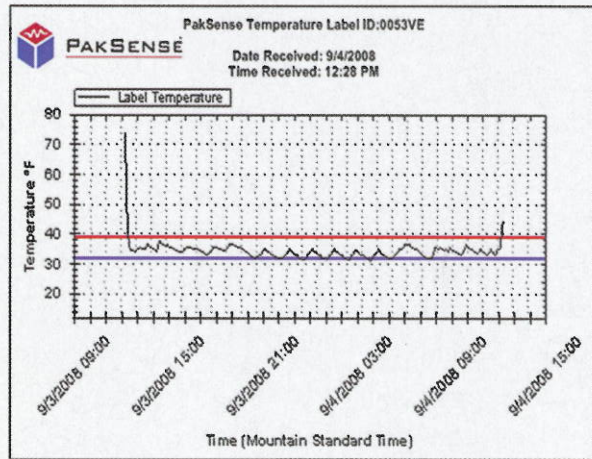


Shipment Information

Shipped From : Joe's Farm, Salinas CA
 Shipped To : Harrison Ranch
 Date and time : July 11, 2008 2:45 PM
 PO # : 3569845FHX
 Carrier : Melvin's Truckline
 Truck # : 192
 No. of pallets : 86
 Arrived on : Thursday, September 04, 2008 12:28 PM
 Timezone : Mountain Standard Time

Environmental conditions during shipping : Not Satisfactory
 PakSense Ultra Serial Number : 0053VE
 Average Temperature : 34.1°F
 Standard Deviation : 33.6°F
 Max temp : 44.1°F
 Min temp : 31.1°F
 Optimal temperature ranges : 32.0°F to 39.0°F
 Total Time within range : 0 Days 22 Hrs 20 minutes
 Total time above upper limit of 39.02°F : 0 Days 0 Hrs 10 minutes
 Total time below lower limit of 32°F : 0 Days 1 Hrs 10 minutes



[Click on the chart for a larger version.](#)
[Click here for the temperature log.](#)

CLOSE WATCH: With a new traceability solution, perishable products can be followed, and their temperature monitored, through the supply chain, and COOL compliance requirements meet.

Food traceability

Solution combines traceability, temperature monitoring

THE PAKSENSE Ultra T3 powered by HarvestMark is a farm to fork traceability solution with integrated temperature monitoring and country of origin labeling (COOL) capabilities. Said to be an industry first, the solution allows the tracking and tracing of products through the supply chain, while simultaneously allowing the monitoring of the cold chain and compliance with COOL requirements.

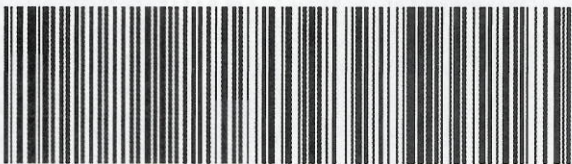
Administered by the USDA, COOL requires retailers to provide their customers with country of origin information for covered commodities. These include certain beef, lamb, chicken, and pork products, as well as fresh and frozen fruits and vegetables.

With the Ultra T3 solution, developed by PakSense and YottaMark, traceability, cold chain, and country of origin data are securely uploaded and stored in a hosted database, accessible anywhere, anytime, via a password protected web portal.

PakSense is a leading developer of intelligent sensing products specifically designed for perishable goods. HarvestMark is the fresh food traceability solution from YottaMark, a provider of unit-level brand security and real-time channel intelligence solutions.

"Recent food safety recall incidents and increased government scrutiny illustrate the need for robust trace-back systems that can help contain the extent of a food safety incident and help protect brand reputation," said PakSense CEO David Light. "By raising the bar and combining trace-

ability capabilities with cold chain monitoring and COOL, we provide the industry with an easy-to-implement, (Continued on page 28)

YottaMark, Inc. 1400 Bridge Pwky Redwood City, CA 94065 (866) 768 7878	Product of USA
TOMATOES GRAPE	 Harvest Mark Trace this case at: www.harvestmark.com 5256 2775 2710 YM01
20 LBS, LOOSE	
 (01) 0 00 00123 00001 7 (10) 525627752710YM01	

HarvestMark traceability tags contain information relating to country of origin requirements, processing/picking data, bill of lading details and customer-specific data.

