SAFETYCHAIN

USING TECHNOLOGY
TO OVERCOME THE TOP 5
FOOD SAFETY
AND QUALITY CHALLENGES

For food and beverage companies, food and safety quality issues pose the greatest threat to brand and financial health. Yet, the task of ensuring the safest, highest quality product to customers is no easy feat – especially when we consider the rising regulatory mandates such as FDA Food Safety Modernization Act (FSMA), challenges in adhering to non-regulatory standards such as Global Food Safety Initiative (GFSI) schemes, and supply chain complexities. To compound these issues, there are also significant pressures to operate within Key Performance Indicators (KPIs). Add in the heightened consumer awareness of food safety issues, and it's clear that a fundamental shift needs to take place to enable food safety and quality assurance operations teams to more efficiently – and proactively – fulfil their roles.

To enact this change, companies can leverage technology, which will enable them to more effectively manage the demands and complexities of operations. Best-in-class companies throughout the food supply chain have already begun implementing technology solutions, and the practice is achieving widespread adoption as companies discover the benefits of incorporating technologies into their processes.

In this guide, we'll take an in-depth look at how technology can help you overcome food safety and quality challenges, including:

- ▸ The top five food safety and quality challenges
- ▸ How technology can help you overcome these five challenges
- ▸ How SafetyChain helps companies meet these challenges

Let's begin by exploring the most significant food safety and quality challenges in greater detail.

The Top Five Food Safety and Quality Challenges

While every food and beverage company faces its own set of unique challenges, there are a few standout hurdles shared across the industry as a whole. Here, we'll take a look at the five most significant food safety and quality challenges currently affecting organizations.

Challenge 1: Risk Mitigation

According to the 2017 Food Safety & Quality Operations survey, conducted by SafetyChain Software and The Acheson Group, 48% of respondents have a risk-based supply chain control program in place within their organizations. Having effective supply chain controls is an integral element in mitigating risks, but just 32% of respondents said that they have immediate visibility into supplier non-conformances. The inability to proactively address non-conformances as they happen can be a major threat in your ability to control risks.

Mitigating risks doesn't just mean controlling product loss, of course. It also aids in your ability to provide a safe, high-quality end product for your consumers. In doing so, you can support consumer wellness, maintain your brand image, and avoid the potentially crippling costs of recalls.

Indeed, risk mitigation continues to be a persistent concern for food and beverage companies. The cost of withdrawals, rejections, and recalls industry wide is estimated to be more than $7 billion annually. This figure encompasses everything from internal waste to the high costs of lawsuits, as well as brand repair when illnesses (and worse) result from highly-publicized recalls.

Challenge 2: Ability to Meet KPIs

Managing and meeting KPIs is critical to delivering safe, high-quality products to consumers, while also remaining competitive and profitable. The Cost of Quality (CoQ) can significantly impact a company's ability to excel in KPIs such as waste, product holds, re-work, net weight performance, and customer complaints.

First and foremost, companies' inability to improve in meeting KPI goals lies in their limited visibility into KPI performance. The majority of companies polled in the survey above do not feel confident in their ability to track operational performance for continuous improvement, cost of quality, or sustainability. Moreover, only 38% said they have good visibility upstream, downstream, and internally at their company. Without the ability to track KPI performance over a specific period of time, it's impossible to gauge where you're underperforming or excelling. This significant lack in visibility impairs goal setting decisions, which directly correlates to your company's ongoing success.

Challenge 3: Scalability

Food and beverage companies are constantly at odds with the need to do more – satisfy more requirements, meet more regulatory and third-party challenges, and prepare for more audits – while using fewer resources. In fact, survey findings reveal that for the majority of companies, resources are the most significant barriers to getting a good night's sleep. Time was the second most significant concern, which illustrates the pinch many companies are feeling to deliver results with limited resources.

If your company is like most, you probably have an ongoing need to keep up with changing regulations while also staying competitive. Unfortunately, with more regulatory demands comes more paperwork, more stress, and in some cases, more public scrutiny. Companies must find a way to satisfy these growing needs, but for most, continuously hiring more people to handle all of them is not a viable option.

Challenge 4: Compliance and Audit Readiness

In the survey referenced above, less than half of companies surveyed (45%) said that their records are always audit ready, while just 35% stated that they're prepared for unannounced audits. Record management and documentation continue to be challenging aspects of audit preparedness.

Specifically, managing internal, regulatory, and non-regulatory standards and requirements has become an administrative burden for food safety and quality (FSQA) teams. This is especially true given the complexities, evolving standards, and tasks associated with ensuring compliance with a number of unique requirements, such as FSMA, inspections, Hazard Analysis and Critical Control Points (HACPP), GFSI, customer quality attributes, and internal audits.

