

The Only Sensible Approach to Food Safety: Expanded External Audits

Manufacturing Alumni

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Richard Ross, Director of Industry Relations for TraceGains, Inc. insists, "A new imperative has appeared. Consumer trust of food safety is shaken. Food businesses are realizing that traceability and supply-chain monitoring exposes an opportunity for additional profit. Although the consumer has always had the power to influence the food industry, that influence is being heard loud and clear – safe, flavourful and affordable food - and the food businesses are listening intently."

Ross designed and owns PathTracer, a software-as-a-service food traceability program. PathTracer's design is derived from Ross's thirty-some years of management experience in the food industry. He has managed six different food businesses for Archer Daniels Midland that includes flour and corn milling, packaging, custom mixing and Martha Gooch pasta. As a vice president and general manager for ConAgra, Richard was responsible for the Specialty Grains division that included eight food manufacturing facilities (three international) associated with corn and oat milling, wheat germ oil extraction, oat milk production and a special barley product for diabetics and weight control.

TraceGains, Inc. was founded in 1998 with a 100% focus on traceability. The company has a patented delivery system —14 patents granted and growing —and also is an Issuer of United States Department of Agriculture Process Verification Program (PVP) Label.

Cutler: Why is the external audit the sensible next step rather than more extreme legislation?

Ross: Today the annual financial audit is taken for granted by any company that is trying to establish credibility, whether publicly-traded or not. The financial audit is very much a fixture in today's corporate world; less than four short generations ago, it was viewed as a revolutionary innovation.

Corporate disasters have expanded the audit role beyond basic financial reports to include compliance updates on several corporate operational areas. Without third-party audits, stakeholders rely solely upon status updates from management to understand the state of a company. A traceability review offers similar reassurances. Expansions to previous audit protocols, such as the 2002 Sarbanes-Oxley Act, are usually a reaction to newly enacted government regulations or the most recent corporate misstep.

Recent events strongly suggest that it is now time to expand the external audit function to include an external review of a company's traceability system. This does not require over-reaching governmental regulation. A decade of installing traceability systems for customers has shown us that only when a real-time process monitoring system is installed, and operational dashboards are provided to senior and mid-managers showing deviation from key operational business rules, will management perceptions synchronize more closely with reality.

Cutler: Why aren't monitoring traceability systems sufficient?

Ross: Even after process-monitoring traceability systems have been installed, an external review is needed to make sure that any gaps are plugged. A traceability review is a stand-alone audit (following a formally prescribed set of procedures conducted by auditors or third-party companies that are traceability specialists.) This is the only way that company directors, as well as existing and prospective shareholders, have the information they need to fully evaluate the company's traceability risk.

During the traceability review, specialists need to analyze factors such as: (1) product movement across the company's different legal entities, (2) identity preservation across various internal process transformations, (3) methods of collecting traceability information, (4) the type of information being collected with respect to the required reporting regulations, (5) the methods the company uses to retrieve regulatory information in the event of a tainted goods episode, (6) company process and business rule compliance monitoring systems, and (7) the company's recall history.

Cutler: Why are legislators looking for more severe measures?

Ross: Recently Georgia legislators, and other states are slated to follow, are taking reactionary and draconian legislative measures.

After Georgia-made peanut products were named as the culprit in a nationwide salmonella outbreak, state lawmakers have moved quickly on a bill to make Georgia the first state to require food makers to swiftly alert state inspectors if their internal tests show their products are tainted. The proposed food safety regulations would require the food processors to report the results within 24 hours. Never mind false positives, bad testing data, damaged brand protection from erroneous media reporting, and other nefarious outcomes. Federal officials, food scientists, legal experts and industry groups cannot point to another state with similar requirements and will cause many food manufacturers to vacate the state, causing significant job losses at a time when such a results can least be afforded.

Cutler: Could you detail what you see as the most sensible approach to audit and monitor food safety concerns?

