

FOOD SAFETY: **on the road to a brighter future**

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The safest food supply can be safer!

BY *Andy Hanacek, editor*



The content in this special publication brings together some of the experts in food safety to highlight concepts and strategies propelling innovation in the food-safety arena today. Without a doubt, the U.S. food industry has come a long way over the last century-plus in creating what many have called the safest food supply in the world. However, as technology has improved, it has turned a finer-tuned microscope on issues that maybe would have gone unnoticed in

the past. The proverbial haystack in which the needle resides has become smaller and worse at concealing that needle. Additionally, the penalties have become more impactful — whether they are doled out in the court of law or court of consumer purchase power. As consumers and legislators clamor to know more about food, processors need to remember that there's always something to learn; always a potentially better way to do things; and always a consumer to feed — and protect.

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Food safety: the greatest cause

BY Mark A. Duffy, *Universal Pasteurization & Universal Cold Storage*

Throughout my career, I have had the privilege to work at some world-class companies and serve talented people and great customers.

One common denominator throughout this memorable journey has been each company's unyielding commitment to food safety.

Today, I view it as extremely fitting that I have the good fortune of leading Universal Pasteurization and Universal Cold Storage, whose business model is focused on helping ensure the foods and beverages our loved ones (both human and pet) consume are safe.

Here's a quote from an attendee at the High Pressure Processing (HPP) Summit that Universal hosted in October 2016 that has put things in perspective for me:

"The thing that keeps me up at night is someone getting sick from consuming one of our products and the irreparable damage that would do to our good name and reputation, let alone the financial stability of our company."

Anybody that has been directly involved in a product recall knows how crippling it can be to an organization, especially if the recall included illness of consumers.

So, as a father, husband, son, brother, uncle and friend, I hope all of you who read this immediately collaborate with your teams, executive leadership of your company, regulatory agencies and suppliers

to review your food safety processes and protocols. We all must be vigilant with our commitment and investments to ensure our food safety systems both comply with regulations and help ensure the good health of consumers.

If you can look in the mirror and know you are doing everything within your sphere of influence to fortify and continually improve your food safety systems, then you and your stakeholders have a better chance of sleeping comfortably at night.

Thank you for sharing a conviction to the greater cause of food safety. ●

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Unsolved mysteries: food safety's 'next big thing'

BY Shawn Stevens, Food Industry Counsel, LLC

During the 2017 Food Safety Summit, I was honored to participate on a panel with Matthew Wise from CDC and attorney Bill Marler discussing “Case Studies from Recent Foodborne Illness Outbreaks that Blindsided Us All.”

find a niche in the food-processing environment and find their way into the products. In the past, the CDC’s detection

During the session, our panel discussed the recent outbreaks involving Blue Bell ice cream, General Mills flour and I.M. Healthy soy nut butter, carefully summarizing the chronology of the investigations and analyzing the causes of the outbreaks.

In each of these cases, we agreed that the outbreaks likely would not have been solved but for the use of new outbreak investigational tools and techniques used by CDC and FDA. Thus, the “next big thing” in food safety will be, in my opinion, the government’s new ability, for the first time

ever, to solve outbreaks that have, for years, eluded detection.

Food manufacturing is a risky business. Every year, multiple companies are forced out of business because of a food-safety issue they didn’t know existed or they never saw coming. In each of these cases, persistent bacteria were able to





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BECOME CONTAMINATED & CAUSED ILLNESS

at some point in the past, or will at some point in the future.

techniques did not have enough resolution to piece together outbreaks spanning long periods of time but involving relatively low numbers of illnesses.

Now, through the use of whole genome sequencing (WGS), which has much higher resolution when compared against previous outbreak detection technologies, CDC is now able to detect correlations between case patients and products that were never before possible.

