



FOODCHAIN ID[®]
Seeing Food Clearly

Transparency, the new food challenge

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ACKNOWLEDGMENT

FoodChain ID would like to thank Lori Carlson for designing and writing this white paper.

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Lori supports GFSI scheme owners and certification bodies in the development of standards, guidance documents and food professional training courses. She also writes white papers, articles, newsletters, and webinars for a variety of food businesses and related service providers.

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Why transparency matters

SIMPLE FACT

Consumers need to be assured that the food they eat is wholesome and will not cause immediate or long-term negative consequences.

INDUSTRY CHALLENGE

Brands that provide the necessary level of assurance from farm to fork gain consumer trust and experience a competitive advantage with the opportunity to increase their market share.



In a recent needs assessment study of the food and drink supply chain conducted by Campden BRI, the research organization identified two critical areas integral to key business drivers such as food safety, quality, integrity, and security (Campden BRI, 2018).

1. Building consumer trust in the supply chain and its management
2. Engaging consumers in production, process, product and packaging knowledge

Telling the full story of how food is made is no longer unique to artisan brands or non-GMO products; it is an essential part of doing business to meet consumer expectations, build trust, and maintain brand loyalty. However, gaining consumer trust amongst recalls and frenzied media stories, which are sometimes confused by

misinformation, takes constant diligence and transparency on the part of food businesses.

Being transparent and building consumer trust are largely dependent on the reliability of information behind the product, production methods and any associated claims.

Fortunately, in the age of social media and instant communication, food businesses have never been better positioned to embrace transparency and tell the full story about where food comes from and how it is made. Especially when they strive to incorporate best practices, rigorous controls and supply chain visibility.

What does transparency mean to the consumer?

At its broadest scope, transparency is a set of actions which build credibility through openness, trust and accountability (Deiters, 2012). Consumers want to know and understand not only what is in the foods they eat, but also the origin, production methods, and environmental/societal impact. As a result, food businesses need to communicate their story through label and non-label formats where the claim (e.g., non-GMO) or message (e.g., ethically sourced) is backed by independent, objective and reliable evidence.

How do we achieve it?

For full transparency, companies must embrace practices and systems to manage their supply chain and production methods in a manner that verifies the safety, quality and authenticity of every product. The results of these actions form the basis for claims and messaging consumers can trust.

The following white paper discusses the role of certification, testing and technology in achieving transparency initiatives.

How does certification power transparency?

Certification and verification programs are based on the independent assessment of a site against a set of requirements. Additionally, the certifier is typically accredited and authorized to conduct the evaluation lending to the credibility of the program. As a result, recognized certification against schemes such as Global Food Safety Initiative (GFSI) programs or verification against identity preservation (IP) programs such as Non-GMO Project Verified provide reliable information about a company's practices in an objective format—typically, an audit report.

The achievement can be openly communicated to supply chain partners and consumers alike via certificates, product certification marks and/or online databases announcing certification details, which builds trust in a company's products and processes. Moreover, for supply chain partners such as retailers, audit details can be shared for enhanced transparency and trust.



Recognized certification and verification schemes used across the food and beverage industry are commonly built on a framework to improve supply chain management, achieve end-to-end traceability, and support continuous improvement in production. These pillars reflect industry best practices, which typically align with and exceed global regulatory requirements.

For example, many of the GFSI-recognized programs conducted independent evaluations of their updated food standards against new regulations of the U.S. Food Safety Modernization Act (FSMA) demonstrating alignment in practices for ensuring the safety of the food supply chain. This helps protect against a recall for a safety, integrity or labelling issue, which can cost firms significant financial consequences, brand damage, loss of shareholder value, and most importantly, consumer trust.

Other programs, which support the transparency consumers and retailers seek, include farm assurance and animal welfare; organic certification for organic products; sustainability, ethical sourcing and fair trade certifications; and carbon footprint calculations/ carbon management plan.

SUPPLY CHAIN MANAGEMENT

Supply chain management helps identify both material and supplier risks for the purpose of applying effective controls to ensure a food's safety, quality and authenticity. It typically relies on a risk assessment and approval process to gain knowledge about a supplier's products, processes and history.

High-risk suppliers (e.g., those with a history of a food safety recall) and high-risk materials (e.g., those with known pathogen prevalence or susceptible to product substitution) can be identified through risk assessment tools with preventive controls and mitigation measures applied to eliminate or reduce the risk. This process provides a platform for openness and accountability about how materials are sourced.

