



**Prescription Maps
Version 2 Server**



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AGRONOMICS AUSTRALIA

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**Operators Guide i4M Maps
Tablet Type iPad and Android
Version 02**

Foreward

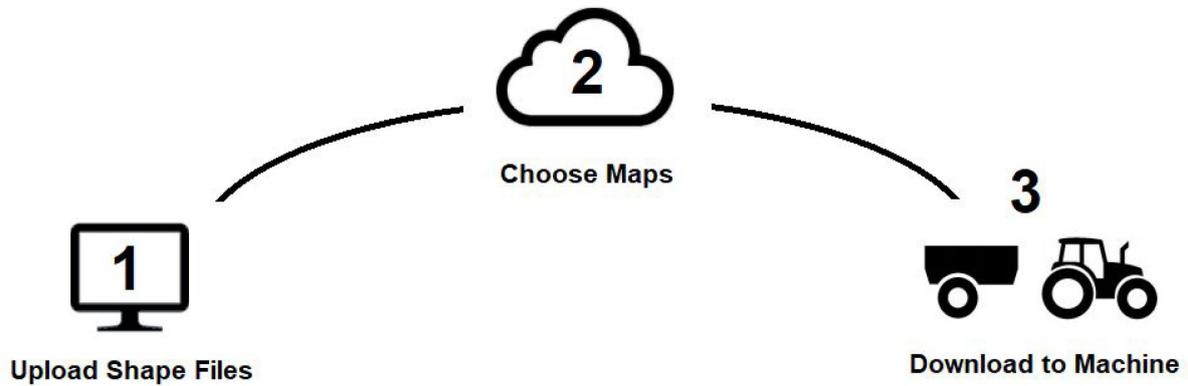
This is a basic guide for i4M Map Loading using the i4M Cloud Server only.

This guide provides supplementary information only. Please see other relevant documents for Machine Operation and use of i4M Mobile Apps.

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Overview



- Before you start, you need prescription maps in shape file format.
- i4M does not create shape files, other 3rd party Precision Farming software is used to create prescription maps.
- Your cropping consultant may provide you with shape files, or they can upload directly to your i4M cloud account

Shape File Requirements

- Use ESRI shape file format
- Coordinate Reference System is WGS84
- Maximum number of polygons is 300
- Where possible, dissolve polygons to reduce numbers and simplify the map, particularly if using gridded data to create the prescription map.

Setup i4M Account

- Using any web browser (Google Chrome, Microsoft Edge or Mozilla Firefox), go to **server.i4m.net.au**
- Click on Create User
- Enter your user credentials, your password must be at least 8 characters and be a mix of lower and upper case and numbers.
- Click Create

i4M Cloud Server Interface

The screenshot shows the i4M Cloud Server Interface. At the top, a blue header contains the i4M logo on the left and the text 'Rosa Glen Farm | Edit | Log off | User Guide' on the right. Below the header is a 'Shapefile' section with a dashed blue box containing the text: 'Click to choose shape or zip files to upload, or drag-n-drop them here.' Below this is a 'My Shape files - i4M Hub' section with a 'Filter:' input field. Underneath is a form with 'Farm Name' (a dropdown menu showing 'Bridgetlands') and 'Attributes' (an input field). Below the form is a 'Field:' input field, a location pin icon, and a 'Send To i4M' button. At the bottom of the sidebar is an 'i4M Server Data' section with another 'Filter:' input field. The main content area is a large grey rectangle with the text: 'Upload shape and DBF files and select control layer to preview data in google maps.' To the right of the main content area is a '5. Map View' callout box. At the top right of the interface is a '6. User Account settings and link to User Guide.' callout box. On the left side, there are four callout boxes: '1. Click here to choose a shape to upload, or drag and drop file here' pointing to the dashed box; '2. Uploaded files are shown here' pointing to the area below the 'My Shape files' section; '3. Shape File Attributes Input, Filter and Map tools' pointing to the form; and '4. List of Maps available for download on mobile device' pointing to the area below the 'i4M Server Data' section.

