Ag Drones – The eye in the sky

# Scoring

Complexity (2 out of 3)

Price (3 out of 3)

Scale (2 out of 3)

Automation is key to conserving labour and building a robust and resilient agricultural industry here in Australia. From spraying to scanning, drones can help out on farm.

Ag drones are primarily used to spray safely and uniformly, with an emphasis on precision and accuracy.

Observation and measurement go hand in hand, and it is important that farmers and producers are able to accurately assess how well their farm is operating, in order to make changes that can improve yield and minimise risk.

Ag drones can also be used to provide a bird’s eye view of a farm, making sure you can clearly see what’s working – and what’s not.

# How

Ag drones are unmanned vehicles that can be equipped with a range of support devices to enable them to carry out various tasks on farm.

Unmanned ground vehicle functions include precision plant protection, efficient spreading, intelligent mowing, transportation of agricultural materials, and epidemic prevention.

For aerial drones, one of the most easily applicable tasks is spraying. Spraying pesticides, fungicides, or any other chemical compound can provide a risk to humans, as even the best respiratory protectors are not infallible.

Drones prevent respiratory injury or irritation by carrying out the spraying autonomously. They can either be remotely controlled via a digital platform, or they can be set to carry out tasks according to pre-programmed instructions.

Other drones can mount a high-resolution camera on their fuselage. This camera can then be used to take high-resolution image scans of paddocks, fields, roads and water/landscapes. These field survey drones can generate high-resolution and detailed models of difficult to access areas. Drones for agriculture allow the quick and safe delivery of surveying data for field use.

# Why

Ag drones allow users to spray safely and efficiently with uniformity and precision. Arm-mounted

rotary atomising spraying systems enable these agriculture drones to assist in reducing pesticide

use and water waste.

They provide safety and security for farm workers who would otherwise be exposed to health risks posed by atomised pesticides.

These drones save time and labour, and they can be deployed in areas that would be prohibitive for human workers – such as aerial drones being used to assess damage after a flood or landslide.

The data gathered from these drones can be sent to centralised digital dashboards, where it can then be actioned by farm workers. This ensures a constant flow of usable information is coming to farmers where they need it, when they need it – which is especially important in a time-critical situation.

# Benefits

## Labour saving

* Drones can do the hard work so your workers are not at risk

## Rapid response

* Get real-time data and analysis from all over your farm, 24/7

## Accurate

* Sharper than the human eye, and twice as efficient

# Getting started

1. Obtain aerial/ground unmanned vehicles and control software from reputable suppliers.
2. Using setup guides, install programmable software that sets up routes and guidance for all ag drones.
3. Set drones to work and monitor from centralized dashboard.

# 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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