

# High Grade Ag/Hort Weather Station

This fully automated Campbell Scientific weather station has been designed to measure all of the parameters used for crop growth, including soil moisture and PET (Potential Evapotranspiration). This station has been installed widely throughout New Zealand for farmers who want ongoing, accurate and reliable climate data for their farm.

The difference between this, and our standard station is that we've beefed up the mast, added a stainless steel enclosure, increased the power supply and put in a higher grade rain gauge to give many years of service in the harsh New Zealand environment.

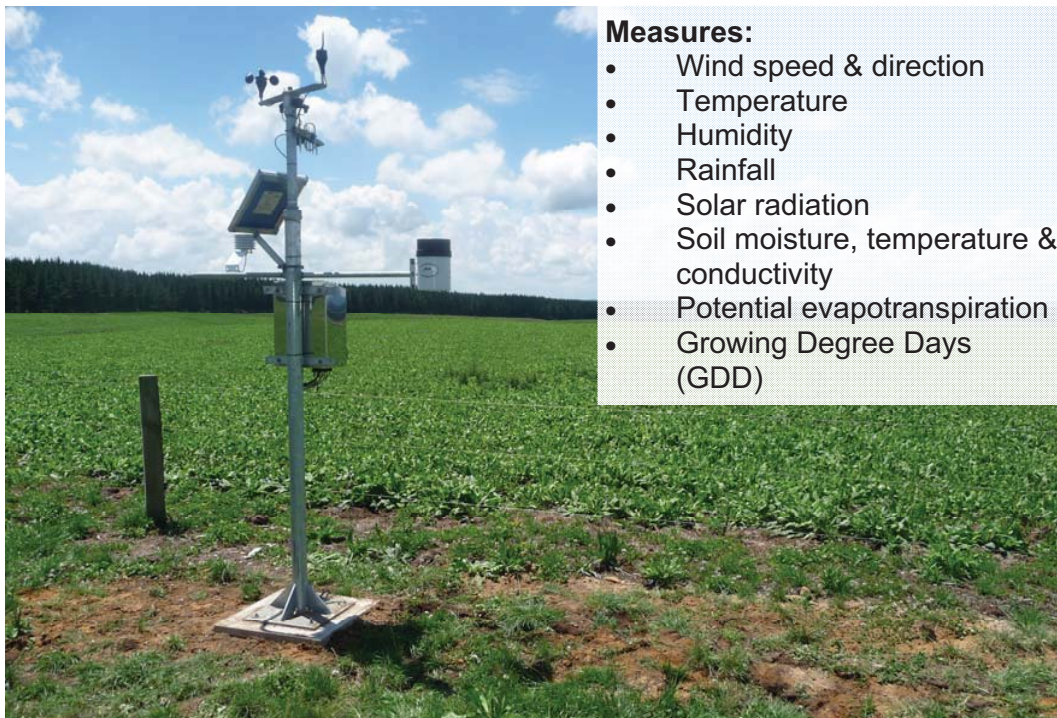
## Features include:

- Research grade Campbell Scientific electronic datalogger
- Data collection via cell phone telemetry
- Web display and smart phone App available
- Rugged stainless steel enclosure mounted on a 2.5m galvanised mast
- Published specifications available for all the sensors used

## Options include:

- Output from a third party flow meter (pulse output)
- Single or 3-phase power monitoring (using current transducers)
- Leaf wetness or additional temperature sensor
- Higher grade rain gauge
- Alarm output (SMS or phone call)
- Wireless transmission to office base
- Field installation

\* LoggerLink Mobile App requires telemetry data plan



## Measures:

- Wind speed & direction
- Temperature
- Humidity
- Rainfall
- Solar radiation
- Soil moisture, temperature & conductivity
- Potential evapotranspiration
- Growing Degree Days (GDD)

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# Specifications

## Sensors

	Range	Accuracy
• Temperature	-10 - +60° C	± 0.6 °
• Humidity	0 – 98%	± 3%
• Wind speed	1 – 96 m/s	< 0.1 m/s for the range 5 to 25 m/s
• Wind direction	0 - 360°, deadband 4-8 °	potentiometer linearity within 1%
• Solar radiation	0 – 2000W/m <sup>2</sup>	± 2%
• Soil moisture	0 – 60% VMC	± 0.5%
• Soil temperature	-10 - +50° C	± 0.2 °
• Rainfall	0 – 20mm/hr	± 1%

## Data Output

- Hourly (default, custom intervals possible)
- Mean temperature, humidity, wind speed, wind direction (unit vector), solar radiation, soil temperature, soil moisture, conductivity.
- Total rainfall, Potential Evapotranspiration, Growing Degree Day
- Data displayed on secure web page: [www.envirodata.co.nz](http://www.envirodata.co.nz) (annual fee applies)

## Datalogger

- Campbell Scientific CR310
- Data Storage >20 million points

## Power Supply

- 10W solar panel charging 12V SLA battery

## Mounting

- Weatherproof stainless steel enclosure for measurement electronics
- 2.5m mast, concrete in
- Wind and solar instruments mounted on cross arm
- Naturally ventilated radiation screen for accurate temperature measurements

