User Manual
CM1x

Part No.- 92213174

Contents

1 Telematics – Over view....4

1.1 Troubleshoot - Start-up test....4

1.2 Light emitting diode (LED) status indicator....5

2 Purpose....6

3 Scope....6

4 Over view....6

5 Prerequisite....6

6 User Registration....6

6.1 Welcome Email....6

6.2 Profile Registration....7

6.2.1 User data....7

6.2.2 Business information....7

6.2.3 Confirmation....8

7 Steps to Login....8

7.1 My Farm Page....9

7.1.2 Charts....10

7.1.3 Dashboard....10

7.1.4 Activity History....11

7.1.5 Activity Calendar 13

7.1.6 Weather 13

7.1.7 Layers 13

7.1.8 Equipment Mode 16

7.1.9 Setup 24

7.1.10 Add 25

7.2 Reports....26

7.2.1 Agronomic Reports....26

7.2.2 Fleet/Machine Report....26

7.3 Insights....27

7.4 Notifications tab....29

7.5 Help guides 30

7.6 User icon....31

7.6.1 What's New 32
7.6.2 Process Status 32
7.6.3 My Settings 34
7.6.4 My CaseIH 35
7.7 Log out 41
8.Mobile app-Steps to download 42
9.Mobile app-Steps to login 42
10.Mobile app-Home screen 43
10.1 Mobile app-Menu 44
10.1.1 Mobile app-My Farm 45
10.1.2 Mobile app-My Jobs 46
10.1.3 Mobile app-Activity history 47
10.1.4 Mobile app-Setup 48
10.2 Mobile app-Fuel/DEF 48
10.3 Mobile app-Equipment hours 49
10.4 Mobile app-Alerts 49
10.5 Mobile app-Toolbar 50
10.5.1 Mobile app-My farm 50
10.5.1.1 Mobile app-Agronomics 50
10.5.1.2 Mobile app-Equipment 52
10.5.1.3 Mobile app-Maps 53
10.6 Mobile app-Sign out 54

1 Telematics – Over view

This machine may be equipped with a Telematics system. This is an asset-monitoring system that combines Internet, cellular, and GPS technologies. A transponder unit is mounted on the equipment that does wireless communication with the user interface. Using cellular technology, the transponder can send equipment data, including location, on/off status, usage and production matrix, diagnostic data, movement alarms, unauthorized usage and monitor machine maintenance to the user interface. The system will help cut costs and keep accurate records. Overall, The telematics system on a vehicle is used for vehicle and fleet management.
The telematics system contains the following items:

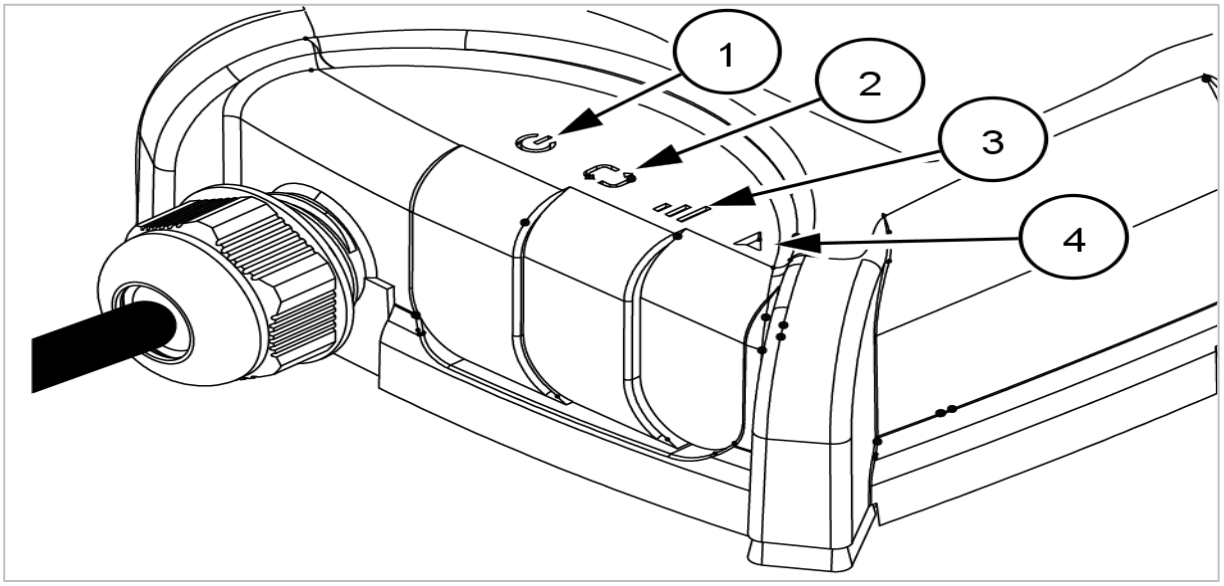
• The Connectivity Module installed in the vehicle to collect and transmit data.
• The wireless cellular network and internet infrastructure to exchange data between devices.
• A back-end cloud infrastructure to manage and store your data, and to deliver subscriptions wirelessly.
• An internet-connected computer to remotely access and manage your data through the connect portal.

Once installed and activated with a valid subscription, the PCM can be used for:

• Telematics features are available in AFS Connect portal account.

1.1 Troubleshoot - Start-up test

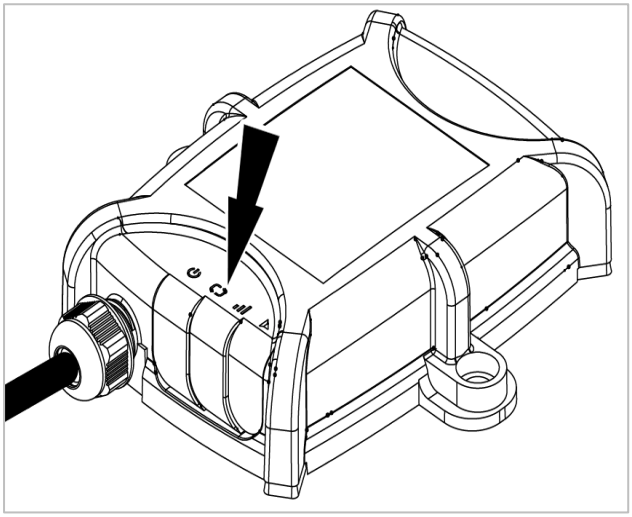
1. Key on the vehicle.
2. Confirm the Light-Emitting Diode (LED) indicators on the modem.
3. When the modem is booting, all four LED indicators will be solid green.
4. When the modem is operating normally:
    - The Power LED indicator (1) will double blink ON.
    - The CAN LED indicator (2) will be solid ON.
    - The Modem LED indicator (3) will be solid ON.
    - The GPS LED indicator (4) will be solid ON. If the Power LED indicator is solid, the device does not have a configuration applied.
    - Check the device and wiring harness installation.



1.2 Light emitting diode (LED) status indicator

The CM100 modem has four Light-Emitting Diode (LED) indicators for diagnostics on the following functions:

- Power
- CAN
- Modem
- GPS



Icon	Function	Color	State	Description
	Power	Red	Off	No power supply.
			Double blink	Powered and working.
			Rapid blinking	Key is off.
			Solid	Not configured.
	CAN	Green	Off	CAN bus signal is not available.
			Solid	CAN messages receives from at least one channel.
	Modem	Green	Off	The modem is initializing. No network coverage, or device is in standby/wake mode.
			Slow blink	GSM networks are detected.
			Fast blink	The device is connected to the network, and ready to communicate with the server.
			Solid	GSM communication is ongoing.
	GPS	Green	Off	GPS is initializing, or the device is in standby/wake mode.
			Blinking	Searching for GPS signal.
			Solid	GPS position is fixed.

2 Purpose

This document describes end user functionality of AFS Connect portal designed for agricultural machines.

3 Scope

This document covers the operating instructions and feature demonstration for AFS Connectportal from an end user perspective.

4 Over view

AFS Connect is a telematics portal which enables our customer to track and monitor their machines, connect with our authenticated dealer network, getting proactive alerts on key parameters which can be helpful in downtime management and can help increase productivity.

As part of this solution, a telematics device is fitted into the machine which sends data continuously, tracks machine location, also collects all this data in real time from machines and sends to the cloud. Strong algorithm available in the cloud analyses all these data at almost real-time and provides useful and interactive insights to users through web and mobile applications.

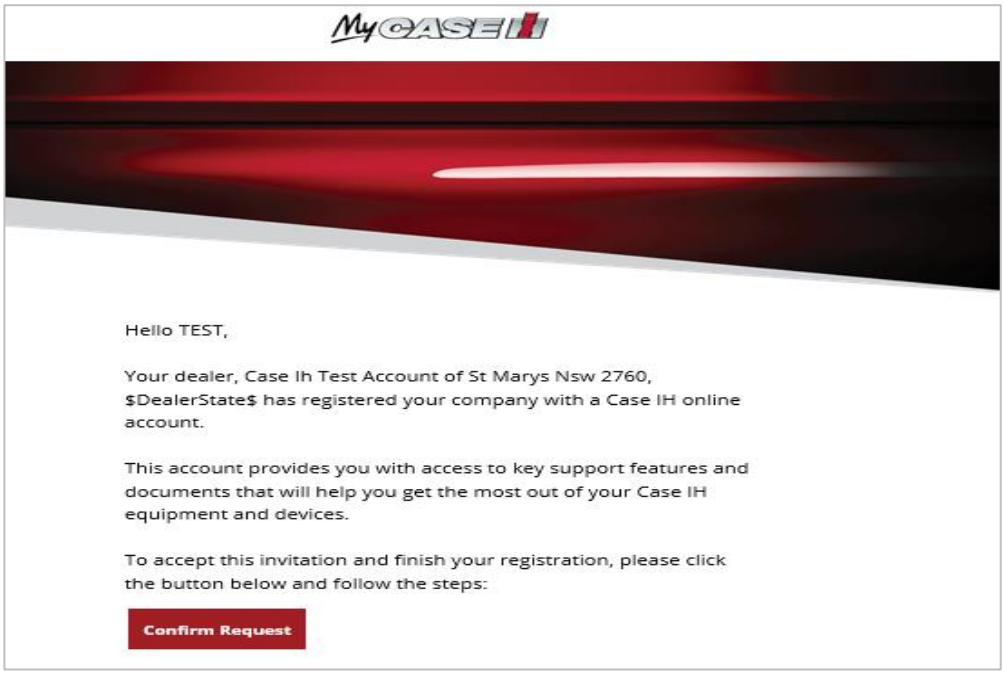
5 Prerequisite

- User has access to the Internet and able to connect to the web portal
- Dealer should create your profile in AFS Connect and attach the purchased/ retrofitted machine with your profile.
- You will receive a link on your registered email ID to set up your profile on the portal(refer point no.6)
- The following link must be registered under the trusted site of browser settings: www.caseih.com

6 User Registration

6.1 Welcome Email

Once customer is registered by dealer, He will receive a confirmation email for account activation & profile setup. Therefore, he needs to click on "**Confirm request**" link to setup his profile/complete the registration at his end.