CDC's efforts in this regard are also aided by new investigational techniques employed by FDA. Now, during routine inspections of food facilities, FDA for the first time ever is taking an average of 150 microbiological swabs of the food-

processing environment in an effort to find pathogens in those facilities. The agency will sample incoming ingredients, as well as food-processing equipment, floors, drains and finished products. If any of those samples are positive, the agency will use WGS to see if they match any human illnesses in the CDC's database. If so, then the agencies will have solved yet another unsolved outbreak.

Even if a positive sample from a food facility does not match any human illness, the strain cultured from that facility will remain in the CDC's database forever. Thus, if two weeks, two months or two years in the future, someone becomes sick and the strain from their illness

matches the strain from that food facility, CDC and FDA will be able to immediately solve that case. And, here too, an outbreak that may have avoided detection in the past will be detected in the future.

In this new day and age, one thing is becoming quite certain. If you produce food, there is a chance that your products may have become contaminated and caused illness at some point in the past, or will at some point in the future. Given CDC's and FDA's new investigational techniques and technologies, there is also an increased chance that the cause of that illness will be detected. As the next big thing in food safety plays itself out, take steps now to eliminate any contamination from your facility and ensure that your company doesn't become the "next big name" in the news. ●

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Protecting consumers ... sometimes from themselves

BY *Gina R. (Nicholson) Kramer, RS/REHS, Savour Food Safety International, Inc.*

It takes the entire food community to work together to protect the food that consumers buy, prepare and eat every day.

Manufacturers and retailers work closely together to provide food-safety information such as consumer advisories, safe food handling and cooking instructions printed on packaging. CDC, FDA and USDA extend advisories along with regulations to help protect the consumer.

Despite all this effort, we continue to see foodborne illness outbreaks occurring. Seeking other forms of collaboration to protect the consumer is important as consumers continue to ignore this important health information.

Technology

Food safety continues to be a key issue,

with the greatest challenge relative to developing the technology required to keep the world food supply sufficient and safe. Consumers will need new skills and equipment in their homes while producers, processors, distributors and retailers will require new technology to keep food safe from harvest through consumer purchase.

Consumers expect total transparency of their food throughout the entire supply chain. This expectation has created the need for technology that has the ability to monitor, track and trace with a robust recall program that provides microscopic detail at the store level. The amount of data that needs to be collected, analyzed

and tracked requires complex systems. However, the user interface needs to be user-friendly with the look and feel of popular social media sites.

Communication between manufacturers and retailers is important in protecting the consumer's health and safety. Today's communication focuses on food-safety performance to regulatory compliance, third-party audits and GFSI certification requirements through approved scheme standards.

Data analytics of performance on audits provide the retailer and manufacturer with the ability to trend and even predict deviations that might be occurring or are going to occur in the food-processing environment. Food companies can then conduct re-analysis of food-safety procedures and make improvements to prevent possible contamination.



This is a solid foundation to protect the food supply, but it is often not enough to protect the consumer from themselves.

Food trends

Consumer eating trends change. Retailers track food trends, flavor trends and eating habits like bloodhounds. This information is essential to marketers and brand managers, but it also needs to be communicated to food-safety and quality-assurance (FSQA) departments in every food company, especially manufacturers. The intended use and consumption of food changes with consumer trends. Retailers need to share with manufacturers these new trends so that hazard analysis and risk-based preventive controls can be updated to protect consumers from their own habits of using products without following intended-use instructions.

An example comes quickly to mind: the 2016 recall and *Listeria* outbreak linked to frozen produce. This devastating event cost the industry financially and decreased consumer trust in several brands, but it also caused the frozen produce industry to recognize how the consumer did not fol-

... the consumer **DID NOT FOLLOW INSTRUCTIONS** for the way the product was intended to be used.

low instructions for the way the product was intended to be used. Despite the fact that product's intended-use instructions — further heat treatment to a temperature of 165 F before consumption — were clearly stated on packaging, consumers were adding frozen peas, carrots, spinach and other veggies to their smoothies.