1. Click here to choose a shape to upload, or drag and drop file here

2. Uploaded files are shown here

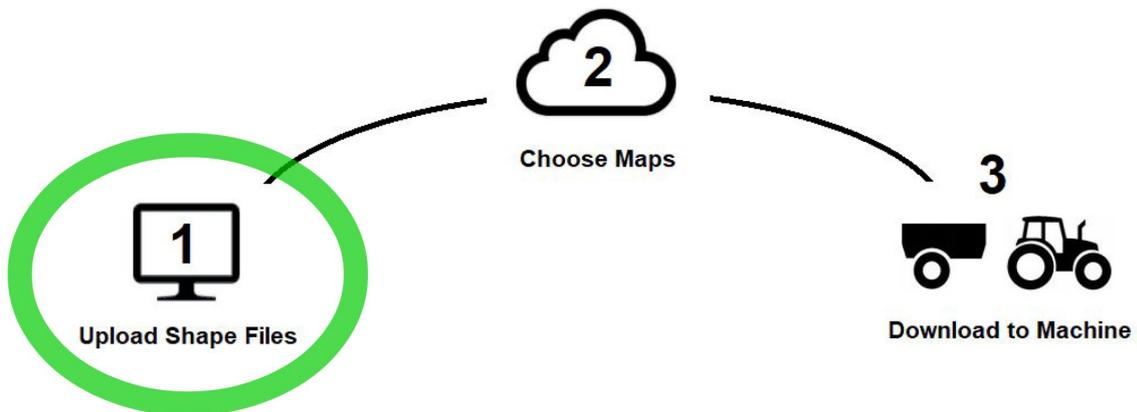
3. Shape File Attributes Input, Filter and Map tools