END-TO-END TRACEABILITY

End-to-end traceability refers to the ability to trace materials forward through production and distribution to the consumer as well as trace finished product backwards to the origin of all materials and ingredients, including packaging. It provides visibility into the supply chain by being able to identify where a product is at any given point in the process.



Being able to quickly identify and recall contaminated or mislabeled product in the marketplace helps prevent consumer illness or death, mitigate risk to the firm, and reduce incident costs along with brand damage. Additionally, visibility into supply chain tiers and supply chain transactions provides a stage to openly identify areas of potential risk for fraud or contamination events, which may not be readily visible if only looking back to the tier 1 supplier.



FoodChain ID Certification

FoodChain ID Certification is a global leader in third-party certification. As an industry-trusted provider, we ensure your certification is backed with the credibility brand owners, retailers and consumers seek.

FoodChain ID Certification is accredited to certify against the BRC Global Standards, Safe Quality Food (SQF) Codes, FSSC 22000, and GlobalG.A.P Standards. Additionally, we certify according to the EU and US organic programs, FoodChain ID Non-GMO and Gluten-Free Standards and sustainability schemes such as ProFarm and ProTerra.

Why is testing part of the transparency story?

Testing provides objective evidence to demonstrate truthfulness in claims, product integrity and the effectiveness of control methods. Analytical, genetic and microbiological testing are commonly used across the food industry to verify the following:

- Label claims (e.g., gluten-free)
- Methods of production (e.g., non-GMO and organic)
- Hazard controls (e.g., cleaning practices)

LABEL CLAIMS

Testing supports the veritableness of label and non-label information communicated to consumers, which builds trust through credibility while meeting many regulatory requirements for product labeling. And while regulation varies across countries with respect to food labeling and the use of claims, many fundamental aspects are the same—notably, that products cannot be mislabeled and claims must comply with regulatory definitions and be verified.



Product testing verifies nutrient declarations such as calories, percent daily value, sodium, and total fat, which are key factors in consumer purchasing decisions. It is also one of the primary elements of non-GMO and gluten-free schemes to verify the integrity of finished

product bearing the certification mark or claim. In these examples, testing achieves a two-fold goal as it verifies label information and product claims for regulatory compliance while—at the same time—providing transparent information consumers can trust.

FRAUD DETECTION

Alternatively, testing serves as a vehicle to verify the integrity of materials at-risk for fraud.



Where supply chain controls (e.g., supplier approval program) do not fully mitigate the risk of fraud for high-risk ingredients such as ground meat, honey or olive oil, material testing of incoming lots can be added to supplement the program and provide the necessary level of assurance.

Genetic and biochemical testing are industry standards for food fraud detection and aid in species identification of products. In this capacity, testing helps build transparency between the supplier and manufacturer and verifies label information consumers can rely on.

VERIFY HAZARD CONTROLS

As allergen cross-contact and pathogen contamination continue to dominate Class I recalls, verification of the effectiveness of hazard controls is critical to the livelihood of the firm and brand.

Allergen segregation and cleaning practices may be validated and verified through allergen testing—especially where the site is certified to a GFSI-recognized program. Similarly, pathogen controls can be verified by microbiological testing for indicator organisms or target pathogens.



Environmental monitoring is one of the most useful verification tools for confirming the effectiveness of cross-contamination, cleaning and pathogen reduction process controls. It is also a requirement of FSMA's Preventive Controls rule for the production of ready-to-eat (RTE) foods that do not receive a kill step in the final package.



FoodChain ID Testing

FoodChain ID specializes in DNA-based testing and is a global leader in GMO analysis and authenticity testing.

Additionally, we provide a range of testing products to fit the needs of your compliance program, food safety and quality management system and customer specifications.

These include—but are not limited to—microbial pathogen detection, allergen testing, Halal testing, soy quantification, and other classical analyses to support food analysis and authenticity.

Which technologies are most helpful?

Technology solutions which help achieve end-to-end traceability, improve supply chain management, identify risk, and ensure accurate labeling are the most useful in supporting transparency initiatives. This is because these elements provide veritable information about where food comes from and how it was produced to ensure its safety, quality and integrity.

