FOOD PRODUCT TRACEABILITY

Recent food safety crises highlight the need for better traceability in the supply chain. New software options offer affordable tracking systems, even for small companies.

In the food and beverage industry, product traceability has always been a bothersome issue, which often pits manufacturers, packagers, and distributors against retailers, customers and government agencies. Only after the recent problems in the supply chains, the industries realized the need for better controls and for cost-effective and practical solutions.

Due to the development of new technologies and techniques, traceability is now becoming an acceptable and affordable business process. In spite of there being laws related to product traceability, such as FDA bioterrorism rule 306; they are ignored. The problem is due to the absence of an enforcement staff and limitations of enforcement agents to "post- event" inspections that have made these laws ineffective.

Supply chain complexities

While the government has been ineffective, brand owners have started taking greater interest in traceability issues.

A small problem in a supply chain that may be connected to several other chains can have devastating effects. Lack of traceability makes the identification of the problem almost impossible to detect, ruining the entire supply chain.

GMA (Grocery Manufacturers Assn.) and other trade organizations are trying to expand the FDA's funding and extend authority in order to verify that sites are following traceability and record keeping rules. Also, the aid of technology and extension of traceability to the farms has been recommended. Other influential retailers too, are compelling their food suppliers to follow the new set of standards on food safety management and traceability.

It was first considered acceptable if a company could present a list of its suppliers and customers as a form of traceability, but it is not so anymore. Most companies assume that they have the traceability they need, which is both commercially and legally false. It has been proven; by surveys of food manufacturers that true product traceability is hardly ever practiced. It has also been seen that less than 5% of food manufacturers meet the necessary traceability standards such as FDA 306, GFSI etc.

Traceability does not have an exact, simple and well-known definition that all the various regulations and commercial initiatives agree upon. But, there are a few tests that demonstrate the kind of traceability that is expected from manufacturers and packagers.

The traceability test

The concept of traceability can be divided into two parts:

1. Tracking and recalling- if a specific item sent to a customer it is important to have the following information:
- Specific lot numbers of items.
- The ship dates and the carriers that shipped the items.
- The raw materials used in the items that were shipped.
- Lot date, manufacturing date and container size.

If the supplier sends an item/lot to a company using two different delivery channels, then they are not the same products from a traceability standpoint. This item should be re-labelled on its arrival with specific container/lot numbers, to prevent loss of this information.

With regard to a vendor item given, the following things are important to know:
- Vendor lot numbers and manufacturing dates of the items received.
- List of carriers carrying the items by date and lot numbers.
- List of finished goods by item/lot received by the vendor that is to be shipped (by lot).

This sort of information needs to be available and easily accessible.

2. Labeling for the supply chain-
- The item number, lot number and manufacturing date should be printed on the product.
- Labels should be differentiated by their manufacturing plant.
- The 14-digit GTIN (Global Trade Item Number) barcode number must be used to record the company and item reference.

These are some of the main points that need to be paid attention to for good traceability.

Traceability not only reports damages but also greatly reduces it. Better traceability is better for the public, the brand and the industry. With better traceability problems can be easily identified and isolated. Hence making it easier to solve. Lesser problems mean lesser interest of the press in reporting the problems and the incurred damages.

The benefits of traceability have been observed before, when a particular company had some trouble with its product. But it was very easily solved because the company had very exact lot numbers and manufacturing dates on their product. So this way, due to the immediate availability of valuable information, precious time was saved.

Traceability thus, also gives a sense of control.

Avoid the paper trail

Collection of data and recording it on paper has been done for several years now. However, recording information on paper could be prone to errors. Moreover, searching for information from huge piles of paper is never easy. Even small companies produce large number of papers containing various kinds of data.

As such, a better and more effective form of recording and storing data is required. Simply installing the latest ERP (enterprise resource planning) or accounting systems will not provide adequate traceability as it does not focus on labeling, production management etc. However, they are great for business administration.

Lack of product labeling can be very problematic. New standards like the Produce Traceability Initiative (PTI), which includes the GTIN labels, are widely acceptable. The PTI asks for the packagers/ manufacturers to include a "refined" version of a UPC code and additional lot information. This has now gained broad approval.

Cost of implementation

Now the only problem that remains is the cost of its implementation and how should the implementation be done. The cost of traceability and the difficulty in implementing it, make it appear to be impractical but with time, traceability has now become a commercial and legal cost of doing business. It is no more just a "nice to have" option. Also, the Internet has greatly reduced the cost of business, making traceability highly affordable.

Previously, larger companies justified their investment by distributing their costs over larger volumes but this was not possible for smaller companies. The Internet has therefore allowed all sizes of companies to have an effective form of traceability. With the Internet the web-enabled "Software as a Service"(SaaS) came in.

SaaS is a service provider that owns and maintains the software and the computers it runs on. All the user needs is an Internet connection and a subscription fee that needs to be paid, to run the application. The costs are distributed over a large number of companies. This way the cost per user is quite less as compared to a standalone system.

Systems like Mobia are full-featured with WMS, traceability and labeling functions. Its cost per user starts at $125 a month. Only a labeling system would cost about $ 50 per month. RFID, which was once very expensive is now available at an affordable rate.

A good traceability system will be able to retrieve data from any point to every point, to process data retrieval for real or mock recalls and identify and document all the shipments, receipts, customers, vendors and products involved in no time.

This is very useful, as the users need not manually collect, record, organize and summarize their data for traceability.

Supply chains are now growing longer and food products getting more complex. As such a good traceability system is required. In its absence a small flaw in one supply chain can adversely affect all other supply chains interconnected with it. This makes the position of brand owners vulnerable.

In order to stay in business, manufacturers and packagers need to adapt and comply with the new traceability and labeling requirements.

With the recent available cost-effective solutions, every company can with ease implement the currently announced traceability and labeling requirements.

Extracted from article of David Miller, Food Technology Jan 09 by Sonia Khudanpur