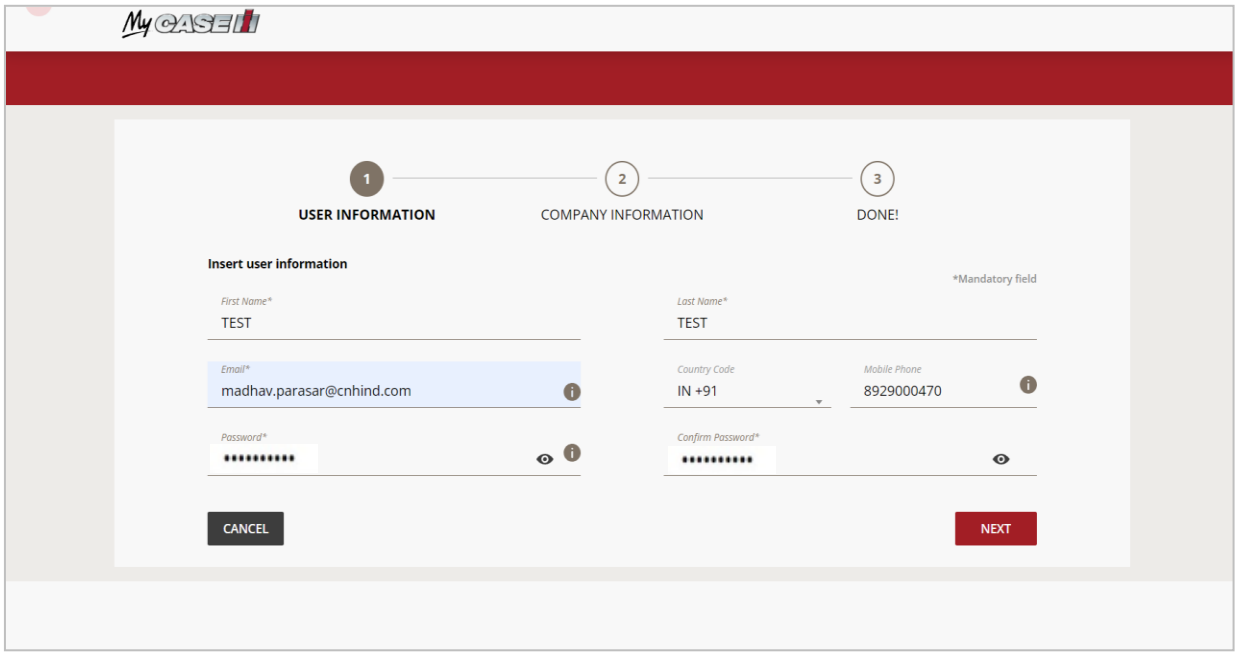
6.2 Profile Registration

After clicking the link, A page will open in browser through which '**Two step**' profile registration is to be done.

6.2.1 User data

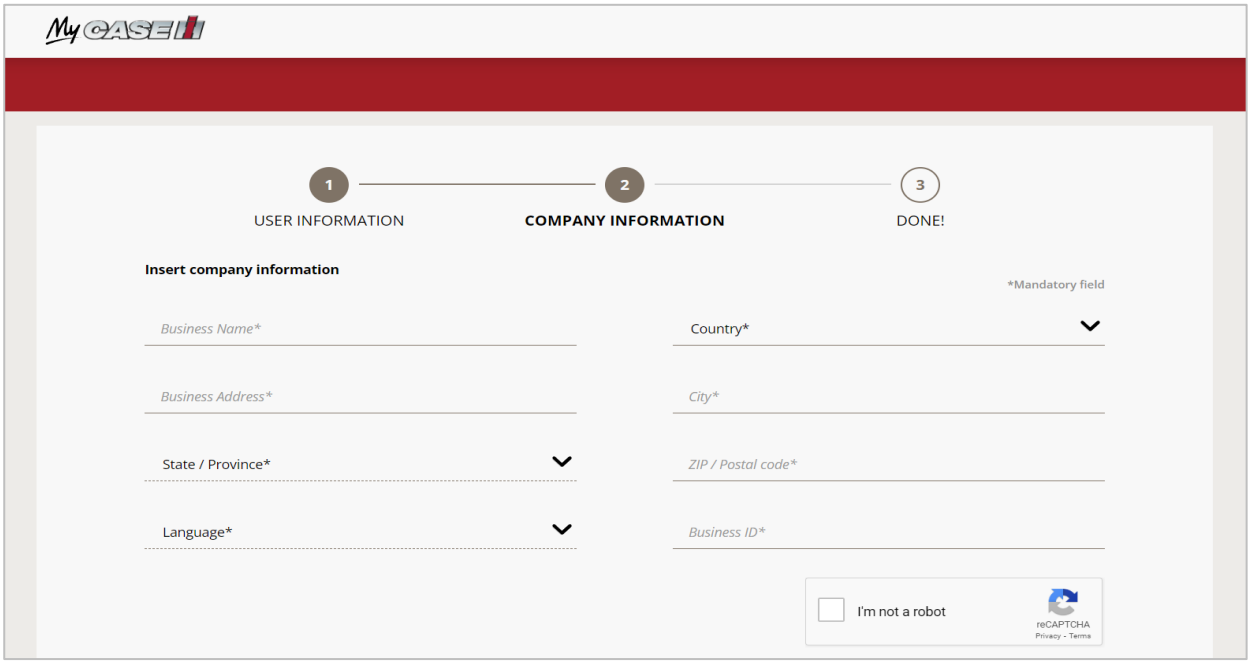
This is the first step of user registration wherein which mandatory fields such as Name, E-mail, Password are to be filled, although contact number remains a non-mandatory field but it is recommended to fill in order to receive notifications that one sets in the portal.

After filling the details simply click on 'Next' button NEXT provided at the end of the page to proceed towards next step.



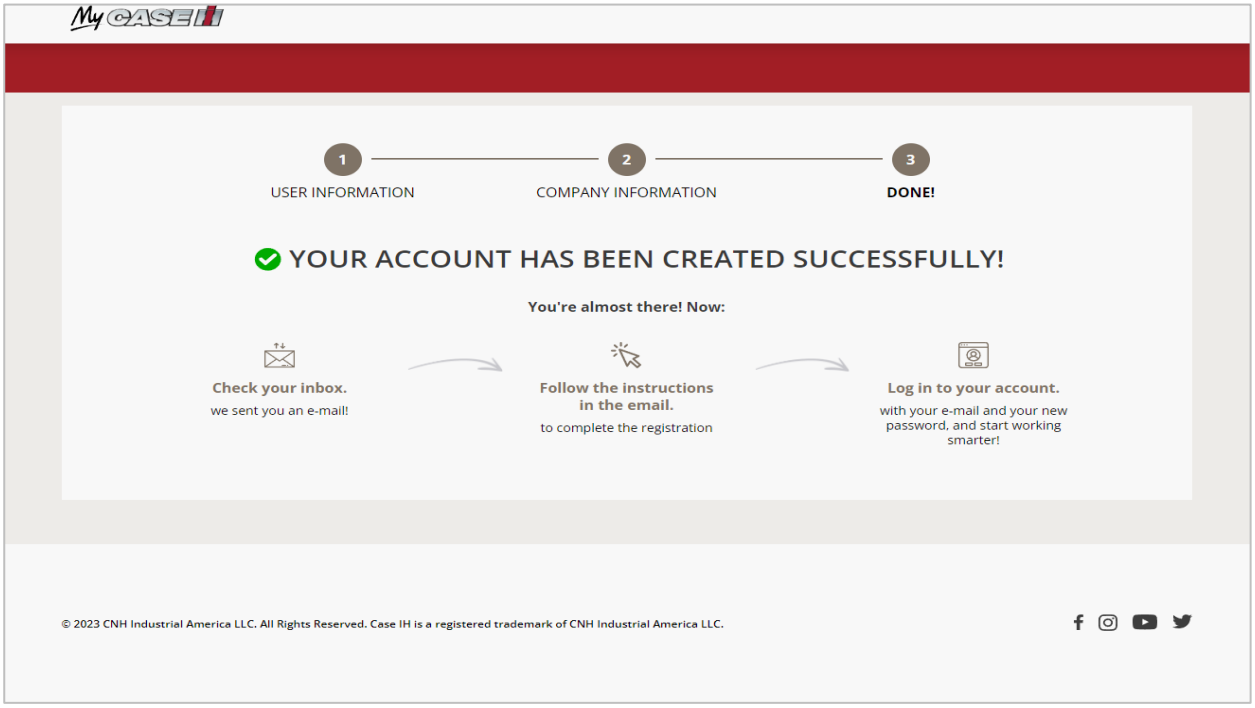
6.2.2 Business information

Second step of profile registration requires entering of business information e.g., Company name, address etc Once details are entered and privacy terms are agreed, Click on the "**REGISTER**" button after verifying the identity.



6.2.3 Confirmation

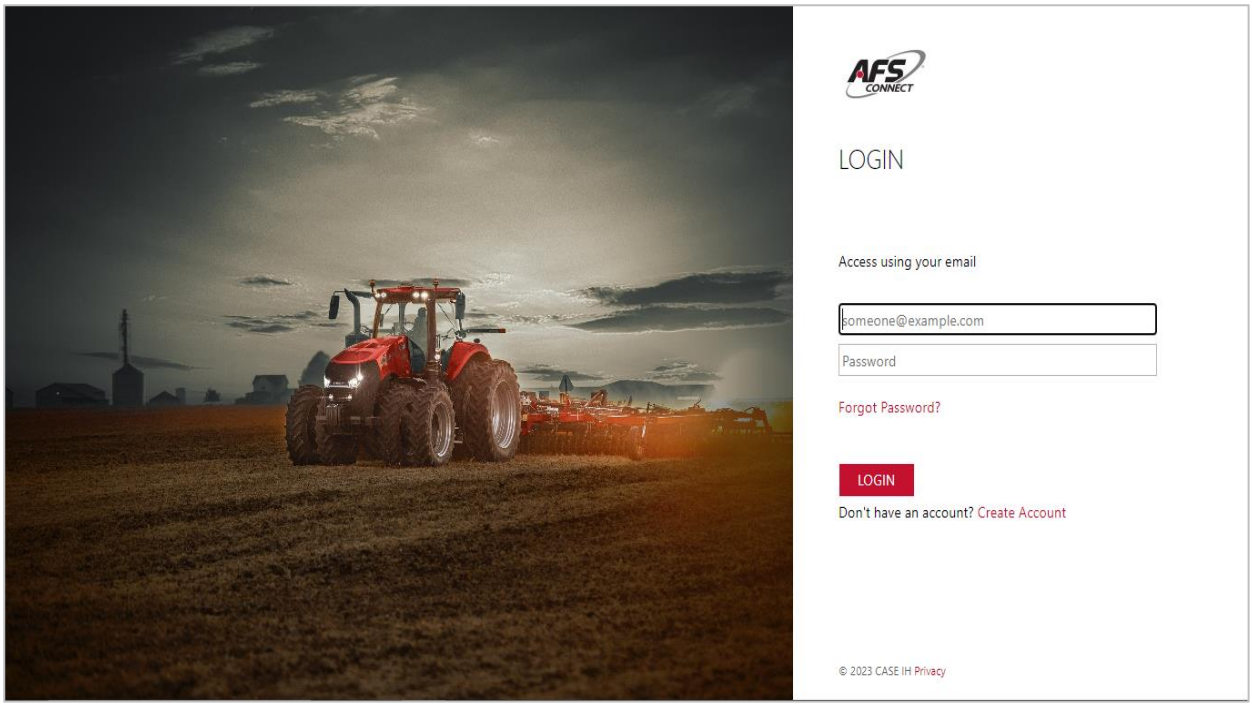
Post clicking the register button, A confirmation screen will pop & user will be automatically redirected to Login page of "**MY CASE IH"**.