BEYOND TRACEABILITY

Advanced technology like blockchain goes far beyond the ability to achieve one-up, one-back traceability. With systems like blockchain, visibility gaps within the supply chain are flushed out and supply chain management improved to add a heightened layer of transparency. This is because blockchain documents supply chain transactions while linking each to the one before, applies digital security to prevent recordkeeping alterations, and enables the aggregation of monitoring information recorded on the ledger.

While challenges still exist regarding industry-wide implementation of blockchain—especially where products contain multiple ingredients—it is a promising example of how technology can support food businesses in achieving their visibility and transparency initiatives.

RISK ASSESSMENT TOOLS

Risk assessment tools are the backbone of hazard, vulnerability and threat assessments. They range from manual models to sophisticated databases and software-as-a-service (SaaS) solutions. The reliability of the model or technology and competency of the user are critical to transparency as the assessment is the basis for determining supply chain, production and distribution controls—the key ingredients for keeping food safe and assuring authenticity.

When considering how much is riding on the quality and accuracy of the risk assessment, easy-to-use tools that provide insight into historical and emerging issues for raw materials and products are going to be the most effective at safeguarding the company against a significant incident and potential recall.



FoodChain ID Technical Services

FoodChain ID Technical Services is the longest serving technical administrator of the Non-GMO Project and has verified more than 50,000 products worldwide. We also offer technology solutions to identify risk, ensure traceability and improve supply chain management. Our solutions include:

HorizonScan™—Comprehensive database of food hazards and fraud events

inSyte—Product and ingredient management platform for supply chain traceability

SupplyTrak—Consumer label verification and compliance database

Conclusion

The new food challenge is communicating the full story of how food is made to consumers and supply chain partners for informed decision-making. To meet this challenge, food businesses need credible service providers who can provide accurate and reliable information to help them tell their transparency story from farm to fork.



Certification and verification schemes, accurate risk assessments, end-to-end traceability, and product testing are examples of reliable information which form the basis of product messaging consumers can trust.



Our Story

FoodChain ID recognizes the new food challenge and provides integrated solutions our customers value.

We build Account Teams from across our certification, technical services and testing service lines to provide a customized package of products that fit each client's need. Our approach to customer service ensures credibility, independence, flexibility, and convenience.

FoodChain ID's industry expertise and broad portfolio of certification, verification, testing, and technical services ensures you have an authentic partner helping you tell your transparency story.

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ABOUT FOODCHAIN ID

Previously known as the Global ID Group, FoodChain ID was, until recently, comprised of three divisions: Genetic ID, Cert ID, and FoodChain ID Non-GMO Project verification. In an effort to increase the depth and breadth of its offerings and enhance customer service, the business is now rebranded as FoodChain ID.

FoodChain ID provides integrated food safety and food quality solutions that address the challenges and opportunities in the rapidly evolving food industry. Serving more than 30,000 clients in over 100 countries with a market-leading portfolio of testing, inspection, certification, and consulting services, FoodChain ID helps companies navigate an increasingly regulated global food economy demanding higher levels of transparency, accountability, safety, and sustainability.

OUR PRODUCTS

GFSI Certification

Certification to a GFSI-recognized food safety program benefits suppliers, retailers and most importantly, consumers. FoodChain ID Certification certifies against the following schemes.

BRC Global Standards	GlobalG.A.P
FSSC 22000	SQF Codes

HorizonScan™

Effective management of food safety, quality and authenticity starts with an understanding of material, supply chain and operational risks. HorizonScan is a comprehensive database of food safety and integrity issues from over 100 official data sources across the globe. HorizonScan puts critical knowledge for risk-based decision-making at your fingertips.

Non-GMO Project Verification

Consumer demand for non-GMO foods has grown due to concern over the impact of genetically modified foods on the environment and human health. To meet the demand for GMO avoidance, the Non-GMO Project offers trusted, third-party verification of non-GMO foods. FoodChain ID Technical Services is the leading technical administrator of the Non-GMO Project with more than 50,000 products verified.

PCR Testing

FoodChain ID Testing performs PCR testing for all industry sectors. We specialize in DNA-based testing and are a global leader in GMO analysis and authenticity testing. Additionally, we offer species identification testing for food authenticity programs and provide a range of testing products to fit the needs of your compliance program, food safety and quality management system and customer specifications.

USDA Organic Certification

The organic market continues to expand on a global level as consumers seek out certified organic products. To support this growing trend, FoodChain ID is an accredited certifier of the USDA National Organic Program (NOP).