



## PRODUCT DETAILS

The i4M Spreader controller app allows farmers to carry out variable rate fertiliser prescription plans using a belt type spreader. The system consists of a tablet computer running the i4M app that connects to an electronics module through a Wi-Fi network.

The electronics module is attached to an actuator, drive and sensor network fitted to the spreader. As the spreader travels across the field, the app determines the required application rate from the prescription map adjusting the conveyor belt speed to set and maintain the fertiliser rate.

Prescription map files are transferred to the tablet via i4M cloud server. The user simply places the prescription map files onto a web page, adding metadata such as field name and selecting the required map layer. The cloud server processes the map and makes it available for download on the tablet.

Connecting loadcells to the i4M controller, allows precise control of application rates with fertiliser calibration factors fine tuned to within 1% of the target rate.

web : [i4m.tech](http://i4m.tech) email : [admin@precisionag.com.au](mailto:admin@precisionag.com.au)

## PRODUCT BENEFITS

- Cost Effective Variable Rate Solution
- Simple transfer of Prescription Maps
- Fast learning curve
- Tractor Independent, runs on any tractor
- Simple User Interface and machine calibration
- Minimise Fertiliser wastage
- Improves on-farm efficiency

“The i4M App and prescription map transfer system are easy to use. The accuracy of the calibration means no more under or over application of fertilisers”

- **Broden Holland, Young NSW, Australia**

“My Marshall Multispread and i4M variable rate control system is second to none, providing me with an accurate, easy to use, cost saving spreader system”

- **Graham Ralph, Dowerin WA, Australia**



1. Loadcell Weighing 2. PWM Hydraulic Drive 3. Door Actuator 4. Speed Sensors



# FERTILISER SPREADER CONTROLLER

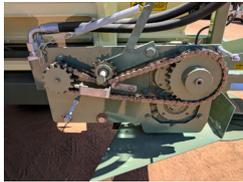
## RATE CONTROL

Application Rate is controlled by varying hydraulic flow to the conveyor drive using a PWM valve. As the target rate and ground speed changes, the belt speed is adjusted to set and maintain the target application rate.

The i4M controller is fast to respond to changes in application rate and drive settings can be fine tuned to suit different tractor pump outputs.

Application Rate Ranges of between 0-5000 kg/ha for Lime and 0-250 kg/ha for granulated products are possible at a set door opening and spread width.

When not using a prescription map to set the application rate, up to 3 pre-defined rates can be programmed, allowing the operator to change rates on the go with a press of a button.



## FERTILISER CALIBRATION

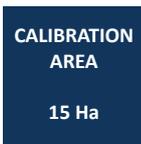
Fertiliser calibration can be carried out using a static or field test. When running the static test, a small amount of fertiliser is discharged from the spreader back onto the fertiliser pile.

The field test consists of spreading a quantity fertiliser over a larger area to improve calibration accuracy and it is possible to fine tune the calibration over multiple loads if loadcells are fitted.

For both the static and field test, the calibration sample procedure is used. The user simply taps start a new sample, runs the spreader and enters the amount dispensed. The app automatically calculates the fertiliser calibration factor at the end of the test.



START  
8567 kg  
Cal Factor : 750



END  
7005 kg  
New Cal Factor : 781

Target Rate : 100 kg/ha

## FERTILISER DATABASE

Calibration factors for up to 10 different fertilisers can be saved within the i4M database. Storing calibration factors for future reference decreases the amount of time required for calibration when switching between fertiliser types.



A maximum door opening for each fertiliser type can be set to assist in the accurate metering of faster flowing granular fertilisers from the spreader conveyor.



## PRESCRIPTION MAP TRANSFER

Each i4M spreader controller has free access to the i4M server for the transfer of prescription maps to the tablet. Unlock codes are not required.

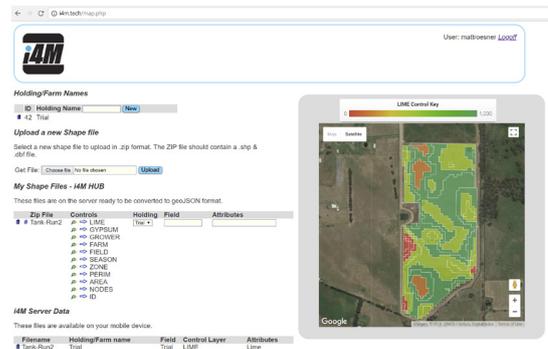
The user can create an account on the i4M server in minutes, for a simple transfer of map data.

Prescription maps in the standard shape file format, can be uploaded on the i4M webpage with ease.

The uploader allows the user to create a new name for the map, to simplify paddock operations.

After the prescription map data is processed it is available to download on the tablet.

With a push of a button the operator can be spreading a variable rate map in minutes.



## DEVICE REQUIREMENTS

### Android

10" Screen  
Android version 8 and above  
Minimum Storage : 32 GB  
3/4G Sim Card\*

### Apple iOS

iPad Mini or iPad  
iOS 10 and above  
Minimum Storage : 32 GB  
3/4G Sim Card\*

Sim card recommended when using prescription map transfer features in field.

Cab charger and RAM mount are recommended for installing tablet in the Tractor cab.

## HARDWARE SPECIFICATIONS

i4M Controller is mounted on the front of the spreader. Electronics are enclosed in IP67 enclosure to protect from moisture and dust.

Clean 12V power supply from the tractor is required to power the controller electronics. A single status LED is used to display the controller state.

Heavy duty connectors are bolted in the PCB header to ensure protection from dust and moisture.

A generic spreader wiring harness is available to suit most belt spreader models.



i4M Spreader Controller