7 Steps to Login

Launch CASEIH portal (Link-https://caseih.afsconnect.com) & enter credentials – i.e., Registered email address as username and password that was set at the time of user profile registration.

Once entered, Click on the login button to enter into the portal.

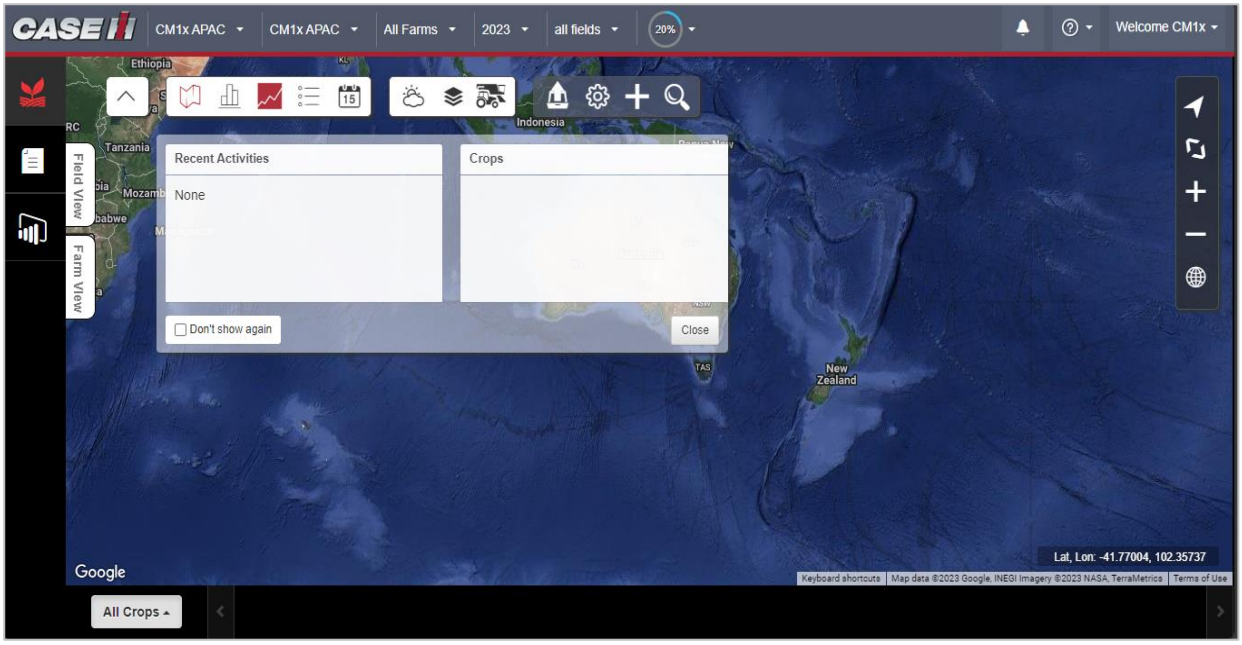


7.1 My Farm Page

After entering the credentials, Click on "Login" button

- You will be redirected to "**MY FARM PORTAL**".

This portal offers numbers of features related to management, data visualization, settings, set-ups & more related to telematics device linked equipments to the user.

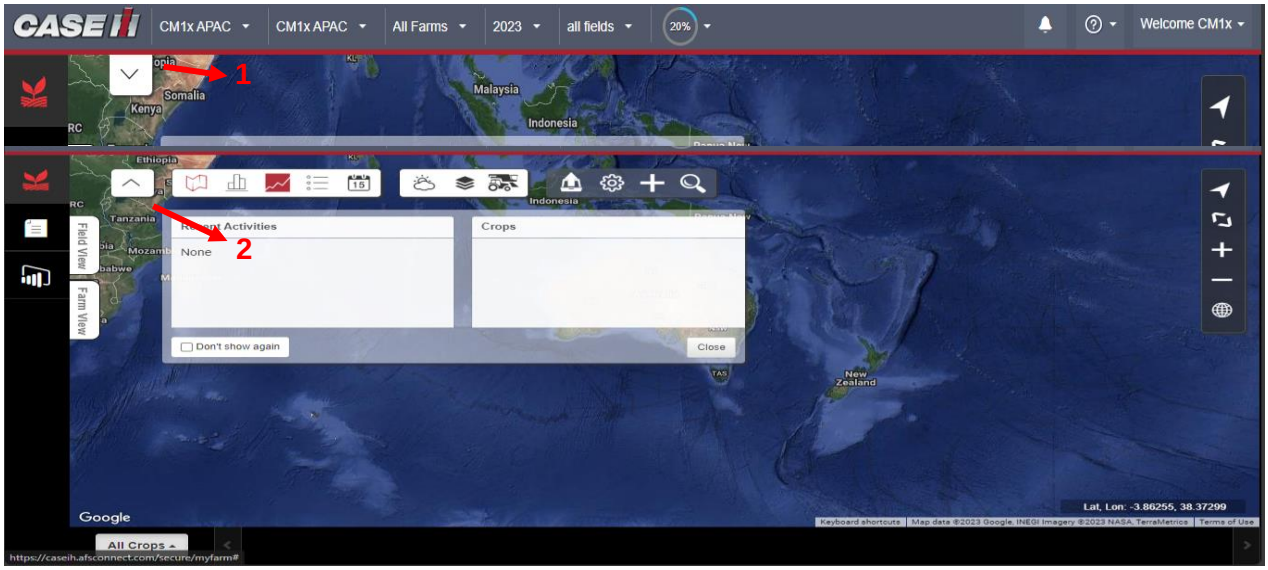


7.8.1 Toolbar

Image shows toolbar with multiple buttons, These buttons play different roles in giving information about the Farm, Field & Machines. You can click on each button according to preference of viewing the data.

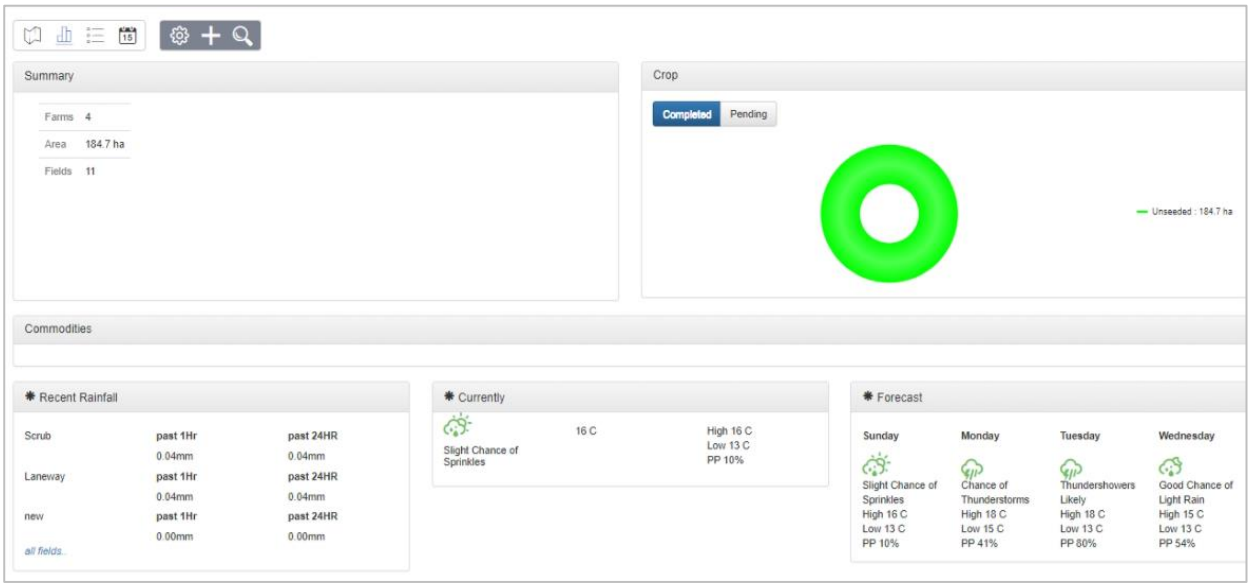
7.1.1.1 Hide Toolbar

You can hide toolbar by clicking on "**Hide**" button(1). Similarly, user can view toolbar by clicking on "**Show**" button(2)



7.1.2 Charts

You can click on "**Charts**" button to view overall summary related to Farms including total area & No. Of fields associated, Then he can view info. Related to crop i.e.. How much area of total is completed or incomplete in a graphical form & commodities(if entered).At the end of this window there is a dedicated area to track weather with past records of precipitation up to 24hr.

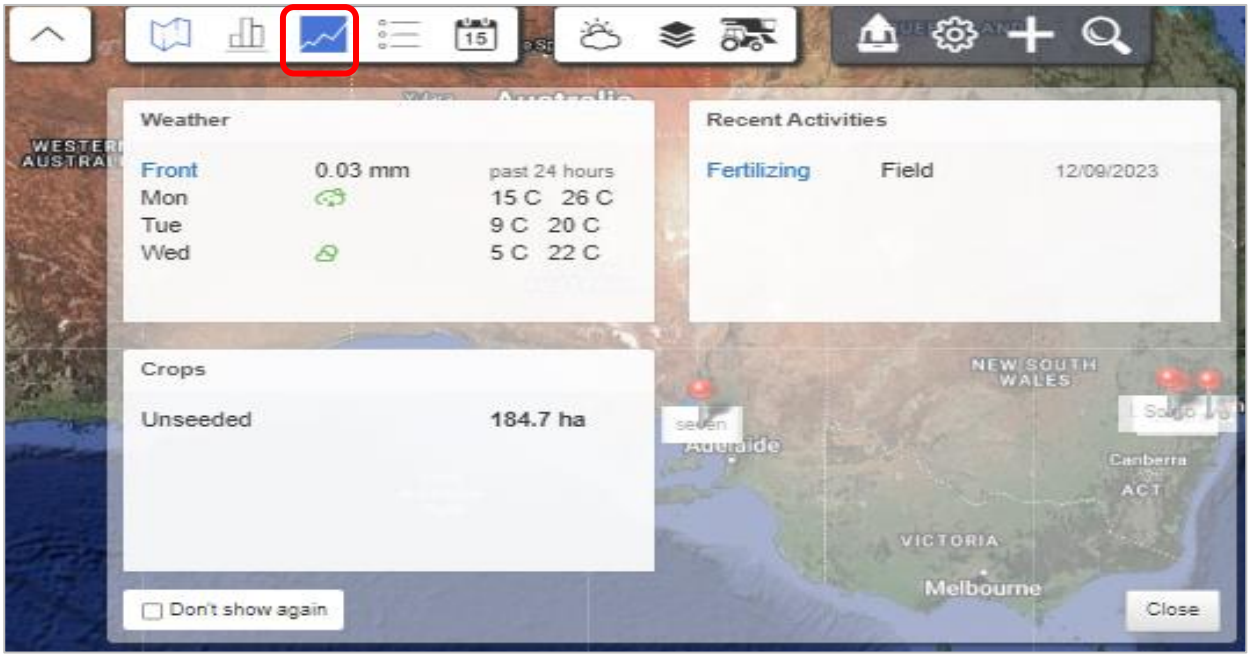


Click on "back" button to go back or close the current charts window.