4. List of Maps available for download on mobile device

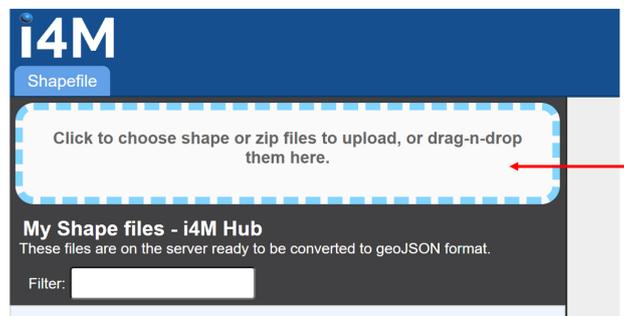
5. Map View

6. User Account settings and link to User Guide.

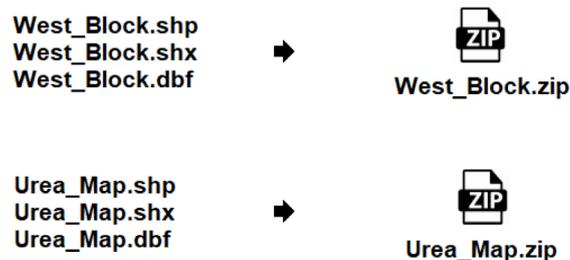
Upload Shape Files



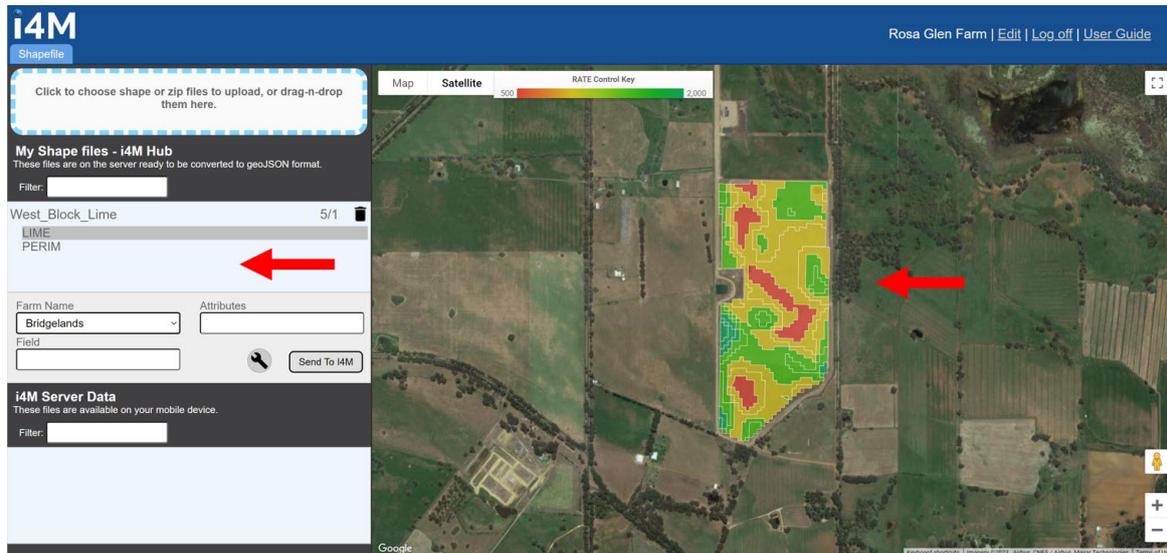
- Create the shape files using a Precision Farming software package on a PC, Mac or Tablet
- There are three files exported from the PF software that contain the prescription map data – a shape file (.shp), a database file (.dbf) and an index file (.shx)
- The shp, shx and dbf files must not contain any special characters such as : / \ : * ? " < > | ! @ # \$ % ^ &
- On the i4M cloud server, click the white box on the top left to choose the files to upload. Select the .shx, .shp and .dbf. Multiple maps can be uploaded simultaneously, just select all the relevant .shx, .shp and .dbf files. If a file is missing from the selection process, the server will alert the user and selection process will need to be repeated.



- Alternatively, to simplify the file selection process, the .shp, .shx and .dbf files can be contained in separate zip folders as shown below. Upload the zip folder instead of the individual .shx, .shp and .dbf files.



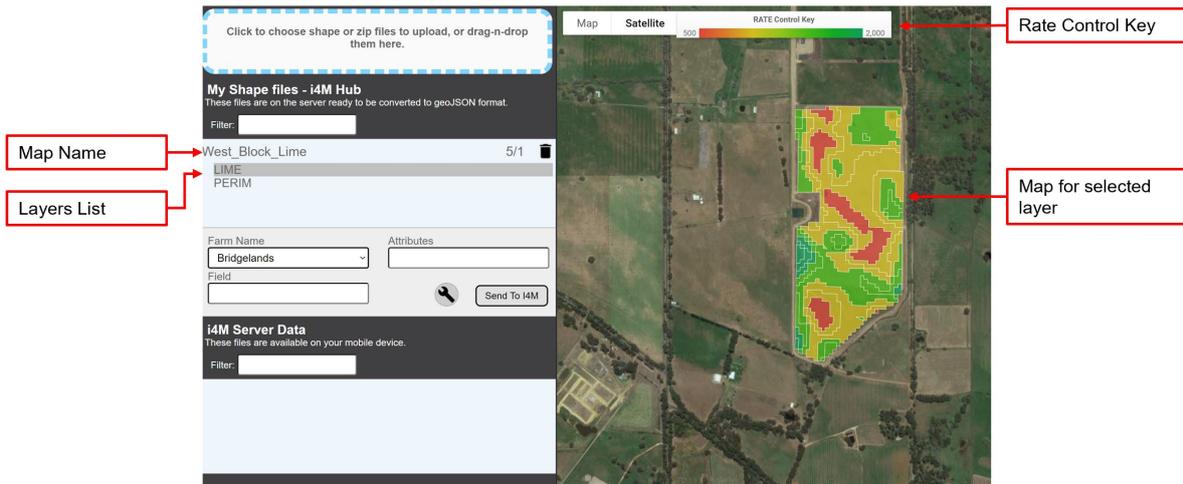
After maps are uploaded, they will appear in the list panel. The map layer selected in the list is displayed on the map view.



