



## Cold Chain - Marine Insurance

# Reducing Loss and Improving Quality in the Fresh Food Supply Chain

### Solution Benefits:

Intelleflex enables educated decisions that are designed to optimize fresh produce supply chain operations by providing:

- Pallet-level (not trailer-level) temperature monitoring from field to store.
- Reduced shrink - due to spoilage and improper storage
- Reduced rejection - (entire loads won't be rejected when only one pallet has turned)
- On-demand information for real-time decision making
- Improved quality, increased revenues and reduced claims
- Easy deployment - integrating with existing networks and workflows

### The Challenge

\$35 billion of perishable foods are wasted annually. Half of this loss is temperature-related and experienced in-transit between the grower, and the grocer where even minor temperature changes can significantly reduce shelf life and effect quality. This leads to lost revenue, and prevents processors and retailers from optimizing inventory using FEFO (First Expired, First Out) management techniques. Produce losses lead to increased claims, and the lack of documented temperature variances throughout the transit and storage chain makes claims processing complex and costly.

The Hartford and Intelleflex have formed a strategic alliance to explore ways to help reduce waste and improve quality in the fresh food supply chain. The Hartford is a leader in providing customized transportation insurance solutions — as well as loss control and risk reduction services. Intelleflex is an innovator of temperature monitoring solutions. Together the products and services can improve the quality of delivered produce by helping reduce waste and shrink due to temperature mishandling through improved cold chain processes and performance. Whether your interest is as a shipper, carrier, warehouse operator, or logistics provider, Intelleflex can provide the tools to implement practical, cost effective solutions to help reduce waste, lower claims, and maximize profits.

### The Need for On-Demand Visibility

For perishables, managing temperatures from the field to grocers is critical. Pallets and containers can be mishandled, left on loading docks, stuck on trucks, misrouted and subjected to temperatures that diminish quality, reduce shelf life and potentially create health risks. Legacy tracking and temperature monitoring technologies offer only limited, trailer-level information about the products as they move through the cold chain. In-transit data visibility — at the pallet level — enables producers, shippers, carriers, and retailers to optimize the management of remaining shelf life and implement FEFO inventory management. This can maximize the value of harvested produce by routing products based on remaining shelf life, providing predictable product quality, reducing losses, and claims and simplifying claim processing.

## The Solution

Intelleflex provides growers, packers and shippers of fresh produce with the ability to monitor the temperature of their products in-transit, enabling real-time decision making to help improve quality control, and reduce waste and shrinkage.

**Intelleflex temperature tags are added at the pallet-level to enable routing of each individual carton or package based on its unique remaining shelf life.**

With Intelleflex, growers, packers, and shippers can easily and simply place cost-effective and re-usable temperature monitoring and location tracking tags inside each carton or pallet of produce. **Intelleflex tags feature on-chip memory for storing and easily accessing a complete temperature history of the perishables**, from the field to the retailer. This provides chain-of-custody information and documented assurance that the product has been maintained at proper temperature throughout shipment.

**The tags can be easily read in-transit — without unpacking — enabling real-time decision making.** You can implement a FEFO inventory system using shelf life prediction based on the retrieved temperature history. This can allow quick rerouting of products based on remaining shelf life to help deliver better product quality and higher revenues.

Intelleflex XC3 Technology™ RFID solutions deliver the ability to consistently monitor and document pallet-level temperatures of produce while it is in transit or storage. This provides the ability to more easily identify and manage product grading and food safety. **Intelleflex technology enables users to determine routing based on remaining shelf life at the pallet — rather than trailer — level.**

Intelleflex solutions are designed for the most demanding environments. Intelleflex tags are made with FDA compliant materials and are built to withstand extreme temperatures, moisture and dust conditions found throughout the cold supply chain. **Intelleflex tags and readers are designed to integrate with existing applications and networks.**

Intelleflex RFID is built on ISO and EPC industry standards, deliver read/write ranges of over 100 meters, feature high-speed memory for storing temperature and waypoint data, and include multiple levels of security. **Re-usable temperature tags offer two or more years of battery life to deliver a highly cost-effective solution**, potentially delivering ROI within a single growing season.

## XC3 Technology

Intelleflex solutions are enabled by Intelleflex XC3 Technology, delivering the capability of active RFID-based solutions at a fraction of the cost.

- Based on ISO/IEC 18000-6:2010 and EPCglobal C1G2 standards for battery assisted passive RFID
- Deliver read ranges in excess of 300 feet/100 meters (from home plate to outfield stands at a baseball stadium)
- Read tags and monitor conditions (i.e. temperature inside containers/pallets)
- Operate seamlessly in RF unfriendly environment involving containers/ liquids
- Tags include on-chip memory for storing information about the asset or product with multiple levels of security
- Intelleflex offers handheld and fixed readers, multiple form factor tags and antennas, as well as starter kits for piloting projects

## The Hartford

For over 200 years, The Hartford has been partnering with its clients to help reduce their exposure to loss. Utilizing The Hartford's professional agency distribution which includes transportation specialists, customers can receive:

- Individual consultations and a review of their business practices
- Professional advice designed to help run a safer, more efficient, and ultimately more profitable business

## For More Information

### Intelleflex

www.intelleflex.com  
+1 408 200 6500 International/Direct  
info@intelleflex.com

### The Hartford

www.thehartford.com  
+1 860 547 5000 International/Direct  
info@thehartford.com