7.1.3 Dashboard

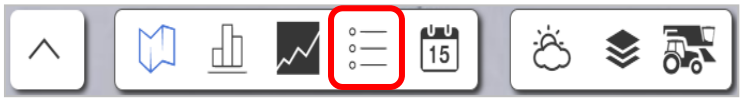
You can click on "D**ashboard**" button to view 24hr. record of weather, recent job done & Left progress of field under this window.

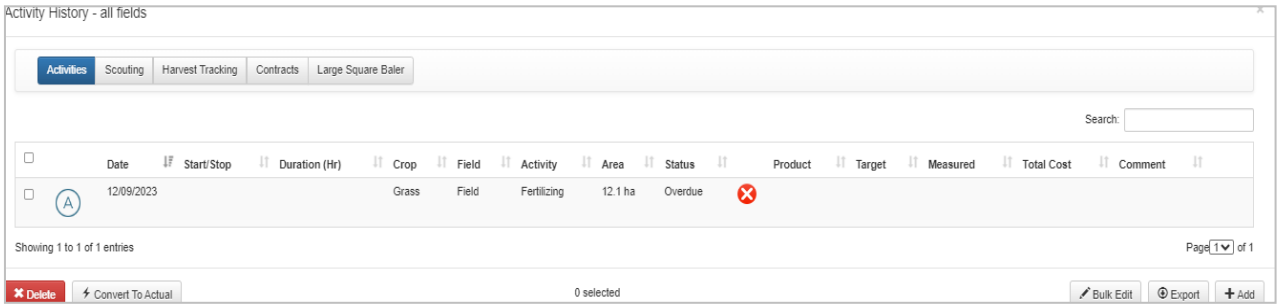
You can close this dashboard by clicking on "close" button available in the bottom right corner of the window.

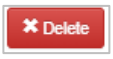


7.1.4 Activity History

You can view history of activities whether it has been completed or pending for all fields consolidatory under this window by clicking on "activity history" button. Here, you can use toggle buttons to view history of scouting, harvest tracking etc. Also you can export activity data into his system in excel format by just clicking export option. Also, Can edit, add and delete activities.

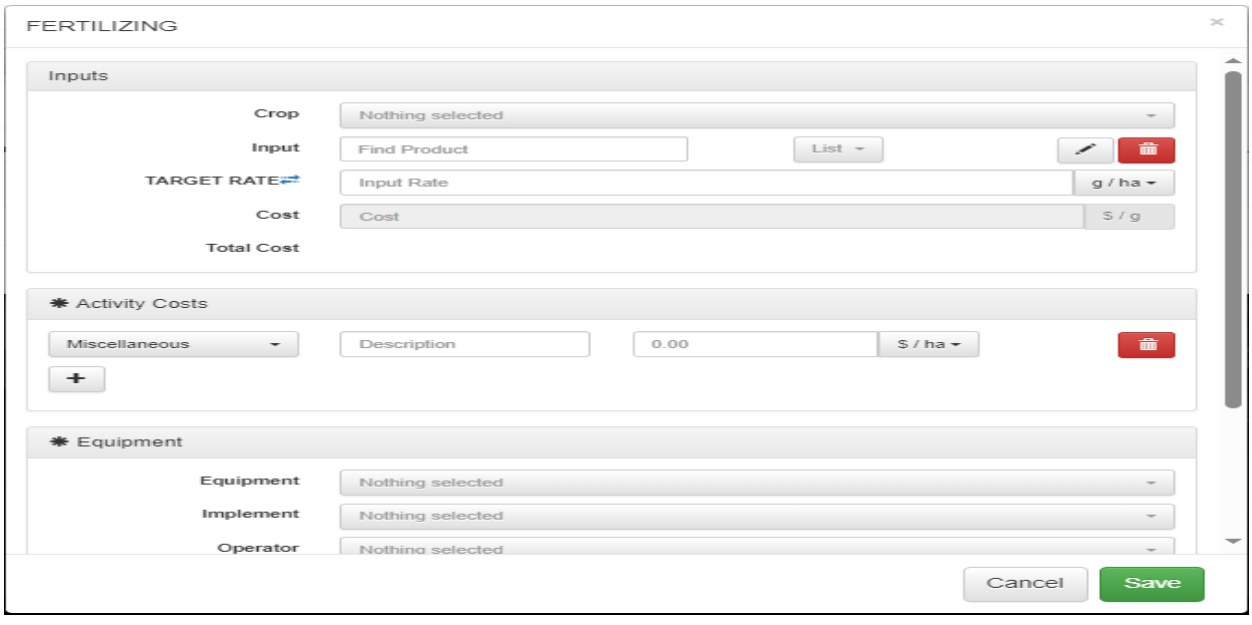


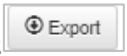


- Delete Activity 
  To delete an activity you will need to click on **"DELETE"** button provided in the bottom left side of the window. Also ensure selection of activity to be deleted by clicking the check box provided before every activity
- Convert to actual
  To convert an activity into actual job, simply select the activity from the check box provided & click on **"CONVERT TO ACTUAL"** button provided at the bottom left area of the window
- Bulk edit

  If there is a single modification for more than one numbers of activities, then You can do so by first selecting the activities & clicking **"BULK EDIT"** button provided at the right corner of the window. On clicking a new window pops up as shown.

  You can modify information like inputs, activity costs, equipment etc. according to his preference by using the options provided in the drop down

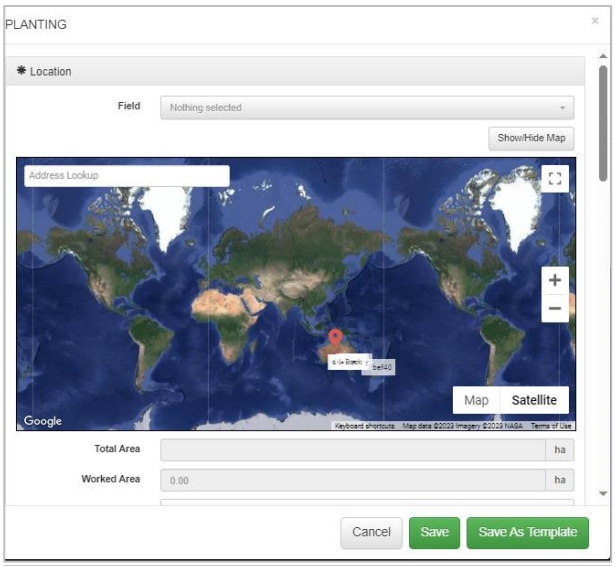


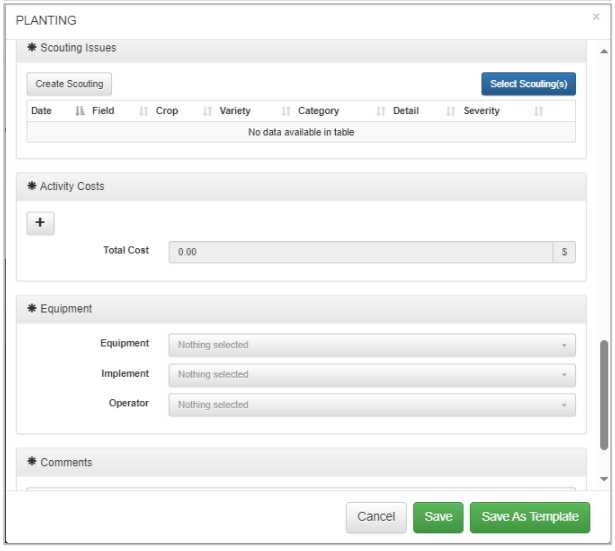
- Export 

To export the progress of activities in a form of consolidated data onto his system, You can do so by clicking on **"EXPORT"** button provided in the right bottom of the window→Select the activity type & date range→Click on download and the file will be downloaded in the form excel format

- ADD

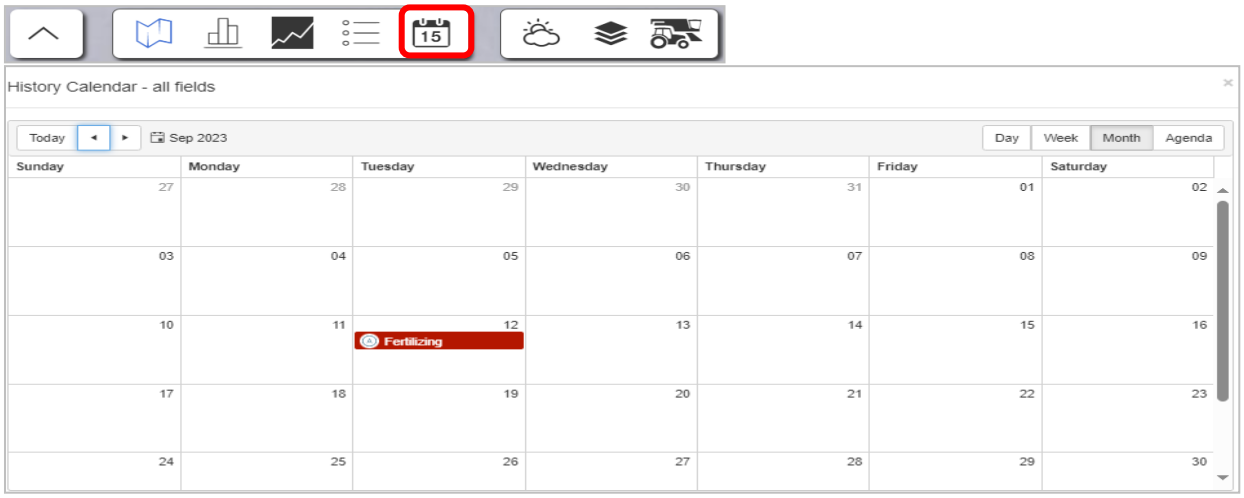
You can create/add a fresh activity by this option. For it he need to click on **"ADD"** button provided at the bottom left corner of the window. On clicking it, A new window pops-up in which user can add all the basic information such as drawing field and entering area details, Activity details(Activity type, Date range, Hours etc.) apart from all this, User can also add details of the operator & implement





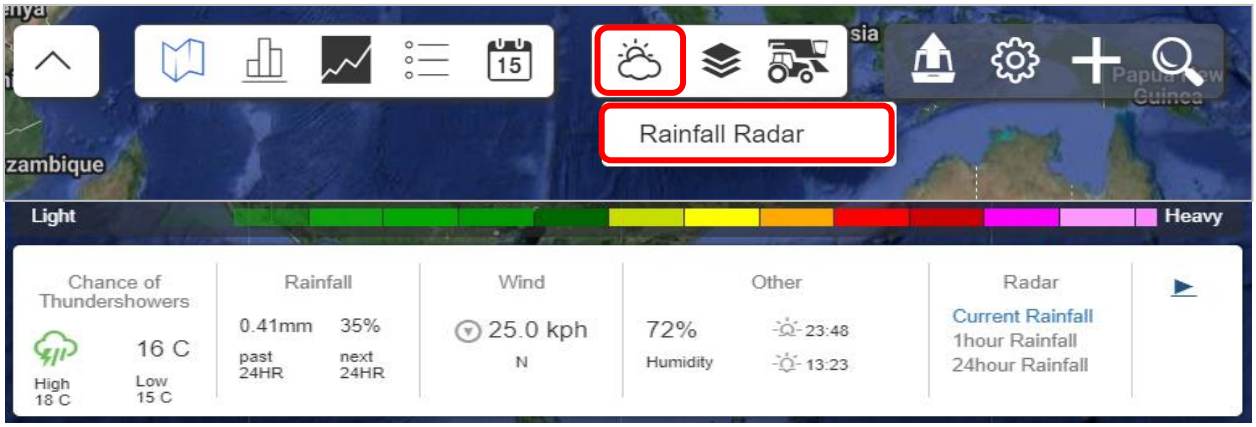
7.1.5 Activity Calendar

You can view list of planned activities in Activity calendar option for a particular day, week, or month moreover, Moreover on clicking any date you can edit/add a new activity in calendar(already discussed in section7.8.4) under **"ADD"** + Add subtab.



