



Mid North
MESONET

PILOT AUTOMATIC WEATHER STATION NETWORK FOR THE MID NORTH



MEDIA RELEASE

Friday, August 9, 2019

Weather stations a game changer for Mid North farmers, if you get the drift

A network of 40 automatic weather stations across the Mid North will be a 'game changer' for local farmers assessing suitable chemical spraying conditions and avoiding temperature inversions, or other adverse weather conditions for spraying.

The Mid North Mesonet is available to all farmers, and a series of free workshops will be held across the region throughout August and September to assist local farmers to access and interpret the live data generated.

The Mesonet project is a \$1.4 million-dollar state-of-the-art automatic weather station network designed to observe localised meteorological phenomena, in particular, the presence of adverse conditions for spraying.

Some of the information currently available from each station includes temperature, rainfall, windspeed, delta T, relative humidity and grass fire danger index.

With weather stations located at sites from Jamestown and Port Pirie, across to Mount Bryan in the north, in and around the Clare Valley and almost to Two Wells in the south, the network provides highly-accurate and targeted readings via a custom-built, user-friendly website.

Mid North Mesonet committee member Peter Cousins, who was instrumental in the development of the project along with consultant Mick Faulkner, said the data available through the network was a "game changer" for local farmers.

"It will be the first time that anyone will be able to accurately measure a temperature inversion," he said.

"Traditionally farmers have guessed when there's an inversion, but generally it's very hard to pick because you can't see it.

"It gives growers real-life, accurate data 24-hours a day on their mobile devices, to know when to spray and when not to spray.

"We don't want to stop farmers from spraying, we want them to be armed with accurate data and weather information to ensure they are spraying at the right times.

"This is an absolute game changer for Mid North farmers."

Minister for Primary Industries and Regional Development Tim Whetstone said the State Government was proud to support this initiative providing producers with essential, accurate weather data and warning systems of the presence or potential conditions likely to result in spray drift.

“This critical investment will ensure our producers have the necessary data to make responsible, informed decisions in managing their properties into the future,” Minister Whetstone said.

“The State Government is pleased to assist our regional food and wine producers to have access to the technology they need to continue their great work.”

Temperature inversion occurs when air temperature increases with height from the ground surface, which is the opposite of normal conditions (i.e. the temperature profile is 'inverted').

This results in a layer of cool air being trapped below warmer air, and this layer of air is often but not always still. The height above the ground where the temperature stops increasing and begins to decrease is the top of the inversion layer.

Surface temperature inversions generally occur overnight, but can form in late afternoon and can persist into the next day.

If pesticides (e.g. fungicides, herbicides, insecticides) are sprayed during an inversion, fine droplets of the chemical can be concentrated in the cool layer near the ground and isolated from the surrounding weather conditions.

The direction and distance which the droplets then move becomes unpredictable and the chemical may be transported away from the target area, this is referred to as spray drift.

While there has been a concentrated education program to help spray operators minimise spray drift, (including assistance in achieving optimum droplet size, correct choice of nozzle and operating pressures), Mid North Mesonet now provides farmers real-time access to accurate weather data and systems that warn of the presence, or potential, of conditions likely to result in drift.

The Mesonet network has been developed in partnership with Primary Industries & Regions SA, Hart Field-Site Group, Ag Excellence Alliance, and support from Member for Frome Geoff Brock.

A series of 13 free workshops will be held in the Mid North to help local farmers access and interpret the valuable Mesonet data.

Workshops will be held on August 28 at Lochiel; August 29 at the Hart Field-Site, Spalding and Booborowie; August 30 at Balaklava via the Halbury/Whitwarta Ag Bureau; September 2 at Crystal Brook, Georgetown and Jamestown; September 3 at Hilltown, Farrell Flat and Marrabel; September 5 at Clare; and September 6 via the Mallala Ag Bureau.

Mid North Mesonet will be officially launched at the Hart Field Day on Tuesday, September 17.

For more detail take a look at the Hart Field-Site Group website:

www.hartfieldsite.org.au

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For the first time, farmers will be able to accurately measure suitable weather spraying conditions through Mid North Mesonet, a network of 40 automatic weather stations to help farmers avoid temperature inversions, or other adverse weather conditions for spraying.

Above right: With one of the automatic weather stations at Pinery are members of the technical and project team, Omid Moghimi, Alan Phelps, Niran Pelpola, Warwick Grace, Dana Galbraith, Damon Grace, Mick Faulkner, Mark Stanley and Peter Cousins.