Smoothies made with fresh produce have been popular with consumers for more than five years, as they provide a way for a person to easily add fresh produce to the diet and benefit from the natural intake of vitamins and minerals. Retail marketers and public-relations departments saw this trend blossom with the growth of social media. Communicating these consumption and marketing trends to manufacturers, especially their FSQA departments, would have been crucial to preventing the outbreak and large recall.

Historical analysis of consumer behav-

ior shows that consumer food trends will dictate the intended use of foods consumed. Therefore, FSQA departments should change food-safety processes based on actual or anticipated use of products, as opposed to how the manufacturer intends for the foods to be used.

This can be accomplished through regular communication between retailers and manufacturers on consumer's preparation trends. Using this information as part of the hazard analysis process is crucial to protecting every company's brand — and protecting consumers from themselves. ●

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Building corporate food safety culture

How to foster and grow a corporate culture of food safety – and then make sure it remains the top priority.

BY *Tim Biela, contributing writer*

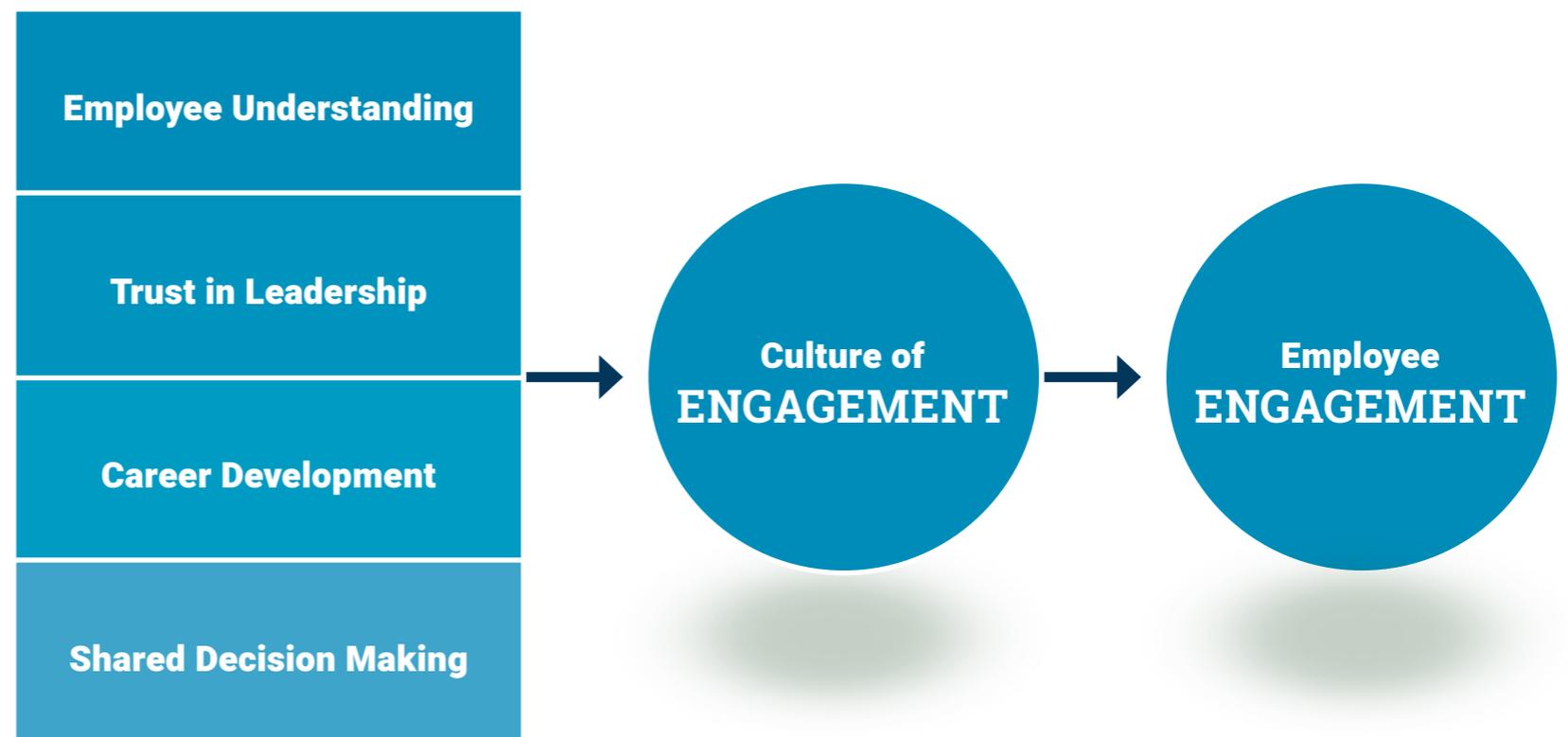
How many of your employees are really engaged in your organization, its' goals and objectives? According to the Northeast Human Resources Association, if you believe it is about half, you may be overestimating the number! That begs the next question: How do you get employees engaged in your organization?