Ross: The most sensible approach has three steps:

1. Label throughout the Entire Food Supply Chain as the Starting Point. Every raw food product leaving the farm gate, every intermediate food ingredient shipped from an ingredient processing plant, and every final food product shipped from the final food manufacturer, imported or domestic, must have bar codes depicting:

- (a) a unique identification number for each shipper
- (b) identification of the owner
- (c) product number identifying the contents of the carton
- (d) production lot number or other production identifier

Initially, the labelling can be at the individual case or master case level (whichever is most appropriate), but labelling quickly should move in the next five years to individual items inside the case as appropriate. We don't think each apple, for example, should have this information, but if the carton contains wrapped, tinned or otherwise packaged food products, each separately wrapped consumer-ready food item should be labelled. The label containing the above bar-coded information should also be human readable and interoperable throughout the supply chain: from growers and first-mile producers all the way to the receiving dock of the retailer who provides the finished product to the consumer. Retailers, though, would not be required to tie a specific sale to a specific consumer.

One such labelling approach would be to combine the current UPC code with the lot number using the Global Standard 1 (GS1-128) labelling standard. There are several labelling standards, though, and we are not predisposed to a specific standard.

2. Preserve Identity throughout the Entire Food Supply Chain as the Foundation for Safety and Rapid Action in the Event of a Problem. All labelled products from the farm gate, through intermediate ingredient processing, to final manufacturing should be scanned upon receipt, and each incoming material should be tracked to the specific, final product. In this way, each outgoing product from each production segment (whether a consumer-ready finished good or an intermediate) can be tied back to all the batches for each incoming ingredient. Identity would be preserved across commingling, re-pack, re-work, and re-combination.

Additionally, any packaging material in direct contact with the food product would also be tracked as part of the record. The result would be a Bill of Compliance for each production batch for each operation. Given that the ingredients for many final food products pass through one or more intermediate processors, this allows authorized regulators to truly understand the source of all materials back to the first mile.

3. Create a Private Industry Data Repository for the Entire Food Supply Chain while Enabling Rapid Investigation, Root Cause Analysis, and Tracing to the Source of the Problem. The data gathered would not immediately be sent to a central, government-controlled database. Rather, each company in the supply chain would be free to choose a "data trustee" who will hold information on the food company's behalf, and make only appropriate information available to investigators in the event of a food safety problem when investigators request that information. A large corporation might elect to become their own "data trustee" if they were able to become certified as a "data trustee".

Until requested, no corporate production information would flow from the "data trustee" to populate the government database. Each "data trustee" can be queried electronically by government investigators for information relating to a specific entity in the supply chain. When queried, the "data trustee" would respond with only the minimal information required to proceed with the food investigation. Other information which may be sensitive to the food company would be not shared with the government.

This data sharing approach not only preserves data confidentiality for the food companies, but it simplifies the task of assembling the necessary information for investigations by government. To provide the necessary checks-and-balances to ensure such a system is not abused, each government use would be reviewed by a select committee of government-appointed members (1/3), industry-

appointed members (1/3), and members mutually appointed by the first two groups (1/3).

Cutler: How do you see this approach helping investigators deal with a serious food quality outbreak?

Ross: This approach would be a huge leap forward for investigators who currently deal with a fragmented and disconnected system based on “one-up, one-back.” Simply put, without electronic data repositories that are connectable and rapidly available to query, investigators will always be burdened with a painful and lengthy process to “connect the dots” as was seen with spinach, tomatoes / peppers, and other high-profile cases. Because these investigations currently require huge manual efforts to sift through mountains of fragmented data (often available only in paper format), the results may take months. Even worse, there may be no conclusive findings at the end of the investigation, further frustrating both American consumers and private companies, whose revenue and profits losses pile up.

Cutler: How can the private trade-secret and proprietary information of food manufacturers be protected?

Ross: To protect each company’s proprietary data, government investigators only process and review information relevant to a food investigation, not all of the information generated in the normal course of food production operations. This makes the proposed policy not only cheaper for the government to implement, but also more effective in successfully and rapidly completing a food investigation. This reasonable approach protects the interest of consumers and the companies (and employees) who provide the food.

About the Author

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