



CASE STUDY: Improved Visibility Reduces Spoilage

'With the EC12, remote monitoring, alarm and troubleshooting capabilities are greatly enhanced, which provides much greater confidence over cold and cool room operations, and storage and ripening results.'

Leading Post-harvest Researcher

Post-harvest research facility cuts spoilage and boosts efficiency



This Australian State Government research facility focuses on post-harvest ripening and storage of fruit and vegetables, with a view to defining best practice for the horticulture industry. Part of its research involves assessment of technologies for storage and ripening.

Unreliable logging and access

About 3 years ago, the research facility required a ripening controller which monitored ripening and other gas levels, as well as room and pulp temperature.

According to Phil Horton*, the leading researcher at the facility, the old system was adequate, but had shortfalls such as 'unreliable data logging and remote access.'

'Cost could be significant'

For Horton, the biggest issue was the risk of relay settings being changed in error by unskilled staff.

This had occurred more than once when he was off-site, and coldrooms had been rendered inoperable and produce spoiled. As Horton puts it: 'If that happened in a commercial setting, the costs could be significant.'

In his opinion, the problem was due to both view and configuration settings being on the main control display, and differences between this display and what remote users viewed via the user interface.

^{*} This researcher has asked us to change his name for privacy reasons. If you'd like to speak with him, please call Pacific Data Systems Australia on +61 7 3361 2000.





Specific requirements

Apart from resolving the shortfalls overleaf, the replacement system had to meet very specific requirements. It needed to be able to:

- Log and control ethylene and air temperature across 7 cold rooms
- Monitor relative humidity and pulp temperature
- Monitor and control oxygen and carbon dioxide for Controlled Atmosphere Storage
- Enable reliable remote access by 3G to view, upload data and control the system
- · Send alerts by SMS if pre-set control limits were exceeded, or compressed air lines were compromised.

Not a single incident

After just a few months, Horton saw a big difference with the FreshView EC12: not a single incident of accidental relay changes - which cause coldroom failures had occurred.

He puts it down to stronger security controls, better control panel layout, easier remote access and virtually no difference between the control panel display and the remote user interface.

Horton sums up the EC12 with these words: 'The EC12 is reliable, accessible and easy to operate, even for non-technical staff."

Improved research and development efficiency

The FreshView EC12's improved trouble-shooting and alarm systems, as well as enhanced control and monitoring capabilities go well beyond the facility's minimum requirements.

Horton concludes that this combination has had a positive impact on the facility's research & development efficiency—which must be good news for the horticulture industry.

'Very happy with performance'

Although Horton is currently looking at technologies for other applications. he says: 'We're not looking at other ripening and storage systems at the moment. We're very happy with the performance of the EC12."

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For more information and to download the EC12 product brochure go to

freshview.com.au

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'The EC12 is reliable, accessible and easy to operate, even for non-technical staff.'

Phil Horton* Leading Post-harvest Researcher

The chosen system: FreshView EC12 **Ripening Controller**

EC12 Controller featuring 12" central control touchscreen with separate view and configuration screens, which is duplicated in the remote user interface

Sensors / Transmitters for each of the monitored parameters

Transmitter Interface Modules that relay data from transmitters in each room

Digital Input / Output Module which interfaces between the EC12 Controller and sub-systems like doors, cooling, alarms and humidifiers

Gas Delivery Module which delivers gas to multiple rooms from a single source

Web Portal for remote access, control and data download via 3G or LAN using web-enabled devices.