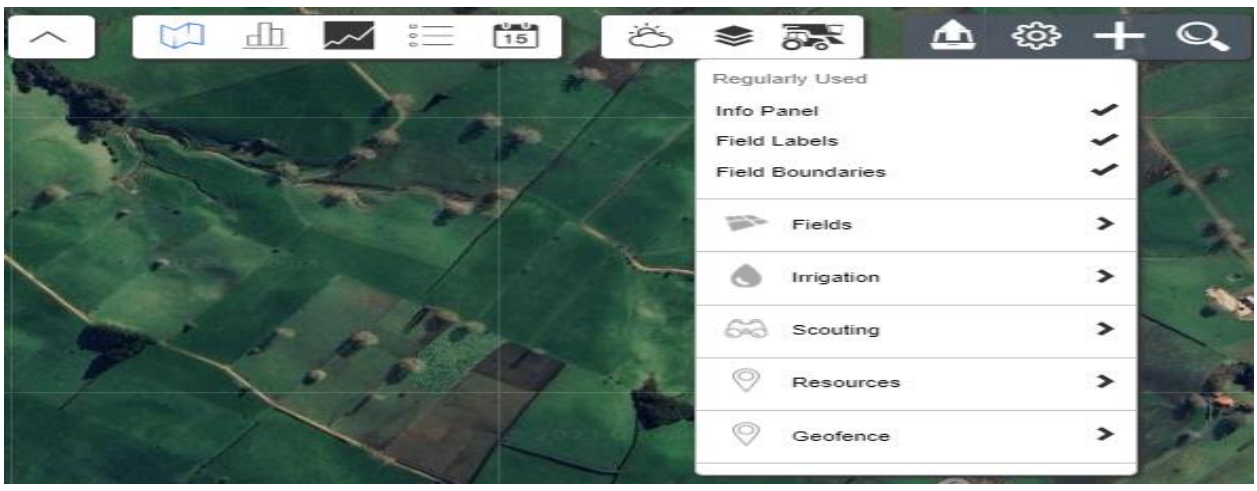
7.1.6 Weather

This feature plays a crucial role in providing the weather forecast according to machine's current location

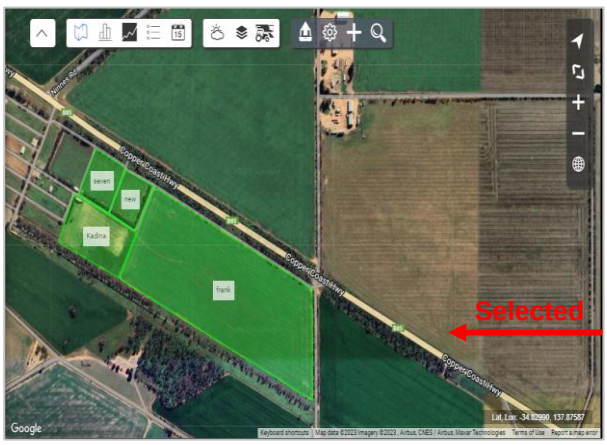


7.1.7 Layers

You can modify some of the viewing experience related to field by using this feature.

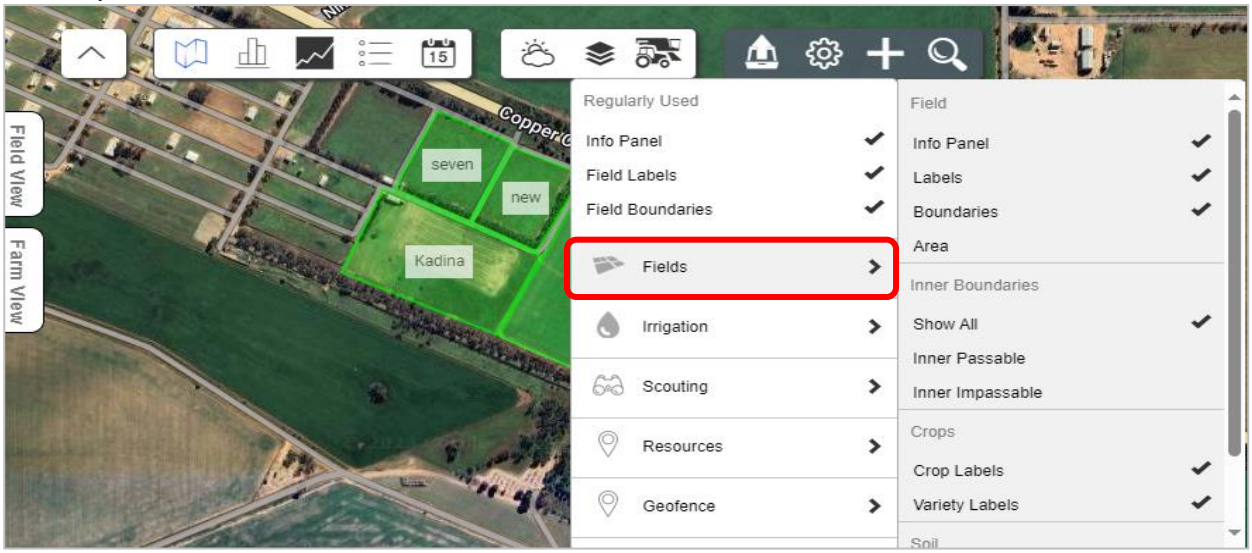


- Field Labels
  This option provides to select/deselect labelling done of field (refer to below before & after image)

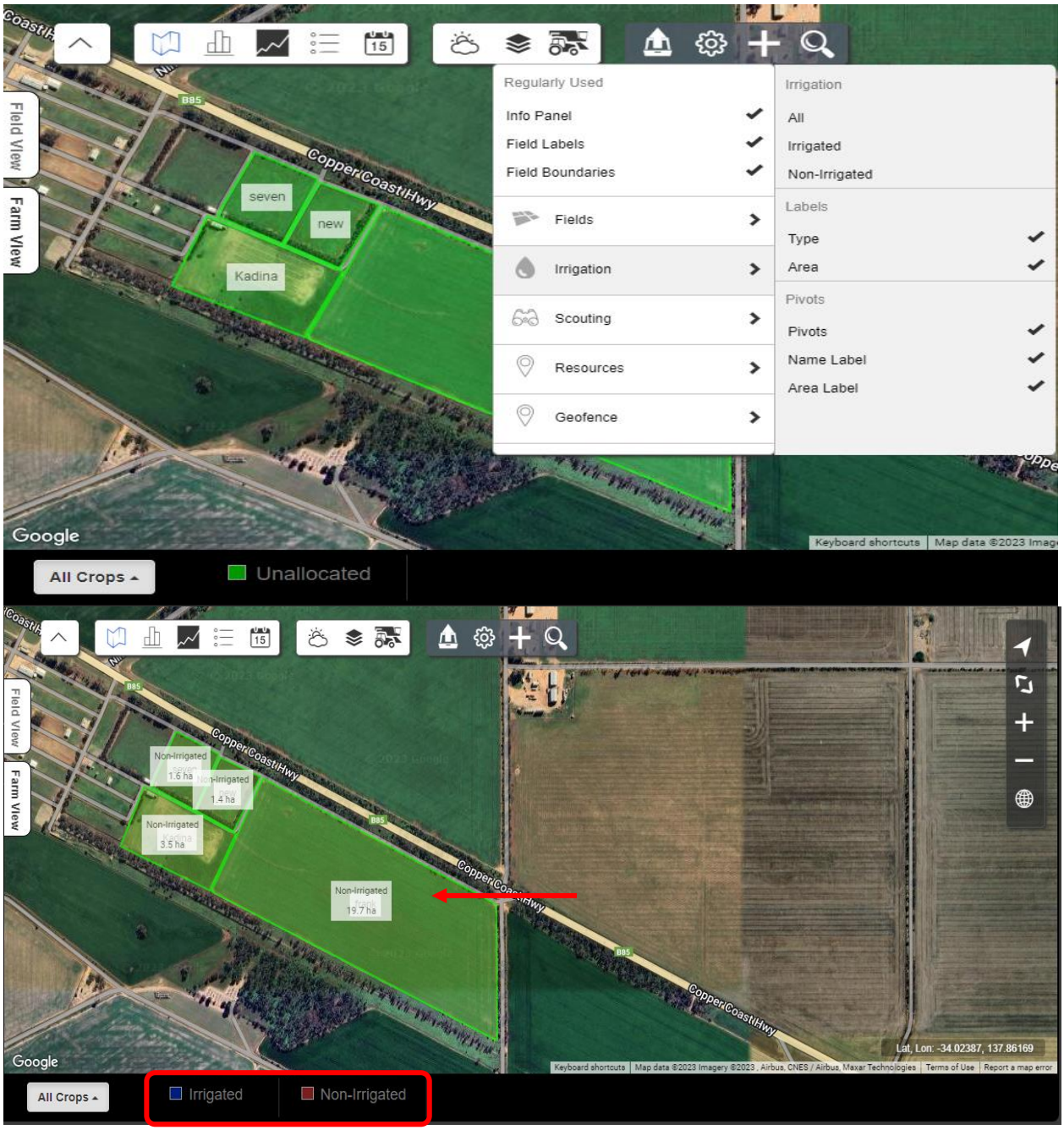


- Field boundaries
  This option provides to select/deselect boundary done of field (refer to below before & after image)

