

Ahead of What's Next 

# Progressive GROCER

## The Case for Pallet-level Monitoring

Most cold supply-chain monitoring products monitor only the environmental conditions of the supply chain, rather than the condition of the product moving through it. That needs to change.

“For fresh food, end-to-end pallet-level data is essential for delivering freshness and safety,” asserts Peter Mehring, president and CEO of San Jose, Calif.-based Zest Labs. “Perishable products are constantly changing their state due to biological or chemical reactions. Trailer-only temperature recorders typically only reflect ambient temperature, which can be misleading, as pallet-to-pallet temperatures can vary up to 35 percent, and they don’t capture the product history before loading — [which is] critical to food safety and freshness.”

Acceptance testing, which captures only the current state of the product, doesn’t reflect the rate of change of aging, which means that it can’t reflect the remaining shelf life, according to Mehring.

“Pallet-level monitoring addresses all these shortcomings, and also provides comprehensive traceability, chain of custody, and source authentication,” he observes, noting that it also “provides complete product history to ensure delivered freshness and safety.”

As an example, if a supplier processing delay occurred, reducing shelf life, the affected pallets could be routed to a local customer with a shorter transit time. Also, when an in-transit temperature excursion affects pallets, they could be flagged upon arrival for cross-dock shipment, effectively accommodating for lost shelf life.

“With pallet-level monitoring, handling data can be directly translated into better decisions for routing and inventory management,” Mehring says, “proactively managing remaining freshness and food safety.”

