Weather monitoring stations – Keeping a weather eye on the horizon

# Scoring

Complexity (1 out of 3)

Price (1 out of 3)

Scale (1 out of 3)

For as long as humans have had agriculture, we have been at the mercy of the elements.

Wind can dictate how and when we can spray our crops, while rain informs how we handle water management and irrigation on farm. Temperature, humidity, and dew point all change our daily schedules.

Knowing what’s coming is key to improving yield and profitability on farm, and the best way to keep across climate developments is through a weather station.

# How

Weather stations are assemblages of various sensors and monitoring equipment that, when combined, provide a clear snapshot of the multiple factors affecting weather.

While different stations monitor different things, they generally include rainfall, wind speed and

direction, air movement, UV radiation, temperature, and humidity.

The stations can be set up at multiple points across your property to give a more comprehensive picture of how weather systems are interacting. This is especially important if your property has several altitudinal gradient changes, such as peaks and valleys, as these will interact with weather systems and change the data.

Some high end models come with data linking that transmits to a centralised hub, where you can then analyse the data using digital software.

Other additions can include radiation shielding to improve accuracy, and solar power and battery assemblies.

# Why

While we can tell that it’s raining just by looking outside, we need proper equipment to test for more imperceptible environmental changes.

Humidity and dew point can directly impact the way that plants react to nutrients, while they can also change the needs of animals and livestock. Temperature, similarly, can be a major factor in the wellbeing of the living things under our care.

Even knowing exactly how much rain is falling, rather than just guessing, is important for irrigation plans and scheduling.

Weather stations, when tied to other monitoring systems, form part of a broader Internet of Things on-farm, creating a smarter, more robust, and more agile farm.

The advantage of knowing local weather systems means that you no longer need to rely on third party data – you can see what’s affecting your farm, and react accordingly.

# Benefits

## Integrated information

* See all weather factor data in one place.

## Rapid response

* Real-time data keeps you informed about what’s happening on farm.

## Cost effective

* Weather stations are inexpensive and easy to set up.

# Getting started

1. Obtain weather stations from reputable suppliers.
2. Install the stations as directed.
3. Set up digital software integration and monitor as needed.

# More Info

For more information on how you can deploy this technology on farm, give us a call on 136 186 or visit agriculture.vic.gov.au.

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