

## Gaining an edge by maximizing yields and quality of fresh produce

Nature Fresh Farms relies on PowerScale to make key real-time analytics and insights accessible where growers need them most.



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**Keith Bradley**

VP of Information, Technology and Security,  
Nature Fresh Farms

### Business needs

As Nature Fresh Farms doubled its greenhouse acreage and expanded its distribution over two years, the company wanted to move sensor data and high-resolution video as close to the edge as possible to enable growers to create optimal conditions in order to enhance produce quality and yield and maintain the highest levels of sustainability.

### Business results

- Delivers real-time data from light and chemical absorption to water usage.
- Provides insights at the edge to help growers increase quality and yields.
- 6x–12x faster uploading of high-resolution video images and other data.
- Collects sensor readings to help recycle 97% of water for sustainability.
- Ensure peace of mind through trusted data protection and security.

### Solutions at a glance

- [Dell PowerScale](#)
- [Dell VxRail](#)
- [Dell PowerProtect Data Manager](#)
- [Dell PowerProtect Cyber Recovery](#)

Nature Fresh Farms is one of the largest independent greenhouse produce growers in Canada — with operations that include vast greenhouses of up to 200 acres and distribution centers in Canada, the U.S. and Mexico. Crops include bell peppers, tomatoes and cucumbers, with strawberries recently added to the mix.

The company is bringing farming into the future and increasing yields and quality by applying artificial intelligence (AI), robotics and automation to more precisely control everything from light and chemical absorption to irrigation — from pollination to picking. To efficiently manage all this data, Nature Fresh Farms chose Dell PowerScale.

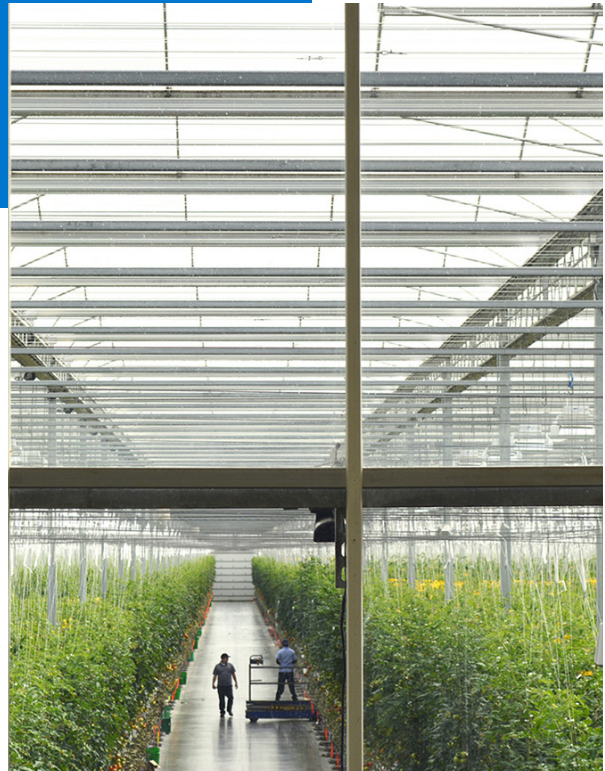
“The solution provides extreme scalability and performance,” says Keith Bradley, vice president of information, technology and security at Nature Fresh Farms. “We store the sensor data and video gathered from our greenhouses and packing lines on PowerScale, and then analyze it on our Dell VxRail using AI.”

## Data where growers need it most

Nature Fresh Farms places this vital data as close to the edge of the corporate network as possible — not in the core data center — to optimize responsiveness and reliability. The edge can be almost anywhere — in the greenhouses, distribution centers and even on the trucks — supported by an on-premises cloud configuration.

“We want our growers to be proactive in managing pests and diseases and increasing yields,” Bradley comments. “On the trucks, we’re able to monitor temperatures and track delivery schedules. PowerScale enables us to access data and analytics in real time — without the latency caused by sending it from the edge to the core or the cloud.”

The solution is easy to manage and scale out as Nature Fresh Farms’ unstructured data continues to expand. PowerScale stores not only the enormous volume of growing information processed daily, but also the company’s marketing data and other general files. And it’s all protected by Dell PowerProtect Data Manager for reliable backup and recovery and Dell PowerProtect Cyber Recovery in the planning stages for cyber resilience.



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In addition, PowerScale delivers exceptional performance to deal with large files. Remarks Bradley, “Previously, it took six to 12 hours to upload our video. PowerScale lets us continuously upload images and data throughout the day, so everything is instantaneously at the edge.”

## Committed to sustainability

Sustainability is a core value for Nature Fresh Farms. The company is committed to making the best use of every resource — from biodegradable produce packaging and the recyclable string used in its plants to the most precious resource of all: water.

“We recycle 97% of our water,” Bradley explains. “We have sensors that we call ‘spoons’ underneath each plant to measure how much water doesn’t get used, so we can make necessary adjustments to our irrigation.”

He continues, “Dell Technologies has been a great partner for us. They’re the first to say, ‘How can we make this better?’ They’re always open to new ideas and striving to improve our solutions.”

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