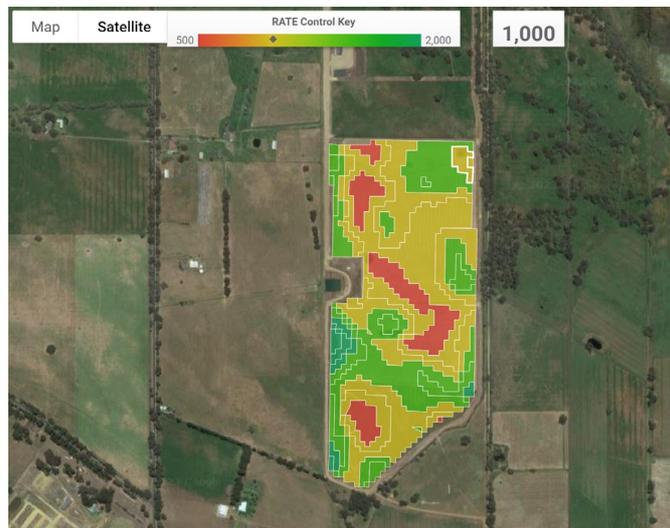
Select Maps and Layers



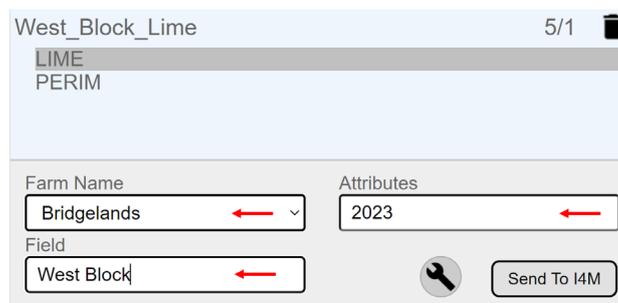
- A shape file can have many map layers, the prescription rates will be contained in a single layer. The i4M cloud server automatically searches the map layers to find the prescription layer, however in some case more than one layer maybe detected as a possible prescription rate layer.
- The user needs to select the correct rate layer.
- The detected layers are shown directly under the map name.
- Clicking on a layer, displays the map in map view and the RATE control key which displays the range of rates relevant to the selected map layer.



- In the map view, you can zoom in and out to view the prescription map layer. When moving the mouse over the map zone, the application rate for the zone is displayed next to the Rate control key.

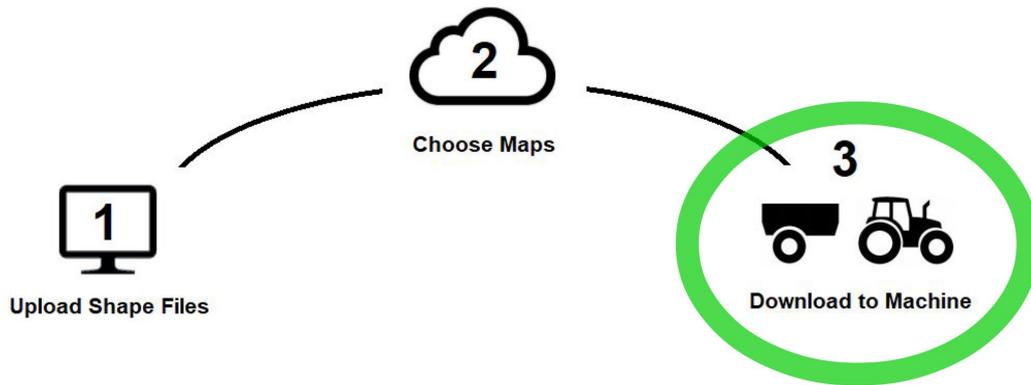


- After selecting the rate layer, you can enter the farm name, attributes and field which help classify rate maps on both the i4M cloud server and on the i4M tablet app. The farm name will automatically display, if there are multiple farms associated with the user account, use the pull down menu to select the relevant farm name.



- After entering the farm name and any attributes and fields, click on **Send to i4M** to send the map to the i4M tablet app.