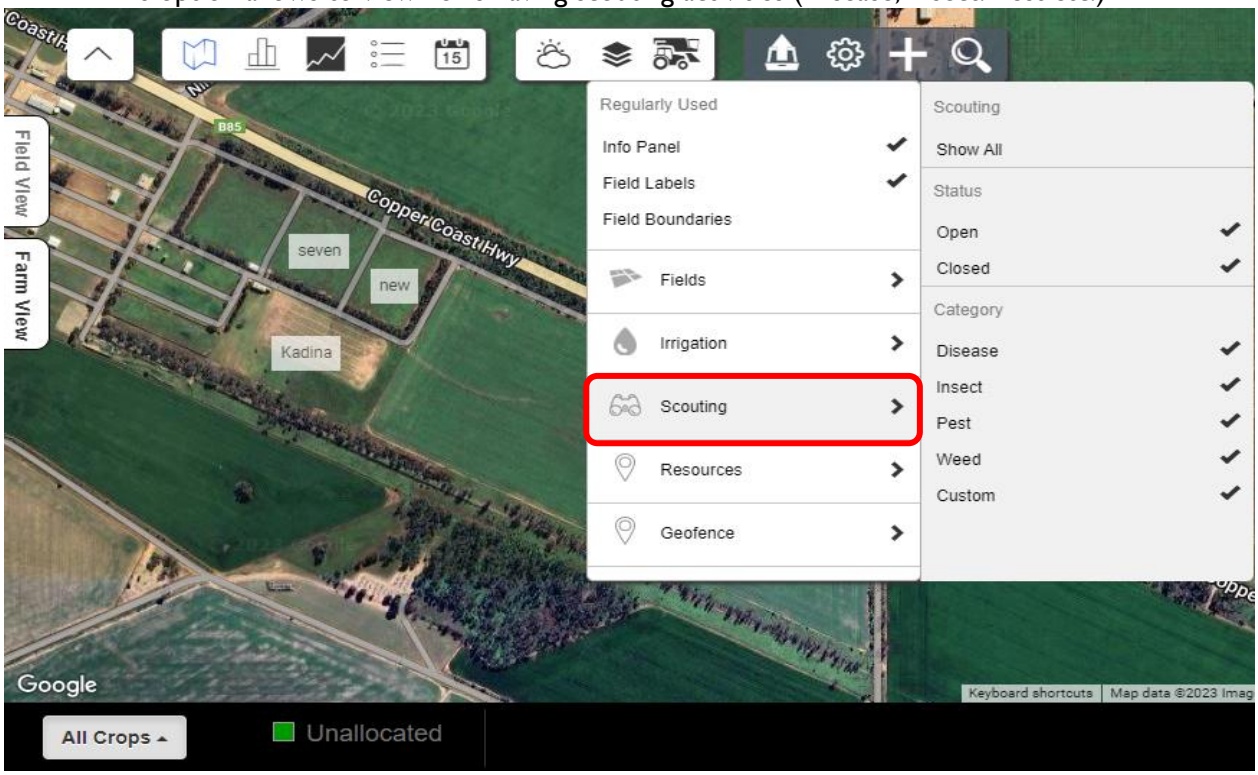
- Fields
  This option provides some basic to advanced viewing experiences of a field by having four sets of setting related to field, Inner boundaries, Crops and Soil which you can toggle according to your preference.



- Irrigation
  This option provides irrigation status of the field On selecting this option, You can differentiate between an irrigated & non-irrigated field with name or area labels as selected according to your preference

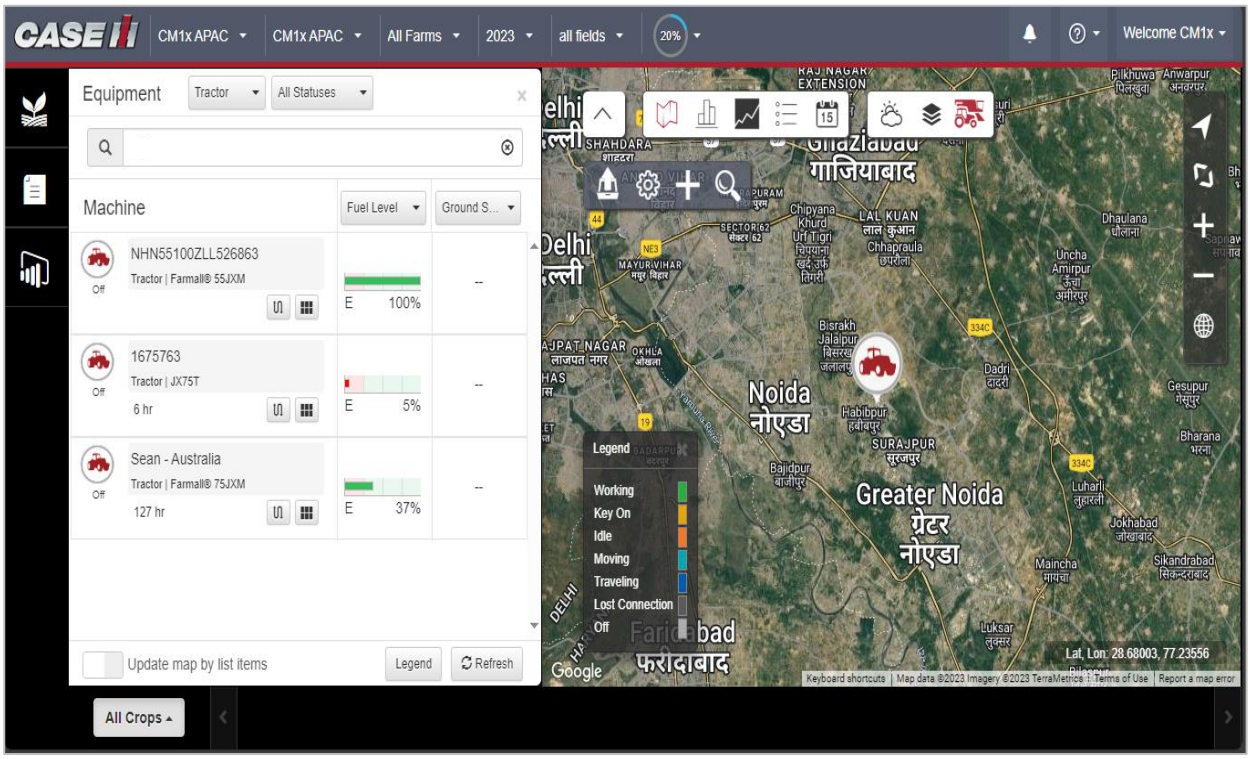


- Scouting
  This option allows to view fields having scouting activities (Disease, Insect. Pest etc.)



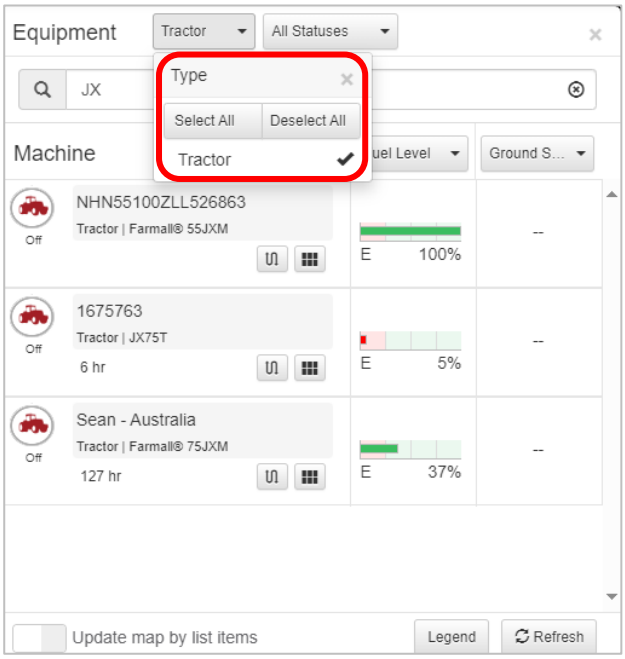
7.1.8 Equipment Mode

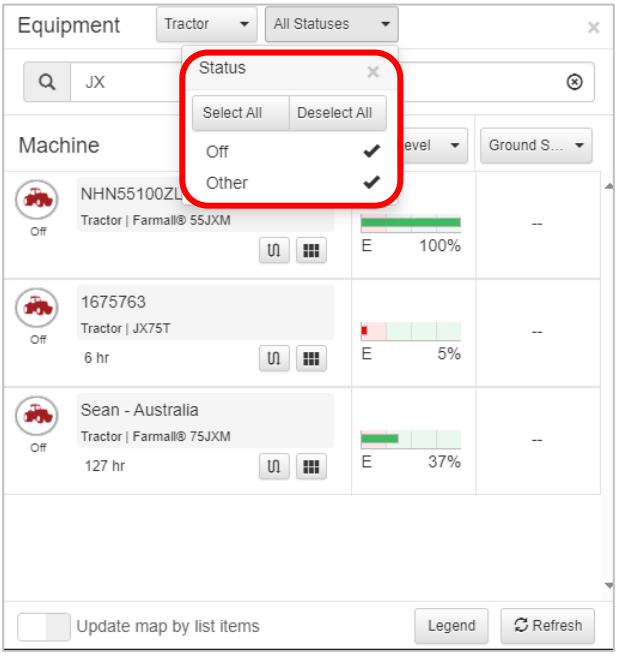
Equipment mode shows live location of telematics installed machines on map, This mode has several features through which you can maximise your operating experience. From viewing fluid levels to creating notification, From viewing live location to 24hr. & beyond location record, From visualizing machine data to export task/activity-This feature provides many more that will be discussed briefly in coming sections.



7.1.8.1 Equipment Mode Filters

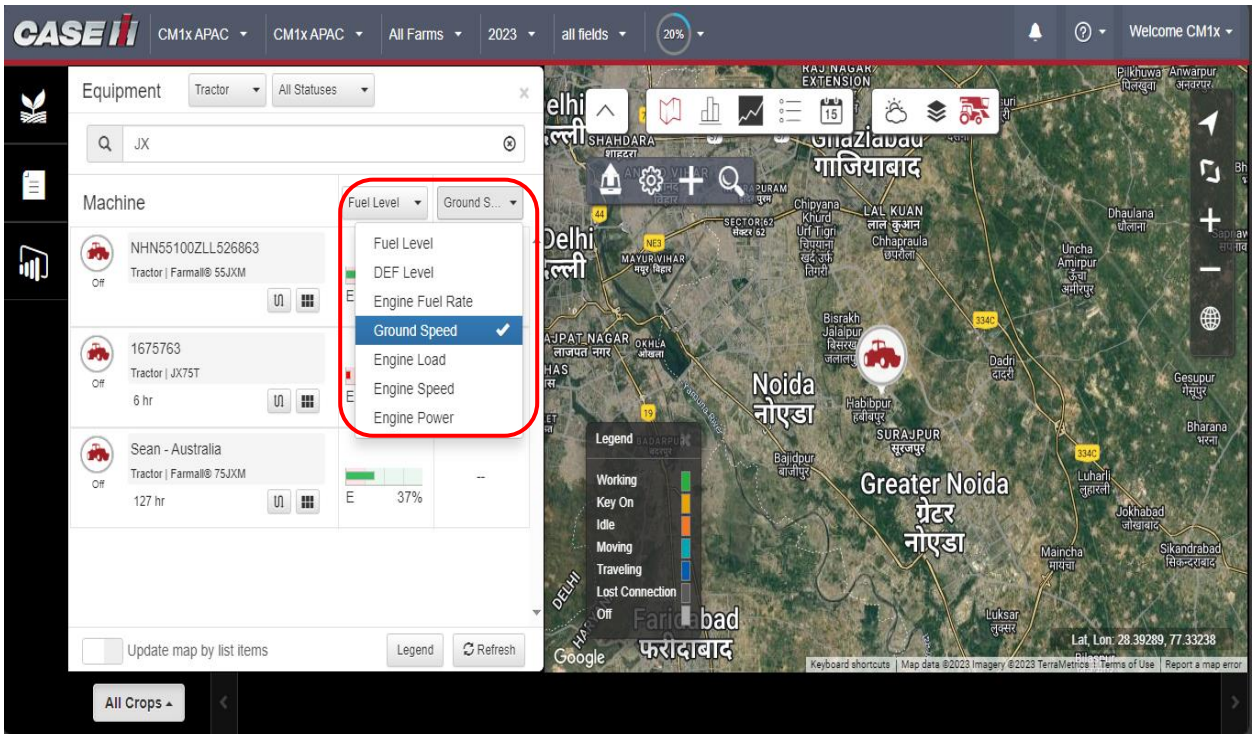
On the top of this mode's screen you can filter out the viewing experience according to product type(Tractor, 4WD Tractor etc.) and according to status of the machine(Off, Lost connection, Others etc.)





