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Trend REPORT

Increasing Regulation in Food Processing and 3 Ways to Increase Compliance to Standards.

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Over the course of the last 30 years...

Food safety has become a top concern among consumers, governments, food processors and food distributors. Several high profile food recalls combined with the proliferation of media access have driven increased awareness to the safety of the food supply chain. As a result, governments have passed new regulations, retail consortiums have adopted new standards and food processors find themselves searching for ways to improve compliance to these new standards.

Greater Public Focus on Food Safety

Even as technology improves, food recalls still populate the headlines. New recalls hit the newswire every week with 1069 food recalls issued in the US and 596 recalls issued in Europe in 2013. See the recalls.

Occasionally, a larger epidemic draws national attention:

- In 1996, mad cow disease in Britain dominated headlines around the globe causing the European Union to ban exports of British beef. The ban lasted over 10 years before being lifted in 2006.
- In 2006, E. Coli linked to fresh spinach killed three people and sickened hundreds. It's estimated that the recall and subsequent sales loss cost the spinach industry $350 million.
- In 2007, salmonella linked to peanut butter sickened 600 people. The outbreak forced a 100% recall of the product costing an estimated $78 million.
- In 2011, listeria linked to cantaloupe killed 33 people. The outbreak forced the company to close and charges were filed against the owners.
- In 2011, E. Coli linked to sprouts produced by an organic farm in Germany killed 53 people.

Publicity around food recalls has had a measurable impact on consumer confidence. In the Consumer Food and Products Insight Survey conducted by Deloitte in 2011, 73% of respondents stated that they were more concerned about the food they eat now compared to five years ago.

Government Statistics Highlight Challenge

In the United States, the CDC estimates that each year roughly 1 in 6 Americans (or 48 million people) get sick, 128,000 are hospitalised, and 3,000 die of foodborne diseases. However, CDC studies indicate that food safety measures put into place have thus far had little impact on the total number of foodborne illnesses. Learn More...

The graphic to the left, produced by the CDC, indicates that the occurrence of foodborne illnesses due to major pathogens has either remained steady or increased over the last eight years.

FOOD SAFETY PROGRESS REPORT FOR 2013

Disease Agents	Percentage change in 2013 compared with 2006–2008	2013 rate per 100,000 Population	2020 target rate per 100,000 Population	CDC estimates that...
Campylobacter	☹ 13% increase	13.82	13	For every Campylobacter case reported, there are 30 cases not diagnosed
Escherichia coli O157	☺ No change	1.15	1.3	For every E. coli O157 case reported, there are 26 cases not diagnosed
Listeria	☺ No change	0.26	0.2	For every Listeria case reported, there are 2 cases not diagnosed
Salmonella	☹ No change	15.19	11.4	For every Salmonella case reported, there are 29 cases not diagnosed
Vibrio	☹ 75% increase	0.51	0.2	For every Vibrio parahaemolyticus case reported, there are 142 cases not diagnosed
Yersinia	☺ No change	0.36	0.3	For every Yersinia case reported, there are 123 cases not diagnosed

CDC — U.S. Department of Health and Human Services — Centers for Disease Control and Prevention

For more information, see http://www.cdc.gov/foodnet/

Changes in Government Regulations

In response to the increased focus on food safety, governments around the world passed new legislation aimed at improving food safety.

On January 28, 2002, the European Union adopted the General Food Law establishing fundamental principles for food safety.
In 2004, EC regulations 852, 853 & 854 provided additional detail regarding food safety principles.

On January 4, 2011, the United States passed the Food Safety Modernisation Act (FSMA) with bipartisan support in both houses of congress. FSMA represented the first significant change to food regulations since 1938.

On November 22, 2012, the Canadian Government passed the Safe Food for Canadians Act. The legislation consolidates food provisions that were administered and enforced by the Canadian food Inspection Agency under four statutes into the Safe Food For Canadians Act to strengthen oversight of food commodities.

Industry-Driven Standards

Concurrent with the emerging food safety requirements in Europe, there was a growing fatigue as retailers and brand manufacturers audited factories against their countless-in-house standards, each developed in isolation and with no consideration of convergence. The results showed no consistency.

The CEOs of the world's food retailers, working through their independent network CIES – The Food Business Forum, now the Consumer Goods Forum (CGF), agreed to take collaborative action. In May 2000, the Global Food Safety Initiative, a non-profit foundation, was founded.
Read More...

Today, GFSI benchmarks food safety schemes such as Safe Quality Food (SQF), British Retail Consortium (BRC), International Featured Standards (IFS) and Food Safety System Certification 22000 (FSSC 22000) to the GFSI standard.

The Impact on Food Processors

As a result of the increasing public focus on food safety, government regulations and industry standards, food processors find themselves under more scrutiny today than ever before. Food processors are required to have **documented systems** for nearly every aspect of their operations, they are required to **train all employees** on these protocol and they are **subject to audit** from government agencies, certifying bodies and customers.

