

Title Xsense, real time monitoring of temperature and relative humidity in refrigerated trucks and warehouses

Author Tayfun Agar, Gary Ward, Sabri Burhanglu and Israel Ben Tzur

Citation Abstracts Book, 6th International Postharvest symposium, 8-12 April 2009, Antalya, Turkey. 256 pages.

Keyword Perishable; supply chain; parameter

Abstract

*Xsense*TM is a web-based system designed for real time monitoring of critical quality parameters of fresh produce and other perishable items throughout the entire supply chain. Disposable, low-cost, active RF tags placed in pallets containing perishable items measure temperature and relative humidity at predetermined intervals and transmit the data by wireless RF to a communications unit (CU) that is installed in a truck, container, warehouse or other suitable facility. The CU, which also receives GPS location, relays the data by cellular modem and the Internet to StePac's *Xsense*TM system, where it is analyzed. If predetermined thresholds are breached, the system immediately notifies by e-mail and/or SMS of the perishable items and their location. Users can receive updates at any time by accessing the web-based *Xsense*TM application from their PC or laptop. The *Xsense*TM system is applicable for land freight, combined land & sea freight, sea freight, air cargo terminals (before & after flight) and risk management at warehouses and distribution centers. The system facilitates novel First Expired First Out (FEFO) management, process improvement and minimization of sub-quality shipment arrivals.