Showing records to auditors or responding to inquiries is time-consuming and labor-intensive for companies without a centralized repository. If your company still operates using a paper-based system, you could find yourself sifting through paperwork, files, boxes, and spreadsheets to prepare for audits or retrieve the data needed to support inquiries.

Challenge 5: Operational Visibility

In addition to delivering the best products possible and achieving compliance, food and beverage companies must also continuously drive business results to ensure competitiveness and operational excellence. Yet, while continuous improvement is among the most important components of all best-in-class food safety and quality plans, programs, and third-party schemes, it's also one of the greatest challenges.

From file cabinets, to binders, to multiple electronic systems that don't work together, a company's vital FSQA data might be stored in a number of different locations across multiple facilities. If there's no easy access to comprehensive information, an organization doesn't have the actionable data needed to identify trends and make informed decisions on how to optimize performance and implement improvement.

How Implementing the Right Technology Improves FSQA Performance

Due to the very nature of the food and beverage industry, it's likely the food safety and quality challenges described previously will continue to impact companies for the foreseeable future. Since these challenges will be at the forefront of organizations' priorities, many forward-thinking companies are adopting technology to solve them. Here are some of the ways technology can remove the complexities associated with each challenge:

A Preventive-Based Approach to Risk Mitigation

Technology aids in preventing withdrawals, rejections, and recalls by enabling your FSQA team to more effectively implement a preventive-based approach to managing operations. This is accomplished by automating the execution of tasks and procedures associated with FSQA programs to ensure consistent adherence to program requirements. FSQA software provides real-time access to safety and quality business intelligence, allowing users to retrieve up-to-the-moment insights on operations. Alerts can be set up so that designated users receive notifications when data does not meet program requirements. This enables operators to step in and address a non-conformance in the earliest possible stage, thereby minimizing its potential impact. Technology also facilitates the automation of pre-shipment workflow reviews for complete, accurate product compliance verifications, helping to prevent product holds and rejections.

With a centralized repository for program data, FSQA software strengthens supply chain controls and simplifies supplier compliance and vendor approval programs. Vendors can be alerted whenever program requirements are updated to ensure they're constantly aligned with expectations.

Excelling in Meeting KPIs

FSQA technology improves a company's ability to excel in its KPI goals by providing greater visibility and actionable data across the operations. Instead of sitting in filing cabinets or spreadsheets, food safety and quality records are transformed into real-time business intelligence with the power to improve everyday business decisions, performance, and ultimately, the bottom line.

With a technology solution that includes real-time analytics, operators have access to business intelligence required to manage issues earlier, and this can save costs by reducing rework, retrievals, withdrawals, and recalls. Dashboards and reports provide comprehensive overviews and detailed insights into KPI performance. By tracking the data on an ongoing basis, organizations can identify both macro and micro trends based on targets or KPIs such as defect costs, waste, supplier ingredient compliance, and yield and net margins. Reports and charts can also be shared with key stakeholders to help inform strategic decision making.
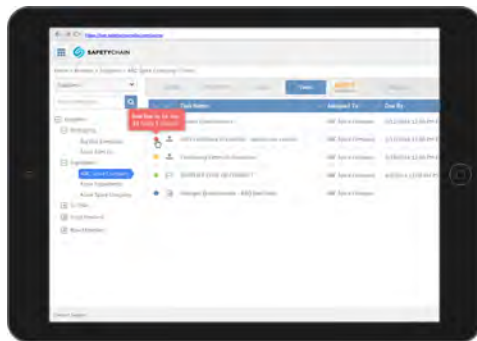
Scaling While Streamlining

FSQA technology allows food and beverage companies to do more with less. Most importantly, it saves time and effort by giving teams the tools they need to streamline operations. Automated program task alerts, interactive mobile forms, and portals are benefits of technology that eliminate the unnecessary manual work taking place across operations. These tools can provide guidance and reminders, such as to suppliers when documents are due, and alerts when test results are non-compliant or a standard operating procedure (SOP) hasn't been completed. As a result, FSQA programs can become less labor-intensive and the supervision needed for program execution can be reduced. Non-conformance alerts enable FSQA teams to strategically pinpoint and resolve issues rather than holding up production while hundreds of documents are manually examined to find exceptions. This targeted approach allows teams to focus exclusively on issues that demand attention without halting operations completely.

If your company is like many others, you may have teams located in growing fields, at loading docks, on plant floors, or at various other locations where data must be collected. With mobile technology, data can be input to a centralized system from any place and at any time, eliminating the time and labor it would take to fax it, return to the office, or re-enter data into spreadsheets for managers' review.