Employee engagement

The concept of employee engagement, what drives it and how to improve it within an organization became a hot topic in business literature in the 1990s, and there are some accepted practices and behaviors companies can foster to improve employee engagement.

Some drivers of engagement are:

- **Employee perceptions of job importance** – Employees should have a clearly defined understanding of the importance of their roles and how they



impact the organization's success. For food safety, that means they must know how their job impacts the finished product and what steps or actions are required of them while working to identify, react and control food-safety risks.

- **Employee clarity of job expectations** – Expectations must be clear, communicated and agreed upon.
- **Career advancement / improvement opportunities** – Employees must have opportunities for career growth and

CORPORATE CULTURE

advancement, and companies should create a system for improvement opportunities and share the savings with employees.

- **Regular feedback and dialogue with superiors** — Employee communication is important at all levels all the time. Continuous feedback helps to improve understanding and allows for interactions which foster open communications and discussion.
- **Quality of working relationships with peers, superiors and subordinates** — Employee performance and engagement are directly related to how an employee feels about his or her boss. Relationships within the organization must be monitored and improved whenever possible, removing barriers for open communications.
- **Perceptions of the values of the organization** — Does management really care? Is it committed to the expectations defined for its employees? This is the most important factor when it comes to employee engagement. “Walk the talk” is the best way to verbalize the requirement for management.

- **Effective internal employee communications** — Do you convey a clear description of “what’s going on?” What do you talk about? What’s on your company message boards? What’s really important to you? How do you get that message out to your employees!

Culture of engagement — food safety

One could easily argue about the order of the lists above and which of these categories is more important than the other when it comes to corporate culture, and even more importantly to the corporate food safety culture. If you are assigned within your organization to define, educate and foster the corporate food safety culture, you would have a complete and accurate assessment of the current developmental level of each of these categories *before* implementing strategies or plans for improvement.

During the initial assessment you might discover a level of inherent mistrust of the company leadership, which would inevitably alter your approach and define or redefine the order in which you attack each

one of these areas to foster and improve the organizational food safety culture.

Initial steps

Before you begin to impact such an important aspect as food safety, you must understand the actual food safety culture of that organization. This includes understanding what senior managers know and how they feel about the issue, and how committed they are to taking the necessary actions to insure food safety. Additional steps are listed below:

- **Gauge employees’ food-safety knowledge** — You must understand what employees in all areas know about the products manufactured and what critical factors must be managed at all times to insure those products are safely produced, stored and delivered to your customers.
- **Gap analysis to compare what they know, with what you need them to know** — Having a gap analysis down on paper for every employee allows you to identify specific topics for educating them in particular jobs, and also to insure they are prepared if required



to work in other areas of the facility, by cross-training employees in advance.

- **Defining actions to get employees where you need them to be** — Define the tools and actions that will be taken to educate employees, what the expectations are for all positions in the manufacturing facility, and who will perform the training and when. Then, verify their understanding of those expectations during training. Training should be documented and periodically reinforced through follow-up training. Ongoing verification through observation on the process floor by managers and supervisors reinforces training.

