraud. Geoffrey Potter of the anti-counterfeiting practice at law firm Patterson Belknap Webb & Tyler LLP ([www.pbwt.com](http://www.pbwt.com)) in New York recently litigated what is believed to be the first U.S.-based food counterfeiting case. As lead counsel for 5-Hour Energy's parent, Living Essentials, he also assisted federal prosecutors in criminal investigation against the ringleaders.

The scheme had its origins eight years ago, when some of the defendants made a wholesale purchase of 350,000 bottles with Spanish-language labels from Living Essentials, purportedly intending to sell them in Mexico. Instead, they were redirected to California, relabeled with English-language labels and sold at a

retail at a deep discount.

The scheme emboldened the conspirators to cut out the middleman and fill bottles with their own home-made caffeinated energy drink. Bearing labeling that Potter termed "very high quality," the bottles entered distribution channels as diverted products or returns.

Multiple companies supplied millions of bottles, shrink sleeves and packaging equipment to a clandestine warehouse in southern California where day laborers conducted manufacturing operations 24 hours a day in 50-worker shifts. "When we seized the warehouse, they were producing about 1.5 million bottles a month," Potter reports. "There was so much money involved, they had to use shopping bags to pass it out."

The owner of Flexopack, an Alto Loma, Calif., manufacturer of shrink sleeves and pressure-sensitive labels, was the only supplier among the 11 individual named in criminal indictments. The rest were among the 70 businesses ordered to pay a total of \$20 million in civil judgements.

Potter was most offended by Walid "Wally" Jamil who refused to provide lot codes that could have limited the scope of 5-Hour Energy recalls that began in November 2012. Describing him as "a real tough cookie" and "a Soprano wannabe," Potter says it wasn't Jamil's first foray into food fraud. An earlier counterfeiting and repackaging scam involving Pillsbury products and the sweeteners Equal, Splenda and Truvia unraveled when the Michigan Dept. of Agriculture investigated a rat infestation complaint.

The rodents were attracted by raw materials for counterfeit packages of Uncle Ben's Rice. No criminal or civil charges were placed. But for a robust pest control program, the counterfeiting may have continued undetected.

### Tools of detection

The energy drink scheme began to unravel when a Living Essentials sales rep, curious as to why a retail customer wasn't placing orders with him but still had 5-hour Energy on the shelf, purchased some of the bogus products and mailed it to headquarters for analysis.

The results triggered the recall and subsequent investigation.

“The highest quality manufacturers are very vigilant when the product is in their facilities or their warehouses,” Potter observes, “but they need a way to monitor what is being sold where and for how much.” When an individual calls a company’s consumer hot line, Potter advises getting the package in house to determine if it is legitimate or counterfeit. Regardless if the contents were assembled in a rogue plant in Michigan or Moldavia, the packaging likely will be high quality and barely distinguishable from the real thing.

Content testing can be a tool or a weapon. When used internally on incoming ingredients and materials, it can head off fraud before a public embarrassment occurs while also ensuing FSMA compliance. If testing is commissioned by someone else and performed at an independent lab, the findings can result in serious brand damage.

The means of testing are becoming more numerous, less expensive and more easily applied. Isotope ratio mass spectrometry and immediate constituent analysis may be too advanced and expensive for a food or beverage lab, but alternative technologies and even existing pathogen-detection equipment can spot adulterants, notes Deepali Mohindra senior market development manager for food and beverage for Thermo Fisher Scientific’s (www.thermofisher.com) U.K. office.

“If we are talking about an affordable solution, it would be the liquid chromatography (LC) system, which is still the workhorse for food and beverage labs,” according to Mohindra. “A LC system paired with a specialty detector like the charge aerosol detector can be used to detect food and beverage fraud.”

Instant Labs (instantlabs.com), a molecular diagnostic device company based in Baltimore, Md., recently introduced a real-time

polymerase chain reaction (PCR) system that can detect DNA fragments in a sample in less than two hours. Pathogen detection likely will be the machine’s primary use, believes President Niel Sharma, but he anticipates growing use in fraud detection, particularly for highly processed products.

Selling the test kits, not the machine itself, is how Instant Labs expects to make money. The firm currently provides 11 different tests for DNA that is benign but not necessarily part of a pure product. The kits are from Tru-ID Ltd. (www.tru-id.ca) Guelph, Ontario. Geneticist Robert Hanner, who serves as Tru-ID’s chief technology officer, is involved in building a DNA reference sequencing library that has established 10,000 DNA bar codes for 10,000 fish species alone.

A pork DNA test kit is an early favorite of Instant Labs’ customers. Inspectors for halal certified foods are early adopters. “Kosher foods have well established networks, so we haven’t focused on those inspections,” says Sharma, but “there are more players and opportunities for fraud with halal.