Food traceability . . .

(Continued from page 25)

single-source solution that helps solve three food safety issues with one product."

The process

At the field or packaging facility, a uniquely-coded HarvestMark traceability tag is affixed to the individual commodity, product container, or case, explained PakSense business development manager Theresa Willerup. Each code denotes country of origin information, plus information such as harvest date, field of harvest, crew, processing/packing data, general bill of lading details, and any customer-specific data.

PakSense temperature monitoring labels are then applied at the pallet or container level. Flat, and about the size of a sugar packet, these pre-programmed temperature devices monitor and record the temperature and time of a perishable product's environment during distribution, storing all data in the label's memory.

PakSense labels are automatically linked to the HarvestMark case and/or item labels.

"At any point during distribution cycle, a special reader can be used to download temperature information," Willerup said.

"Temperature data can be easily captured and uploaded to the HarvestMark data center as product moves through the supply chain. At the data center, this information is automatically associated with the appropriate HarvestMark traceability labels."

All harvest, shipping, and temperature information for each item is then available to the end user.

Using either the serial number of the PakSense label or the HarvestMark code, a Ultra T3 user can query, via a secure web portal, tracing, country of origin, and cold chain integrity information.

"In the event of a food safety or temperature abuse incident, brand owners can use the serial numbers and codes to easily and effectively notify retailers if product is at risk of being compromised and have the suspect product isolated," Light said. "In addition, the PakSense Ultra T3 enables retailers to identify which products have not been affected, reducing unnecessary losses in sales from cus-



PakSense temperature labels monitor a product's environment through the distribution cycle, storing all data in the label's memory.

tomers confusion and uncertainty."

Every Ultra T3 user gets their own customized webpage on the secure web portal. Key areas of information on each webpage, organized and presented in an easy-to-read way, include harvest/packing details, shipping information, food safety status, and environmental conditions, such as temperature status, average temperature, temperature deviations, and time out of temperature range.

Additional functionality features help pinpoint when, and for how long, temperature issues occurred. There is an expanded, graphed view of temperature conditions, and a temperature log in 5-minute increments.

The solution is fully compatible with the Produce Marketing Association's *Guidelines on Traceability* and meets GS1 requirements.

GS1 is a global organization with an integrated system of standards that provides identification of products and locations through the use of standards, barcodes, and electronic product code/radio frequency identification (EPC/RFID) tags. ■

Carriers plan for tight credit, lower volumes, and fewer truck purchases

A national business expectations survey conducted recently by Transport Capital Partners (TCP) revealed that carriers are adjusting to the new economic environment and most expect the adjustment phase to continue through 2009.

The survey, which aimed to summarize 2009 expectations for the transportation industry, received a high response rate from carriers with diverse geographic and operational characteristics. The response regarding the freight environment was tempered toward the downside, with 33.8% of respondents expecting business volumes to decrease. Only 16.5% expect an increase in 2009 compared with 2008. Of the responding carriers, 37.7% thought volumes would remain the same.

Most respondents (54%) expect credit availability to tighten in 2009 versus 2008. A small group (11%) thought it could improve, with 23.6% expecting it to remain the same.

Projected equipment purchasing plans are low. Two-thirds of the carriers that responded are expecting to replace less

than 20% of their tractors in 2009, while 17.3% plan to replace 20-40% and only 9.4% indicated plans to pre-buy in anticipation of 2010 engine standards.

Rate increases will remain about the same in 2009, according to 55% of the carriers. Another 12.5% anticipate an improvement and 20% forecast a decrease.

The majority of respondents expect fuel surcharges to cover 80% to 95% of increased fuel costs, while about 20% expect them to cover about 95% or more. About the same number felt less than 80% of the costs would be covered.

Respondents reported fleet sizes spread across five revenue categories, from under \$10 million to over \$100 million. Approximately half the carriers chose "general carrier-diversified with no long-term contracts" to describe their company and 20.4% chose "core-carrier—primary position out of specific origins."