The WG CENTER for Innovation & Technology®

WESTERN GROWERS
CASE STUDY #1

Inteligistics

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Fresh Del Monte improves its cold chain efficiency by 30%

Problem:

Rapid cooling of fresh produce loads postharvest is essential to optimize product quality in the cold chain. Vacuum tube and HydroVac cooling are standard industry practices for a range of fresh produce, but as currently implemented require significant time and cost to execute effectively. The average cooling time (start to end of the cycle) is in the range of 30 - 45 min for leafy green vegetables and considerably longer for denser products such as cabbage and cauliflower.

Equipment operators rely on pre-selected configurations and static data to manage the cooling process, which often leads to cooling times significantly longer than needed. Current paper-based documentation logs are retrospective and do not permit real time monitoring and control.

Technologies on the market at present can track cooling procedures with some accuracy, but Fresh Del Monte was looking for innovative solutions to significantly improve operational efficiency and reduce cooling times to provide economic, product quality, and sustainability benefits.

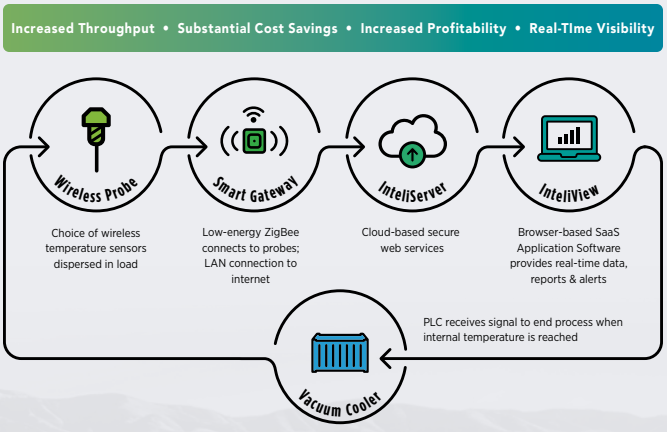
Solution:

After extensive discovery conversations with Inteligistics, Fresh Del Monte chose to roll out Inteli*Cool*™ – a climate-smart tool developed and patented by Inteligistics.

Technology testing environment:

- Inteli*Cool*™ technology tested over three years under real-world conditions in the Salinas Valley and Yuma area, in partnership with Fresh Del Monte and other grower-cooperators
- Over 9,000 individual vacuum tube cooling cycles conducted on a range of commodities over multiple locations
- Real-time data processed in secure cloud-based servers and analyzed with custom software – individual equipment cycle end process automatically controlled using proprietary algorithms

Inteli*Cool*™



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Key results:
InteliCool™ proved itself an effective, reliable, and widely adaptable solution to enhance product quality, improve efficiencies, and reduce costs, while lowering carbon emissions and helping mitigate climate change.
The patented technology provides real-time data visibility, monitoring, and control, converting cooling from an art to a science. Over the three years of development and 9,000 cooling cycles of leafy green vegetables, four key results emerged:

- Average time to reach optimum product temperature (33°F - 34°F) reduced by 4-7 minutes/cycle
- Overall efficiency improved 15-30%
- Electric power savings totaled 109,000KWh – equivalent to $26,000 in cost savings
- CO2 emissions reduced by 77 metric tons – equivalent to 7,500 gallons of diesel fuel

Hans Sauter, Del Monte SVP for R&D and Food Safety and Chief Sustainability Officer for Del Monte Fresh Produce Company, summarized the impact of InteliCool™: "By transforming this process from manual to electronic and incorporating real-time temperature and pressure data using InteliCool™, we have changed the vacuum cooling process into a climate-smart, dynamic, data-driven decision, instead of one relying on static data and operator experience."

Our featured start-up partner
Inteligistics

Ecosystem of Visibility Solutions across the Value Chain.
Inteligistics is a provider of innovative supply chain digitization and cold chain visibility solutions for the food, logistics, healthcare, and energy monitoring markets. InteliView solutions fully integrate cloud-based communications gateways with various environmental, vibration and chemical sensors, GPS, and security devices for specific customer applications. Insightful and actionable information and alerts provided via a color-coded graphical dashboard and data analytics platform deliver high value improvements to cold chain and supply chain performance, productivity, and quality. Customers and partners achieve process improvements, decreased power usage, increased product throughput, more efficient labor costs, and improved inventory levels.

Western Growers Association Center for Innovation and Technology.
Located in Salinas, CA, the WG CIT is an incubator for the technology companies and startups WG believes are essential to the viability of the fresh produce industry. The WG CIT provides member startups with market access to our specialty crop growers for discovery conversations, field trials, and strategy recommendations for fundraising and go-to market partnerships.

WG Case Studies highlight development and delivery of technologies by WG CIT partners to optimize product quality, benefit customers, enhance sustainability, and contribute to our member's profitability.