Download to Machine



- A list of maps available for download on the i4M tablet app is shown along with the map area and product total.
- Refer to your relevant i4M Machine Controller Operators Manual for more details on how to download maps onto your Tablet.

i4M Server Data

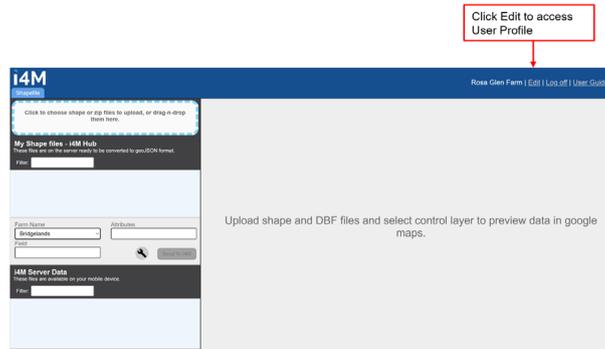
These files are available on your mobile device.

Filter:

| | | |
|--|-----|--|
| West_Block_Lime | 6/1 | |
| Farm: Bridgelands, Field: West Block, Attribs: 2023, Area: 25.788Ha, Total Spread: 29217.905kg | | |

User Profile / Connecting with Agronomist

- User information such as email address, password, company and farm name can be accessed from the User profile page.
- To access the user profile page, click on Edit.



- To enable your Cropping Consultant or Agronomist to access your i4M account to upload you prescription maps, enter their email address in the Agronomist email box on the User Profile page.
- Your Cropping Consultant or Agronomist must contact i4M support to setup an Agronomist level account. Contact admin@precisionag.com.au for more detail on Agronomist support.

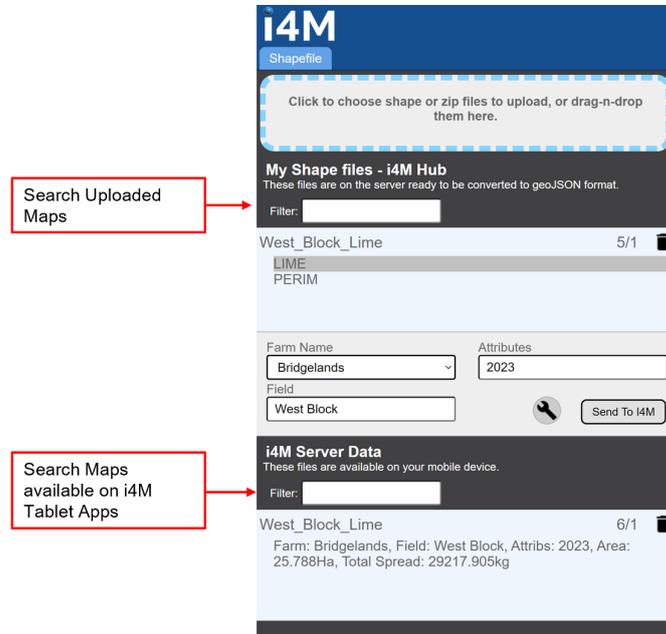
The screenshot shows the 'User Profile' form in the i4M application. The form is displayed over a satellite map background. The form has a title 'User Profile' and a 'Close' button in the top right corner. The form contains several input fields and buttons:

- Email:** mroesnerdesign@gmail
- Password:** [Empty field]
- Confirm Password:** [Empty field]
- Company:** Rosa Glen Farm
- Farm Name:** [Empty field] with an 'Add' button
- Bridgelands:** Bridgelands with a trash icon
- Agronomist Email:** [Empty field] with an 'Add' button

An 'Update' button is located at the bottom left of the form.