The real challenge becomes ensuring compliance on the processing floor where food safety happens. While there are plenty of resources available to help Food Safety & Quality Assurance managers understand and develop the appropriate protocol, it can be much more challenging to bring these protocols to life on the production floor. High turnover, multiple spoken dialects, varied reading levels and the demand for a sanitary environment can make training and reinforcing best practices extremely difficult.

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Ways to **Enhance Compliance** on the Production Floor

Create a Visual Workspace

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Visual work spaces have long been embraced by traditional manufacturers as part of their Lean or 5S programs. Visuals help ensure work is performed in a consistent manner leading to better process controls that ultimately enhance quality.

However, due to food safety concerns, food processors have historically shunned the use of signs, tags and labels to provide visual cues on the processing floor. Materials typically used to create labels and signs simply could not stand up to the wash down environment. Recent innovations in metal detectable and wash down resistant signs, tags and labels have opened the door to new possibilities.

Given the complexity of regulations and the need for standard process to drive food safe operations, food processors could benefit tremendously by providing location specific information related to procedures and protocols that today reside in office binders far away from the production floor.

Some potential visuals specific to food processing include:

- Sanitary Operating Procedures - machine specific instructions to disassemble, clean and sanitise equipment for sanitation practices
- Visual Lockout Procedures - machine specific instructions to de-energise equipment properly prior to maintenance or wash down to help prevent injuries
- Critical Control Point Practices - placards that contain details on the critical control point limits, measurement, monitoring and verification practices
- Standard Work Procedures - information related to standard work procedures help reduce production errors that lead to quality issues
- Acceptable Product - product images of what is acceptable and unacceptable improves consistency to quality standards
- Line Changeover Information - instructions for line changeovers could reduce the time for changeovers and ensure all procedures are followed
- Line Changeover Information - Placing visual instructions for line changeovers could dramatically reduce the time for changeovers and ensure all procedures are followed.

STANDARD PROCEDURES

ROAD SIGN

On the Job Training & Visual Cues

Training frontline employees on the appropriate food safety protocol and food safe operations best practices poses a daunting challenge for many food processors.

High turnover, diversity of spoken languages, reading comprehension and multiple production shifts can all be obstacles to having a highly trained work force. But training your frontline employees is critical. Not only is it required by government agencies and GFSI schemes, your frontline employees are the people who make food safety happen.

While classroom training has long been the norm, more food processors are implementing an on-the-job training model to improve training compliance. A recent study presented by Alchemy Systems indicated that targeted classroom training resulted in an 82 percent compliance rate to the trained material. When the training was supported with on-the-job training and corrective observations, compliance rose to 94 percent. **Read More...**

As it's nearly impossible to have supervisors present at all times, on-the-job training programs can be supported by visual instruction on the processing floor. Not only can the visuals be used as part of the training program, they remain in place even after the supervisor has left to remind employees of the appropriate procedures.

Automate Your Inspection Documentation

Government regulations and GFSI schemes require numerous inspections and supporting documentation to ensure implementation of food safe procedures and compliance to standards.

Inspections related to line clearance for production of safe food, sanitation, equipment maintenance, equipment calibration and pest management often include hundreds of inspection points. The demand to document the inspection and then be able to generate that documentation during audits can be extremely challenging using a paper-based system.

Accurate and up to date records are critical for regulatory inspections and certification. Under FDA lack of records is probable cause of a failed or non-existent required system. Automating these inspections using software designed to support your compliance efforts can have multiple benefits for food processors. Electronic records…

- Reduce the amount of time to complete the inspections
- Reduce the amount of paperwork generated making it easier to organise and store documentation
- Enhance ability to search for specific records and recover key pieces of information upon request during audits
- Allow compliance managers to remotely access records to ensure the proper record keeping
- Ensure auditors that records have not been tampered with through the use of time & date stamps

Here to Stay.

With the increased public focus on food safety leading to more government regulations and industry standards, it's safe to say that the changes to the regulatory environment are here to stay. Food processors' ability to drive compliance throughout their organisation will only become a more critical component to running a food safe operation. Implementing proven best practices to improve your compliance efforts can ensure sustained compliance… even when regulations continue to change.

For more information on visual solutions for food processing, visit www.bradyeurope.com/food

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Articles & References

Food safety – CDC data indicating that foodborne illnesses are as common today as they were 5-10 years ago

Statistics on Food Illness

Consumer Sentiment Toward Food Safety

GFSI & History of GFSI

Canadian "Safe Food For Canadian's Act"

Regulatory Initiatives

European Food Law

Recalls in US

Recalls in Europe
- 3205 Notifications
- 596 Issued Alerts (meaning a recall actually happened)

Link to Alchemy Study

50 Years of Food Safety

Food Safety Modernisation Act (FSMA)

Regulatory Initiative - Safe Food for Canadians Act