



## WAND FACT SHEET

### The impact of spray drift:

- The CRDC Grower Survey 2023 found that 48 per cent of growers were affected by spray drift in 2022-23. On average, 48 per cent of their crops were affected.
- The average cost of this drift to each affected grower was \$254,000.
- Spray drift is not just a problem for cotton production. Drift onto both summer and winter broadacre crops remains a hidden cost to the industry with no hard data available as to the impact on these crops or the broader environment.
- With destination markets testing for an increasing number of pesticide compounds, the risk of exceeding maximum residue limits (MRLs) as a result of spray drift with the application of late season crop protection products, such as fungicides and crop desiccants, is becoming a significant threat to Australian export markets.

### The importance of WAND:

- The WAND system is a world-first, Australian-developed technology and has proven to be a game changer for growers and spray operators.
- It provides real-time weather data, updated every 10 minutes, able to distinguish between hazardous and non-hazardous surface temperature inversions. Its 'nowcast' feature, also updated every 10 minutes, predicts the presence or absence of a hazardous surface temperature inversion occurring within the coming two hours.
- The nowcast feature enables applicators to make an informed decision as they are approaching the completion of a tank load as to if they refill and continue or knockoff and wait for conditions to improve.
- WAND isn't designed to close the spray window, but rather has opened the spray window taking the guesswork out of when it is suitable or not to spray based on the presence or absence of a hazardous surface temperature inversion.
- Data gathered from WAND in its first year of operation shows it has opened up an additional four hours of spray window every day, when compared to stopping once a simple temperature inversion has formed.
- For more information about hazardous surface temperature inversion, visit: <https://grdc.com.au/resources-and-publications/all-publications/factsheets/2022/hazardous-inversion>
- WAND provides operators with some of the critical information to inform a spray operation, but it is also important that operators consider all aspects of spray decision and operate in accordance with label requirements.
- Data provided by the WAND network is advisory and should be utilised by the applicator when determining if weather conditions are supportive of spray application and if the label requirements can be met.

### The changes/advancements coming for WAND:

- Users have been requesting improvements to the network, and we have listened.
- Coming this season, we are launching a premium version of WAND. There are two major advancements in features coming this season.
- From January, we are introducing
  - A new 24-hour forecasting feature, which extends the hazardous inversion forecast from the current two hours, out to 24 hours.
  - Historical weather data graphs, which extends their visibility out from the current 48 hours to two years.
- To showcase the benefits of these two new features, all WAND users will be able to access them on a trial phase for two months.



- From March, growers and spray contractors who wish to continue using this premium version with these new advanced features will be invited to sign up for a WAND subscription, starting at \$100 per year.
- Importantly, the critical features of WAND – the real-time weather, including the detection of hazardous surface temperature inversions, and the ‘nowcast’ prediction within the coming two hours – will continue to be free for all WAND users.
- From March, the free version will also limit growers to viewing their closest three WAND towers.
- This is a crucially important step forward for WAND as it transitions from being research and development supported by GRDC and CRDC, to a commercialised product delivered by Goanna Ag for the benefit of the grains and cotton industries. Ensuring it is self-sustaining means vital research and development levy funds can be reinvested by GRDC and CRDC in important new projects for growers.

#### **Farming groups call on growers to participate**

- Local grower groups are rolling out an active communications campaign on WAND and how growers can use it to identify hazardous inversion conditions.
- Stop Off-target Spraying – or SOS – groups, SOS works to bring about improvements in on-target application efficiency to reduce spray drift.
- SOS groups are located in cotton growing regions of NSW. See full list of groups, and relevant contact details, here. <https://sos-nsw.com/>