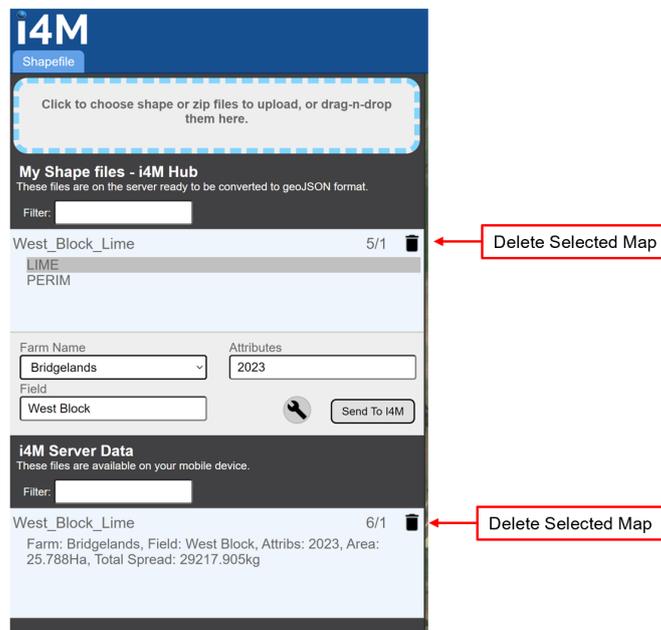
Map Search Function

- To help find maps, enter a map name into the filter box. Maps that meet the search criteria will be displayed in the list.



Map Delete Function

- Click on a map in the list and then click on the trash can to delete it.

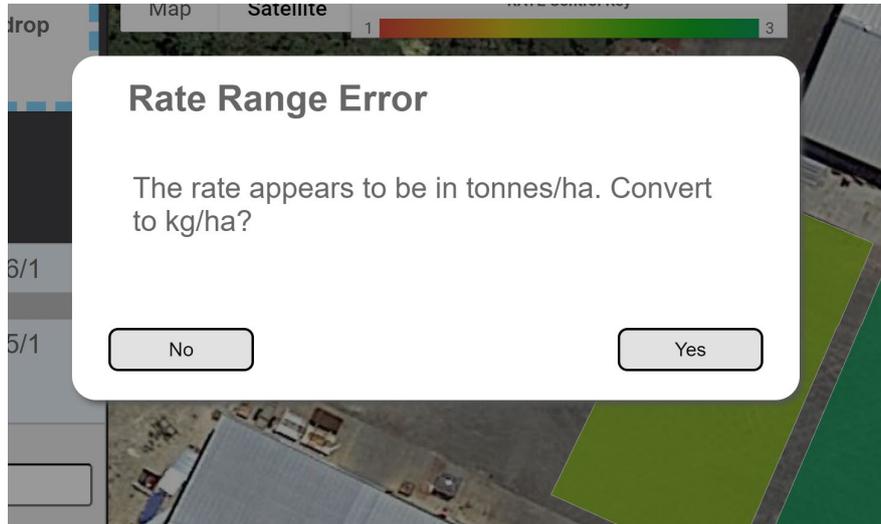


Map Editing Functions

Function 1 : Convert from tonnes/ha to kg/ha

When uploading a map or selecting a layer, the i4M cloud server will check that the rates are in kg/ha. If a layer is detected in tonnes/ha, the user will be asked if they wish to convert to kg/ha.

Click No if the prescription map rates are in L/ha, for use with the i4M Spray controller, or Height in the case of the i4M Depth Command application.



Function 2 : Dissolve Polygons

Some Prescription farming software produces maps that are in gridded format, that is the maps contain a large number of small grid cells. Gridded shape files lead to large file sizes which slow download speeds and a reduction in the machine control performance. The i4M cloud server detects gridded shape files and prompts the user to dissolve the grid into polygons.



Click Dissolve to reduce the map size.

Note : Dissolving a map does not effect the accuracy of the prescription map zones or application rates.

Map Migration Tool

The Map Migration tool is used to transfer maps from the Version 1 i4M Cloud Server to the new i4M Version 2 Cloud Server.

- To use the map migration tool, you must have an account setup on the V1 i4M cloud server with a valid username and password.
- If you can't remember your username and password, go to the V1 i4M Cloud server, <http://i4m.tech/login.php> and click on Forgot your username or password. Follow the prompts.

