



Traceability Systems for Product Security

Did you eat that Spinach?

Recent product recalls in produce (Cantaloupes, Spinach, Green Onions, Ginger), sea food, prepared foods(Beef Patties), consumer goods (Toothpaste), drugs (Heparin, Vioxx) and medical devices (Pacemakers, Stents) have shaken consumer's faith in food and drug supply chains.

Globalization, coupled with product proliferation, has led to companies losing control over the manufacturing and packaging of their branded products. Each activity in the value chain, from design to manufacture to distribution may be completed by a different partner at a different location, leading to increased points of failure and miscommunication. There is no cost effective way for brand owners to validate compliance with supplier contracts and agreements on host of issues such as ingredient quality, testing, pesticide use, labor standards etc. As a result, many companies today are one safety incidence away from hefty government regulation or even financial collapse.

Response time is of essence during these unpredictable crises. Inability to pinpoint sources of contamination and timely location of tainted products in the distribution chain can further deteriorate brand image and run up the costs of recall.

Timely and appropriate response requires capacity building for well defined processes, and training of staff to deal with contingencies. Infrastructure, Monitoring and Simulation are three legs of a robust product security system.

The traceability infrastructure for the perishable supply chains must be able to provide a schema and a system to identify every transaction – from the farm gate to the retail sale. This will require more than just the information contained on an EPC tag, it will require the temperature trail, the material handling and other events associated with the product as it travels through the supply chain.

Accelerating Product Recalls

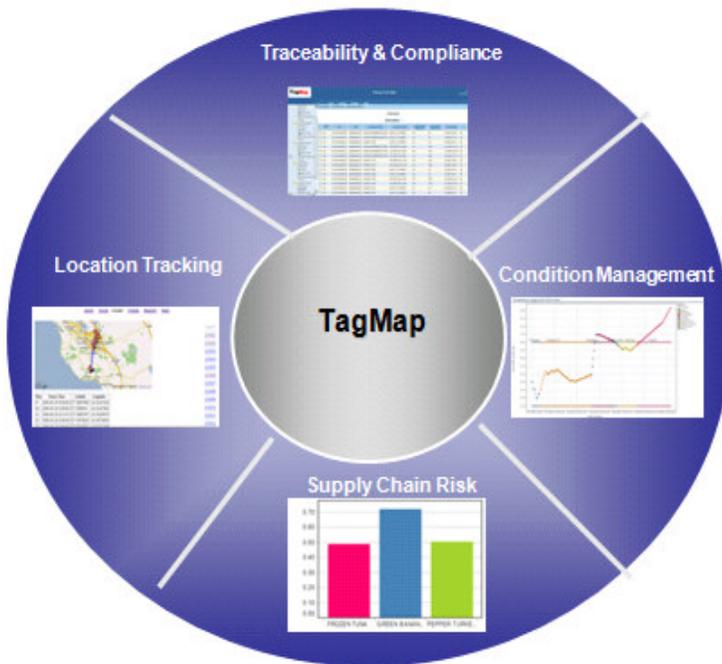
- Sept. 2006: Spinach E. Coli (Impact 150M)
- Dec. 2006: Green Onions/Taco Bell
- Jan. 2007: Peanut Butter Salmonella
- Mar. 2007: Pet Food Melamine
- Oct. 2007: Medtronic Heart Lead Wire recall
- Oct. 2007: Topps Beef recall
- Mar. 2008: Cantaloupes/ Salmonella
- Mar. 2008: Baxter Heparin Vial recall
- April 2008: **Is your product next?**

What will you do if you get that 3:00 AM Call?

During the Spinach recall of 2006, delays in localizing E.Coli to specific growers led FDA to mandate that all bagged and fresh spinach be pulled from the shelves, leading to \$150M direct loss for the fresh food industry. Recently, Baxter International recalled its blood thinner Heparin after 4 deaths were reported. Even after four weeks of recall, Baxter could not identify the affected lots with certainty and recall was expanded beyond initial nine lots.

How can Sensitel help you Control your Global Supply Chain!

Sensitel has developed an advanced analytics solution that leverages already existing supplier quality data, meta data and proprietary sources of local intelligence, to provide an early warning system to global corporations. Sensitel probabilistic models detect disruption and quality patterns, even with a partial and incomplete set of product movement data. Through its on-demand SaaS (Software as a service) offering, Sensitel ensures that information about product location and history is at stakeholder's fingertips in case of any product safety incident.



Product Security CPR

- Reduces cost of compliance for product security
- Protects and builds brand (support claims for Non-GM, Organic, Dolphin Free, pesticide free certifications etc)
- Track by lot #, trade item name, supplier, retailer
- Localize inventory in distribution chain
- Continuous supplier quality risk management

TagMap Product Security Platform

TagMap is a managed tracking service that delivers product and supply chain security by linking granular RFID data with location data (GPS & active tags), condition data (temperature, humidity sensors etc.) and transaction data (such as Purchase Orders and EDIs). Using TagMap, companies can realize specific benefits in Efficiency, Security and Quality. For instance, a fresh produce supplier can weed out non-performing logistics carriers by linking temperature history with transportation data. A grocer can anticipate stock-outs and order timely replenishments.

Contact Us

Sensitel offerings are delivered by a world-class team with decades of years of experience in perishables and drug manufacturing, assembly, pilot laboratory development and commercialization. Sensitel is based in Sunnyvale and has offices in Mumbai, India and Vancouver, Canada. For more information on how Sensitel can help you with the success of your clinical trials, please call us at 408.538.2252 or visit us on the web at www.sensitel.com