Changing a culture

State of awareness — In order to change a culture, one must create a “State of Awareness.” This means communicating your mission and vision as it directly relates to food safety. Communication must come from the top, be issued with clarity and be consistent at all times.

Build an informed workplace — Next you have to build an “informed” workplace. That means educating every employee in

every position, and continually cascading the same mission and vision communications. Listen to feedback and act on it to provide employees with the tools they need to perform their roles. Leaders at all levels in the organization must be visible, energized and supportive of the objectives of the mission and vision. They must be available at all times and open to input, suggestions and any feedback from all employees.

Develop two-way communications — Most organizations do well communicating down from management but overlook the mechanisms for employees to communicate up on a regular basis. This means the food safety action plan must address this shortcoming and look for methods to foster communications up. Helpful methods used in the past such as “town meetings” or surveys can provide important feedback to enhance State of Awareness and reinforce the Mission and Vision. Senior management must define the expectations for other managers and supervisors, adhering to and reinforcing the food safety mission and vision are required at all times, under all circumstances.

Trust is paramount

One of the more challenging aspects of today’s business environment is developing and maintaining trust. Too many employees have had bad experiences with bad company cultures and have little to no trust for their employers or management teams. Therefore, it is imperative to understand when trying to manage a food safety plan that this can be one of the challenges to overcome.

Building trust is a slow process. It is developed over time by developing a clear vision of the future, communicating that vision and reinforcing that vision by the actions of the management team. Trust can be shattered when a company changes directions or breaks promises to employees. Therefore, management must adhere to the defined food safety mission and vision at all times, and continually cascade the message of food safety. ●

Tim Biela is an independent industry consultant, and the former senior vice president of operations and chief food safety officer for AFA Foods.





Partners in education, advancement

BY David Seckman, Food Processing Suppliers Association

Advancements in the food-processing industry and new food-safety regulations make it critical for food processors to understand regulations from USDA and FDA, biodefense and biosecurity as well as updates on food allergen control in processing. The Food Processing Suppliers Association (FPSA) has developed a new partnership with the Food Safety Summit who will provide food-safety education at PROCESS EXPO in September. This gives processors more reasons to attend and bring teams of employees, meet with industry experts and find equipment and products to help them comply with new regulations. Food safety has been identified as a key challenge for FPSA members and their customers, and PROCESS EXPO is meeting this need by providing the best quality education on the subject matter.



INDUSTRY COLLABORATION

Some of the most pressing food-safety issues facing food processors include:

- implementation and enforcement of the Food Safety Modernization Act (FSMA),
- the need for Hazard Analysis Critical Control Point (HACCP) certification training,
- further understanding of the updates to 3-A Sanitary Standards,
- the impact of labeling laws, and
- trends in the use of natural ingredients.

It's important for FPSA to help our processing partners focus on food safety, which continues to be a main concern for the industry and on the forefront on everyone's mind. As newer technologies are being developed with more hygienic designs, customers are driving those requirements as part of their buying decisions more than ever.

Food-safety education courses during PROCESS EXPO will focus on The Shifting Landscape of Civil, Regulatory and Criminal Exposure; The Implications of the Food Safety Modernization Act on Food Processors; The Latest in *Listeria* Control; The State of Food Safety in Meat and



Poultry; and Overlooking Physical Hazards in a Hazard Analysis.

In addition, FPSA will offer a two-day HACCP and Preventive Controls/Qualified Individual Certification Course which will cover the current FSMA compliance requirements, with a focus on the Preventive Controls Rule and how this aligns with the existing industry HACCP requirements. This training will assist food industry professionals in understanding the requirements for hazard analysis, preventive controls required for qualified individuals, and

the FSMA requirements impacting their responsibilities and their companies.

Food-safety education is of utmost importance for any professional in food processing at domestic and international companies that manufacture, process, pack or hold food. FPSA is pleased to be offering these important programs. ●

David Seckman is president/CEO of the Food Processing Suppliers Association (FPSA). For more information on Process Expo, visit www.myprocessexpo.com.