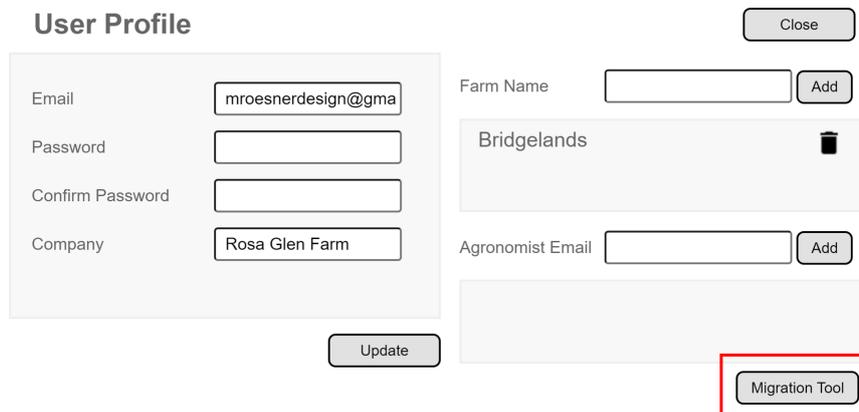
Migration Process

Step 1 : Go to the V2 i4M Cloud server, <http://server.i4m.net.au/> and enter your log in details

Step 2 : Click Edit.



Step 3 : Click Migration Tool.

A screenshot of a 'User Profile' form. The form is divided into two main sections. The left section contains fields for 'Email' (with the value 'mroesnerdesign@gma'), 'Password', 'Confirm Password', and 'Company' (with the value 'Rosa Glen Farm'). Below these fields is an 'Update' button. The right section contains fields for 'Farm Name' (with an 'Add' button), 'Bridgelands' (with a trash icon), and 'Agronomist Email' (with an 'Add' button'). Below these fields is a 'Migration Tool' button, which is highlighted with a red rectangle.

Step 4 : Enter the V1 Cloud Server user name and password, then click Migrate Old Data.

Migration Tool

Use this tool to migrate shapefiles from the old server.

Username

Password

Enter your previous server login details

Step 5 : After the Migration Tool transfers the old data, click Close. The maps that were migrated from the old server will be displayed under the i4M Server data panel and are now available to download to your mobile device.

i4M Server Data
These files are available on your mobile device.
Filter:

| | |
|--|---------------------------------------|
| GR Th Field: GR, Attribs: Thorium | 16/1 <input type="button" value="🗑"/> |
| Bridgelands Field: GR, Attribs: Potassium | 16/1 <input type="button" value="🗑"/> |
| Bridgelands | 16/1 <input type="button" value="🗑"/> |



Prescription Map – Rate Editing

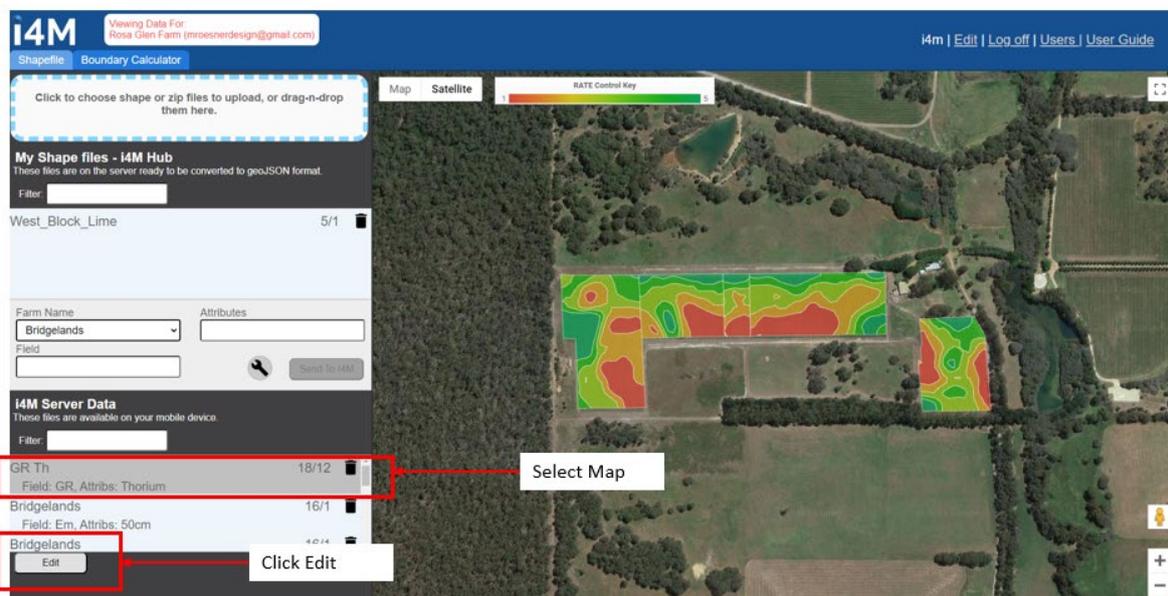
The rates within prescription map zones can be edited to better suit seasonal conditions or the quantity of inputs available. The rates in map zones can be edited in three ways :