Achieving Compliance & Audit Readiness

When companies lack a centralized management system to collect and store all of their program standards, requirements, and FSQA data, it is difficult to stay prepared for audits. FSQA technology provides the infrastructure needed to organize data. From food safety protocols to USDA and FDA regulations, FSQA software provides program automation and business intelligence to help manage standards and requirements on a daily basis. You can implement checks to ensure specifications such as weight, color, or packaging of a material or ingredient are met while also monitoring all FSQA program activities through a holistic view.
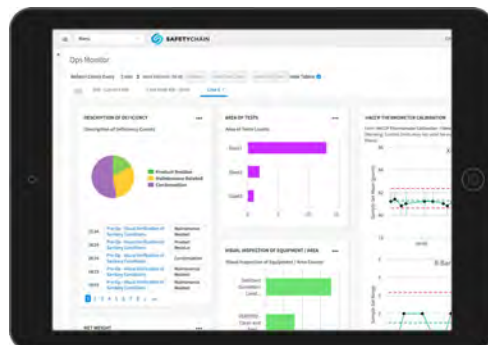
With all FSQA program data, documents, and plans are captured in one system, including monitoring, direct observation records, non-conformance reports, and corrective action preventive actions (NCR-CAPAs). Each record receives an unalterable time/date stamp, so responding to inquiries and audits is simplified. Ongoing maintenance alerts help maximize audit scores without losing critical points caused by past-due documents or similar clerical errors.

Improved Operational Visibility and Business Intelligence

The analytics delivered by FSQA software provide significant value to food and beverage organizations because they make it possible to monitor performance and process control in real time. You can quickly access supplier performance, keep track of critical metrics, and easily trend all of your food safety and quality data across all of your operations.

For many companies, food safety tasks are dispersed across multiple locations. Being able to know what's going on at separate facilities concurrently was once impossible, but cloud-based solutions now enable all stakeholders to access real-time operational data from anywhere. FSQA software also makes it possible for you to monitor specific attributes, such as target weight, dimensions, and temperature. It's common for thousands of food safety and quality records to be generated each week, which can equate to an enormous amount of data. Technology allows you to leverage this high volume of data to facilitate continuous improvement. Ultimately, enhanced visibility leads to improved business intelligence, which enables you to make decisions that will yield better results.

How SafetyChain Meets Top Food Safety & Quality Challenges

Through real-time data collection and automation, SafetyChain helps companies in the following ways:

▶ **Ensure Compliance**
SafetyChain makes it easier for you to manage your preventative-based programs and achieve 24/7 audit readiness.

▶ **Achieve Scalability**
SafetyChain streamlines data collection and management, enabling you to do more with less and manage an ever-increasing volume of records without increasing resources.

▶ **Meet KPIs**
SafetyChain's performance tools and dashboards make it easy for you to monitor operational data and determine where your operations are underperforming or exceeding expectations.

▶ **Improve Operational Visibility**
Analytical tools enable teams to track key trends and share FSQA data with stakeholders across the enterprise.

▶ **Reduce Risks**
Through features like real-time program and vendor monitoring plus non-compliant alerts and analytics, you can reduce your risks.

Summary

Within this guide, we've shared some of the ways that FSQA technologies can help you overcome the most significant food safety and quality impacting companies today. While each company is unique and has its own set of obstacles, the challenges in this guide are shared among the majority of food and beverage companies. To that end, adopting solutions like cloud-based software can help you improve efficiency while also staying competitive.

To leave you with some actionable takeaways, let's review a few key points:

▸ The five most significant food and safety challenges companies face today include risk mitigation, meeting KPIs, scalability, compliance and audit readiness, and operational visibility.

▸ Technology meets these challenges by eliminating time- and labor-intensive processes, ensuring all of your program requirements are being met, storing and organizing data, helping you "do more with less," and turning your data into business intelligence.

▸ SafetyChain's solutions help FSQA teams overcome the five challenges by providing the tools and valuable data analytics needed to be compliant and audit ready, achieve KPIs, optimize resources, and deliver operational transparency for ongoing, continuous improvement.

The role of technology for FSQA operations is clear given today's – and tomorrow's – complex food safety and quality environment. By leveraging technologies that truly empower your FSQA teams, you can achieve better results relative to the safety and quality of your products, as well as your bottom line.

About SafetyChain

SafetyChain is the #1 Plant Management Platform that improves yield, maximizes productivity, and ensures compliance for process manufacturers. Trusted by over 1,500 facilities, SafetyChain is the only enterprise solution uniting production, quality, safety, and supplier management.