7.1.8.2 Machine filters

From the drop down provided you can select up to two filters related to machine parameters at a time to view their live status

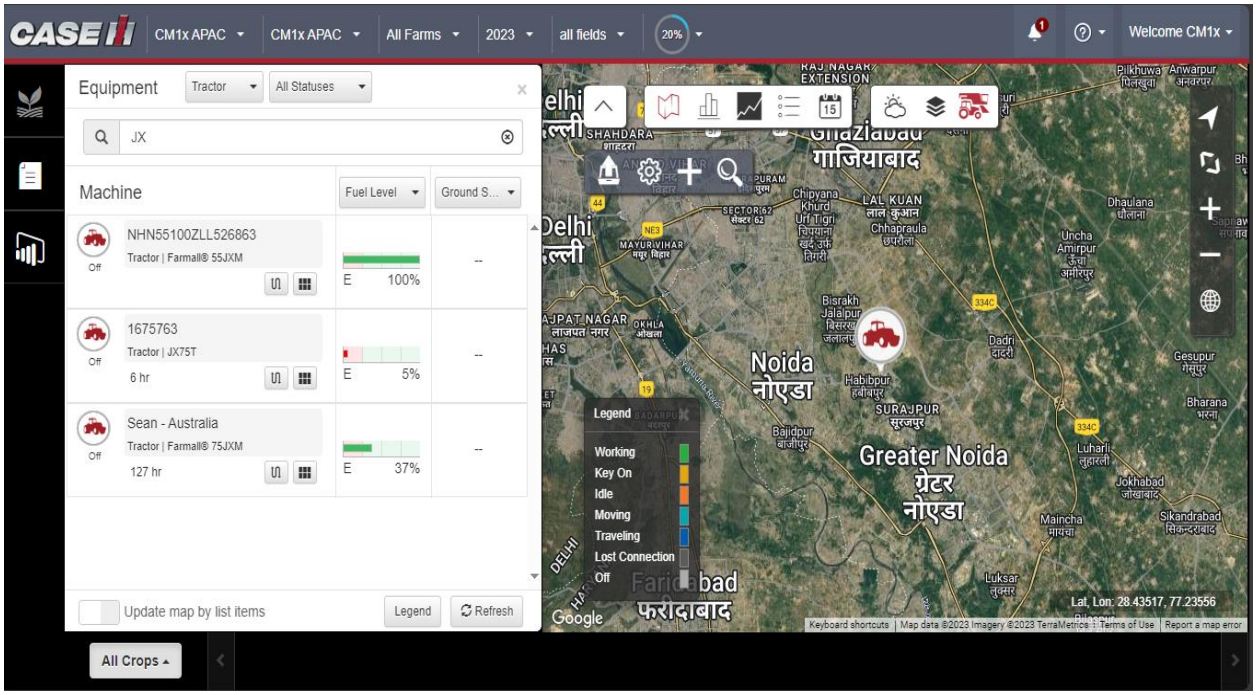


You can view machines based on machine type and status by using search filters in equipment mode page.

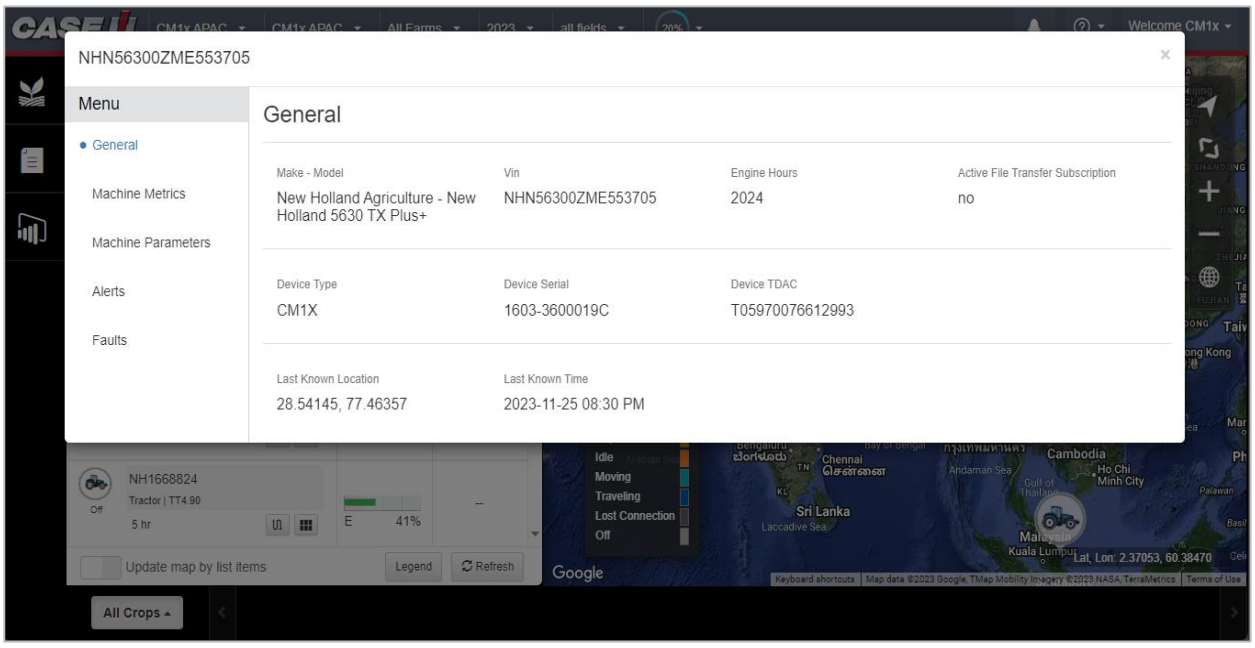
You can type machine name as well in the search box to get results.

7.1.8.3 Machine Details

You can click on "**Details**" button to view information such as – General details, Machine metrics, Machine parameters, Machine alerts & Machine faults.

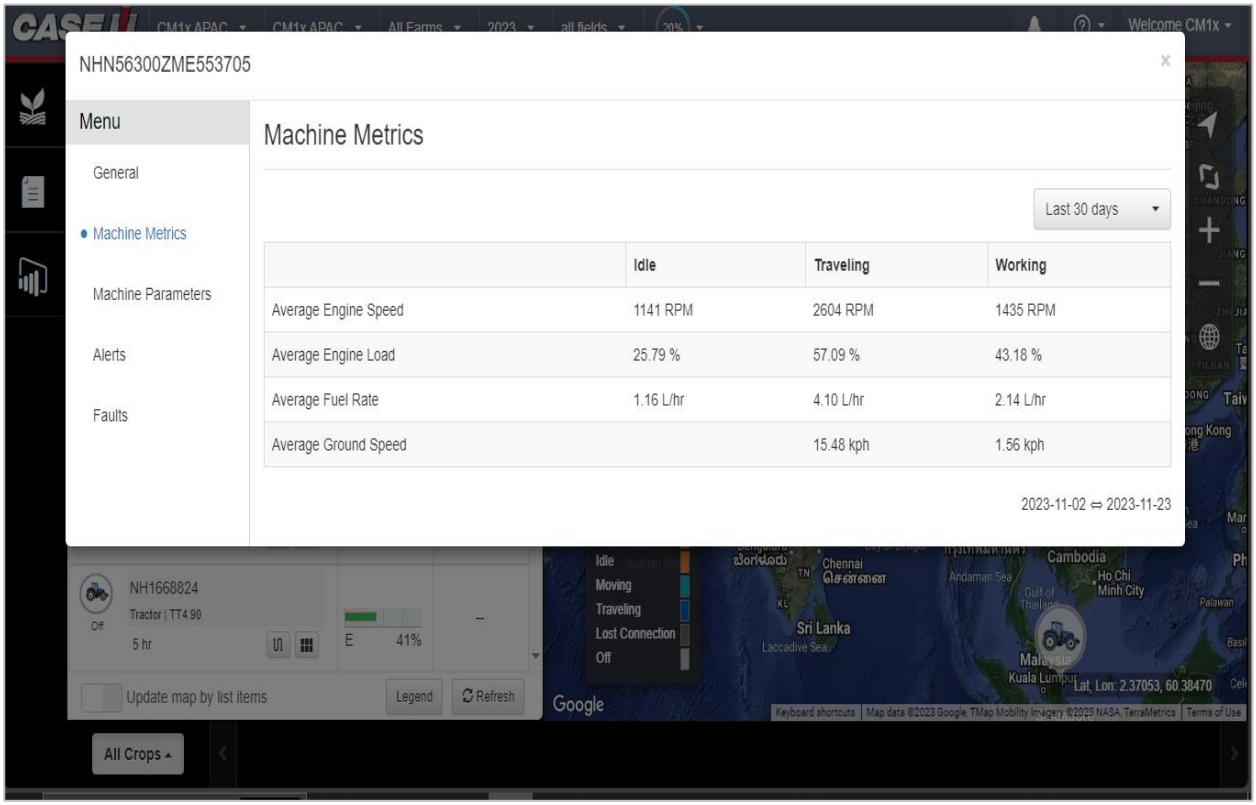


- General Info.
  This option gives basic information related to machine such as Model, VIN, Engine hours, Device & related information and Last known machine location and time