1. **Select all zones with the same rate.** For instance, all 50 kg/ha rate zones can be selected and the rates within these zones changed to a new rate or by a set percentage;
2. **Select individual zones.** Click on a zone on the map and manually change the application rate;
3. **Change Whole Map.** This option changes all zones in the map to a single rate or change all zones by a percentage.

To edit rates, follow the steps below.

OPTION 1 : SELECT ALL ZONES WITH THE SAME RATE

- Select a map from the list and click on edit.



- Choose, Select all zone with the same rate and then click on a zone in the map view. Selected zones are highlighted in blue.
- Change the rate for the selected zone to a new rate or by a percentage. Click Change to update the map. The updated version is displayed on the map panel.



OPTION 2 : SELECT INDIVIDUAL ZONES

- Select a map from the list and click on edit.



- Choose, Select individual zones and then click on a zone in the map view. Selected zones are highlighted in blue.
- Change the rate for the selected zone to a new rate or by a percentage. Click Change to update the map. The updated version is displayed on the map panel.



OPTION 3 : CHANGE WHOLE MAP

- Select a map from the list and click on edit.



- Choose, Change Whole Map.
- Change the rate for the selected zone to a new rate or by a percentage. Click Change to update the map. The updated version is displayed on the map panel.



RESETING MAP, CLEAR SELECTION AND SAVING CHANGES TO PRESCRIPTION MAPS

- Resetting a map returns all edited zones to the original application rate.
- Clear Selection, deselects all zones that have been selected for editing
- Cancel, returns the user to main map screen
- Save , updates the map to the new prescription rate zones

The screenshot displays the i4M software interface. The top navigation bar includes the i4M logo, the user's email address (mroesnerdesign@gmail.com), and links for 'i4m | Edit | Log off | Users | User Guide'. Below the navigation bar, there are tabs for 'Shapefile' and 'Boundary Calculator'. The main panel is titled 'Selection Mode' and contains a dropdown menu set to 'Change whole map', with subtext indicating that changes apply to the whole map and all zones are selected. Below this are input fields for 'Rate' and 'Percentage' (set to 0), each with a 'Change' button. At the bottom of the panel are buttons for 'Reset Map', 'Clear Selection', 'Clear selected zones', 'Cancel', and 'Save'. A 'Remove original map' checkbox is checked. To the right, a map shows a color-coded prescription rate overlay on a satellite image of a farm. A 'RATE Control Key' legend is visible above the map. Callout boxes with red arrows point to the 'Reset Map' button (labeled 'Reset the map to the original rates'), the 'Clear Selection' button (labeled 'Clear selected zones'), the 'Cancel' button (labeled 'Cancel editing and return to main screen'), and the 'Save' button (labeled 'Saves changes, return to main screen').

Checking the Remove original map check box, deletes the original version of the map from the i4M server. To reload the original map, re-upload the original shape file and step through the upload process. If the Remove original map checkbox is off, a copy of the original map is retained on the i4M server.

IMPORTANT : DOWNLOAD YOUR MAPS TO THE TABLET AFTER COMPLETING THE MAP EDITS