

Maximising the benefits of high-resolution weather forecasts

Accurately predicting the weather over the coming hours to weeks has huge economic and environmental benefits, and enables more efficient decision-making. Particularly for reducing the impacts of weather-related hazards (such as drought, wildfire, flooding, storms and frosts) and managing water and nutrient resources.

Complex data turned into useful tools

Weather prediction models require large, multivariate datasets, which are run on supercomputers and produce terabytes of data every hour. These datasets can be managed so that location-specific forecasts are easily and instantly accessed.

For example, NIWA's web-based subscription forecasting and information service (incorporating the EcoConnect and FarmMet tools) gives farmers and growers direct access to 15 day-forecasts.

Battling the frost?

Users can set an alert when conditions pass (or are forecast to pass) a specified threshold, such as when the overnight temperature is likely to fall below freezing. This detailed site- and time-specific forecast information is what is needed for frost fighting over vineyards.

www.mpi.govt.nz/science-roadmap