He foresees potential use by regulators in foreign countries. Beef DNA detection for products shipped to India and pork DNA tests for exports to Muslim-majority countries are obvious examples. An overseas shipment by one nutraceutical client already was rejected when it arrived at its destination and pork DNA was found.

While DNA testing is destined to play an expanding role in the fight against food fraud, it is useless when it comes to chemical testing. That requires technology like isotope ratio mass spectrometry, which is considerably more expensive and requires higher technical skills to apply.

### **Think fraud**

Major food companies with hundreds or thousands of suppliers and high-profile brands are Instant Labs’ most enthusiastic customers.

Brand protection requires more than spot testing, however. Several of the world's largest brand owners have banded together to form the MSU Food Fraud Think Tank, under the auspices of John Spink, as assistant professor at Michigan State University and director of the school's Food Fraud Initiative ([foodfraud.msu.edu](http://foodfraud.msu.edu)).

"Food fraud and intentional adulteration are things large companies have been in conversations about for the last 5 years," notes Think Tank member Mike Roback, Cargill Inc.'s vice president of corporate food safety, quality and regulation. "This is an area where, if something happens, it undermines trust and integrity in the food system."

Roback's counterparts from Danone, Mars, Mondelez, Hershey and supermarket chain Wegmans are founding members of the group, which hopes to develop best practices and standard operation procedures for fraud risk assessment. "There are lots of one-off projects and meetings about fraud prevention," he says, but a more organized approach is needed. The group hopes to identify gaps in existing vulnerability assessments and make recommendations to the Global Food Safety Initiative (GFSI) on ways to tighten protocols.

Those recommendations will carry considerable weight: Roback chairs GFSI's board, and GFSI sets the requirements for food safety certification programs such as SQF, BRC, and FSSC 22000. Inspectors who audit to those standards are beginning to evaluate the fraud prevention programs at food plants. There's a strong likelihood that fraud will rise to the status of biological and chemical threats to food safety. The Think Tank's goal is "to provide solid guidance to the industry when they are doing their risk assessments," says Roback.

"FSMA doesn't require anything but hold people accountable for everything," observes Spink. Mondelez, for example, deals with more than 3,000 suppliers, making it impossible to create an air-tight fraud defense, he adds. The only realistic approach is to develop a strategy that prioritizes the likelihood of criminal activity and deploy limited resources to manage the greatest vulnerabilities.

"You can't test everything in the supply chain: understates Karen Everstine, science liaison-food standard at the U.S. Pharmacopoeial Convention, Rockville, Md.. "But fraud history is a powerful tool in mitigating risk."

USP recently released an updated version of its Food Fraud Database ([www.foodfraud.org](http://www.foodfraud.org)) a collection of incidence reports, surveillance records and analytical methods for thousands of ingredients. Given their value and the importance of color and appearance, spices are one of the red-flag categories in the database, but the biggest problem area is dairy ingredients.

By cataloguing the vulnerability of individual ingredients, now they might be adulterated and what types of tests can identify those adulterants, the database provides a roadmap to fraud prevention, "Fraud history is a powerful tool," Everstine points out.

"In my experience, virtually everything from soy sauce to ketchup is counterfeited," says Patterson Belknap's Potter. Most of the knock-offs are sold in foreign countries or in sketchy channels like flea markets. Counterfeiting is high profile, but packaging is the only real distinction between those finished goods and a seasoning with a forbidden dye. And it's a growing problem in an increasingly interconnected industry.

It's a particularly sensitive issue for brand owners like Cargill which has 1,500 plants in 70 countries. Managing the risk will require a cooperative effort throughout the global supply chain.

## **About Martin Mitchell**

Martin Mitchell is Chairman of the Board of Certified Laboratories, Inc., with locations in New York, Southern and Northern California, and Chicago. Certified Laboratories is an independent laboratory specializing in microbiological and chemical analyses of seafood, beverages, spices and other products. The Certified Food Safety Center specializes in Validations, Challenge Studies and Consulting. He manages a laboratory staff of over 250 people, provides extensive client consultation and is a lecturer on various technical subjects.

Martin is a member of the National Seasoning Manufacturers Association (NSMA), American Spice Trade Association (ASTA) Food Safety Committee and has served as their chairman. He also has been the Technical Director of the Refrigerated Foods Association (RFA) for over 35 years. He has been a Director of the American Council of Independent Laboratories (ACIL) and chair of their Food Section as well as past-chair of the IFT Refrigerated and Frozen Foods Division.

His technical expertise includes all aspects of food processing, and food safety in the Spice, Refrigerated Foods and Seafood Industry. His expertise includes food import regulations and other regulatory areas. He has authored over 20 publications and frequently speaks on subjects in his areas of expertise.





