

CASE STUDY

Who's Minding the Store (Humidity)?

Keeping Shoppers Comfortable
& Display Cases Dry at FRESH THYME



Summary:

Fresh Thyme Farmers Market combines elements of a farmers market, a neighborhood store, and a natural food marketplace to form the grocery store of the future. Yet the HVAC system design wasn't removing enough humidity in an existing store.

Q4 Energy Solutions specializes in creative mechanical solutions for the supermarket and grocery segment, and is a multiple system supplier to Fresh Thyme. Scott Beckett, Q4 Principle, bringing decades of experience in such spaces, stated, "Dehumidification drives everything. When you get dehumidification right, you get refrigeration right."

Challenge:

A recently-opened Fresh Thyme store experienced unwanted condensation from high humidity inside the store, creating issues including:

- Fogged, wet, dripping refrigeration case doors did not show merchandise well
- Unattractive or unsellable products due to frost build-up
- Water condensate on deli glass display case and counters
- Shopper discomfort from cool, damp air

Solution:

Q4 Energy Solutions Inc. provided DryComfort dehumidification units. DryComfort by Q4 is a simple and cost effective manner to remove humidity from the store environment and supplies warmer, drier air into the cold aisle.

Result:

Units maintain the desired $<51^{\circ}\text{F}$ dew point, and the condensation problem is fully resolved.

Solving the dehumidification dilemma in a supermarket has been a real technical challenge and the current recognized standard processes to accomplish the goals are all very complex.

Q4 has worked closely with Innovent to develop an entirely new and innovative approach that has resulted in the introduction of Q4 branded DryComfort Dehumidification Solution.

That retrofit pilot project has proven successful in solving the condensation problem to such a degree that DryComfort units are now the basis of design for all Fresh Thyme projects and part of the prototypical design.

And in the ever-important business relationship, Q4 Energy Solutions has further established themselves as knowledgeable in the complex interaction of the supermarket mechanical eco-system.

