Keeping an eye on frost

The Christchurch Press, 12 September 2003

Tim Cronshaw

A Christchurch company has come up with a frost warning system that is so new Electronic Data Acquisition and Control (EDAC) has yet to come up with a name.

PHOTO: DAVID ALEXANDER

Henry Bettle with the frost monitor developed by Christchurch company EDAC.

The system has a small solar panel, up to three external temperature sensors that measure air temperature, a housing unit containing an inbuilt cellphone modem, and a short message service controller manufactured under licence by EDAC.

Probes can be placed up to 100m from the central control unit at tree-canopy level and are pre-set to ring an alarm when temperatures drop.

Seconds after this happens a text message is delivered to up to 12 cellphone-carrying growers, giving them the time and date of temperature and the location of the site.

The family company specialises in remote communication and control equipment, primarily for the agricultural industry.

EDAC's new system was the sort of protection needed by NZ orchardists who struggle with rising insurance cover after a run of damaged crops, said EDAC project manager, Henry Bettle.

"It can provide you with peace of mind in knowing your crops are threatened by the ravages of frost damage," he said.

Mr. Bettle said there was interest in the product in the North Island Kiwifruit industry after trials in Te Puke. As soon as a name was found it would be released to the horticulture market, he said.

Grape growing regions such as Marlborough is another market and there are plans for it to be sold overseas.

Power supply is by a solar panel or from the mains supply with battery backup. The housing unit is dust and rain proof. The system was created by EDAC designer Chris Butler in about a month using EDAC technology. The company saw a demand for the product. He said the solar panel was capable of storing more than three days of power.

"What we have found from talking to people is that farmers are a lot more technologically coherent and they are really jumping into technology with both feet."

The system can be connected to sirens, strobe lights and irrigation equipment.

Orchardists can call the unit for temperature readings by sending a question mark as a text message. The system can store over 11,000 temperature readings accessible by a laptop computer to calculate chill units necessary for fruit development.

EDAC plans to have a name and price for the system next week.
It is also developing a wireless irrigation unit compatible with its other systems.