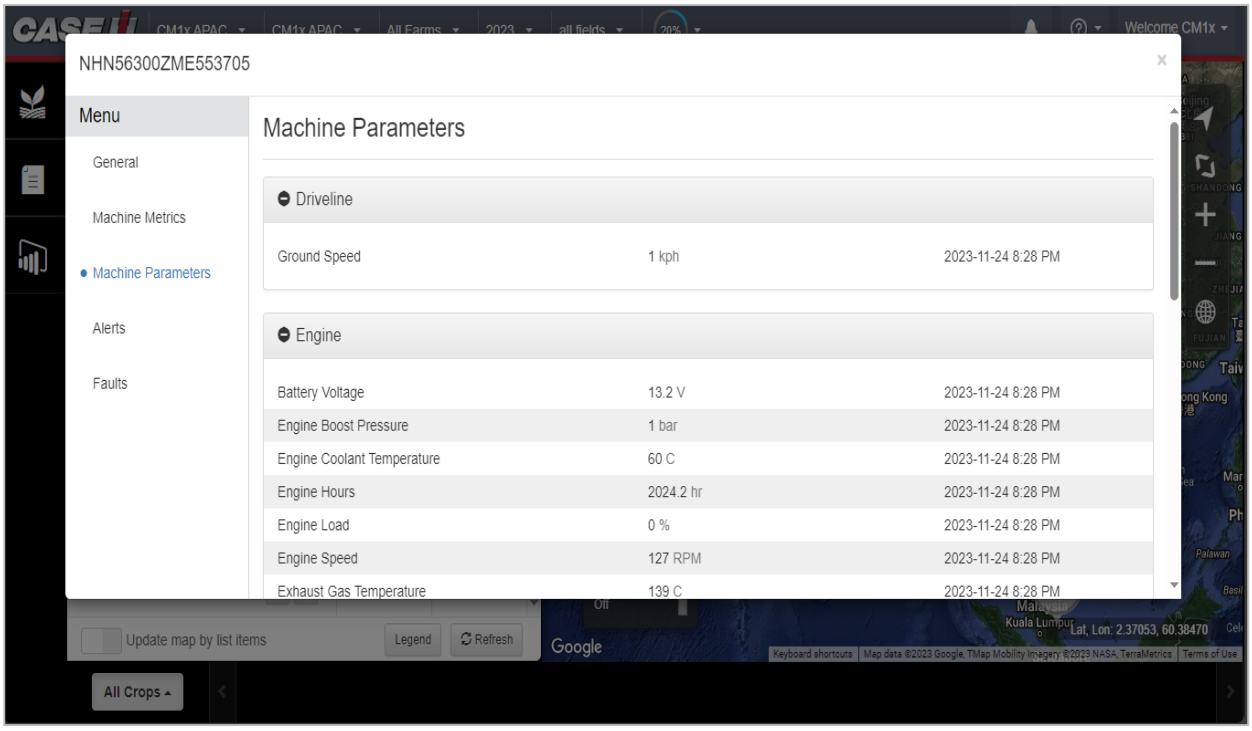
- Machine Metrics

  This option gives average values of some machine related parameters in accordance to machine's status. Data can be viewed for a minimum time frame of 24Hrs. and the maximum limit is 30 Days



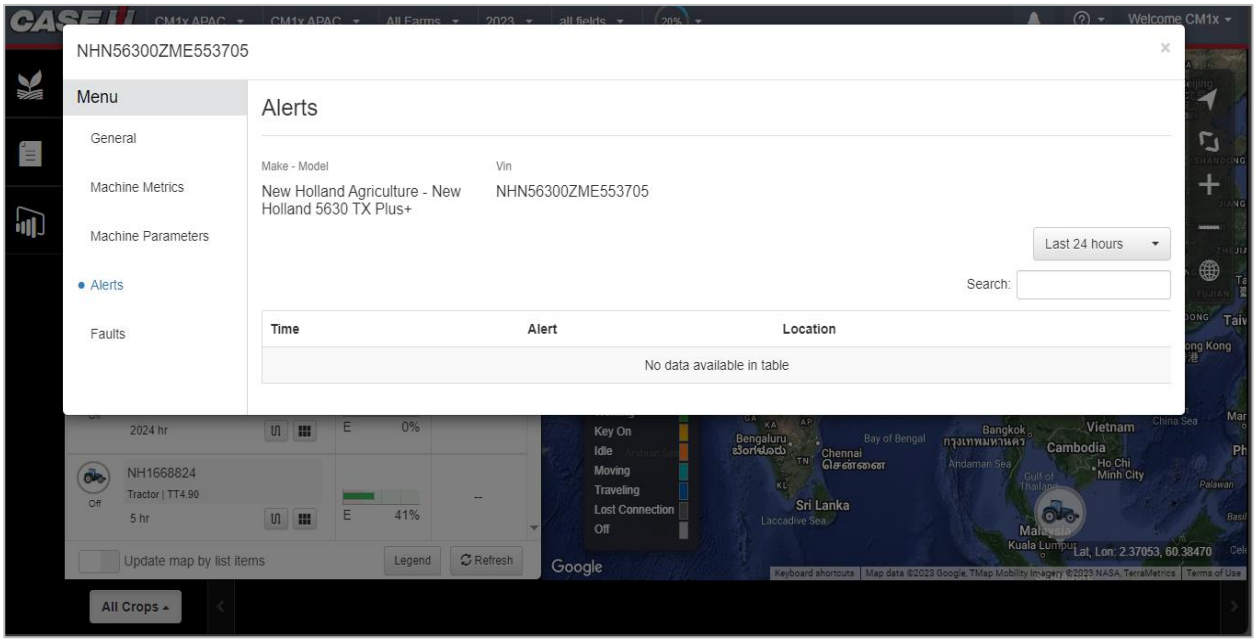
- Machine Parameters

  Yet another important feature of the portal, This option provides essential parameters of the machine related to Driveline, Engine, Fuel etc.



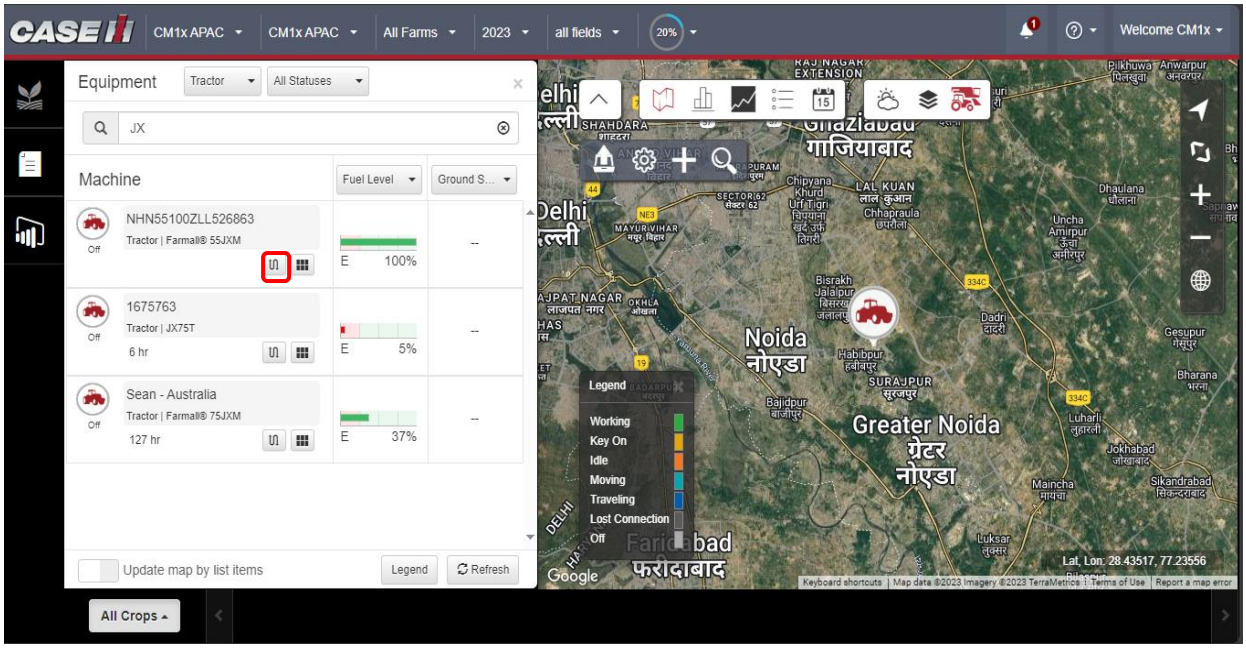
- Alerts

  Alerts option contains history of fault codes occurred, Data is stored up to maximum of 90 days. Moreover, You can click on the "**CO-ORDINATES**" of the alerts/ faults to view the location where it was occurred.



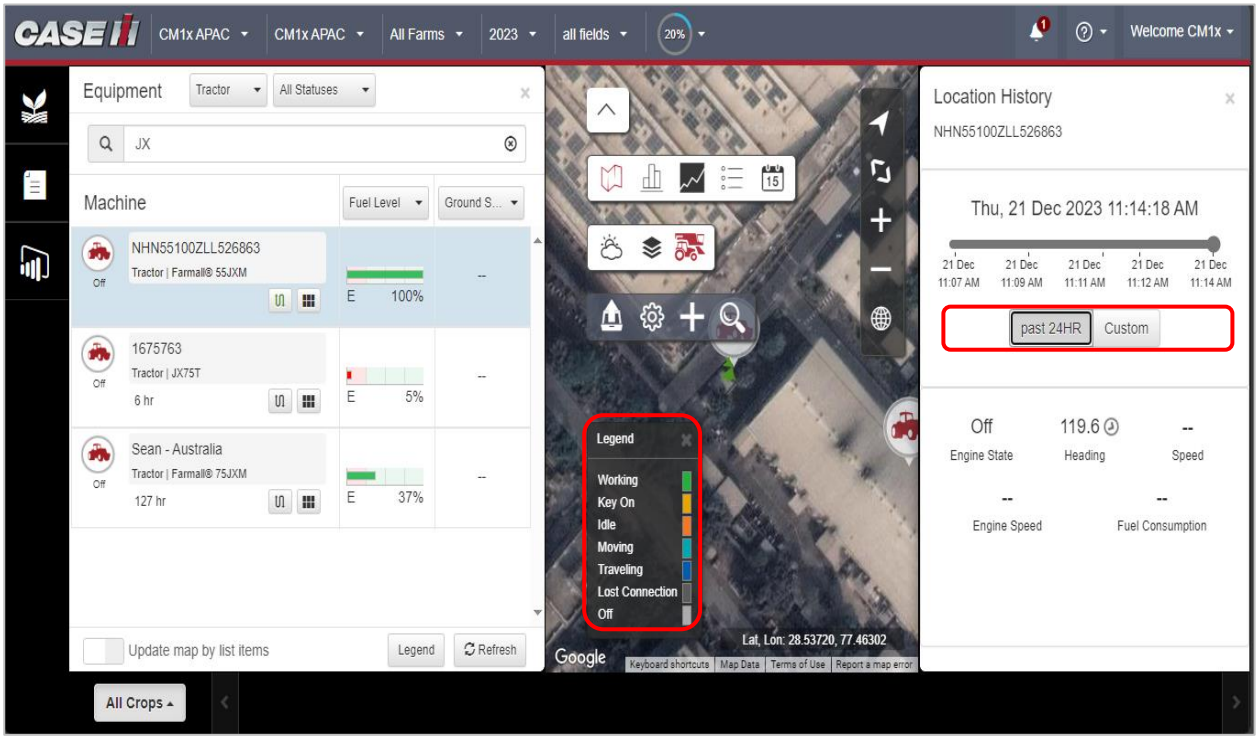
7.1.8.4 Machine Movement History

You can click on "**LOCATION HISTORY**" button to view machine's movement path for a certain period . A dialogue box will be open in the right side on clicking this option.



You can select "**PAST 24 HOURS**" button or "**CUSTOM**" button to set the date range according to own preference and can select up to a maximum of 24 hours period from calendar, After it click on the "**LOAD**" button

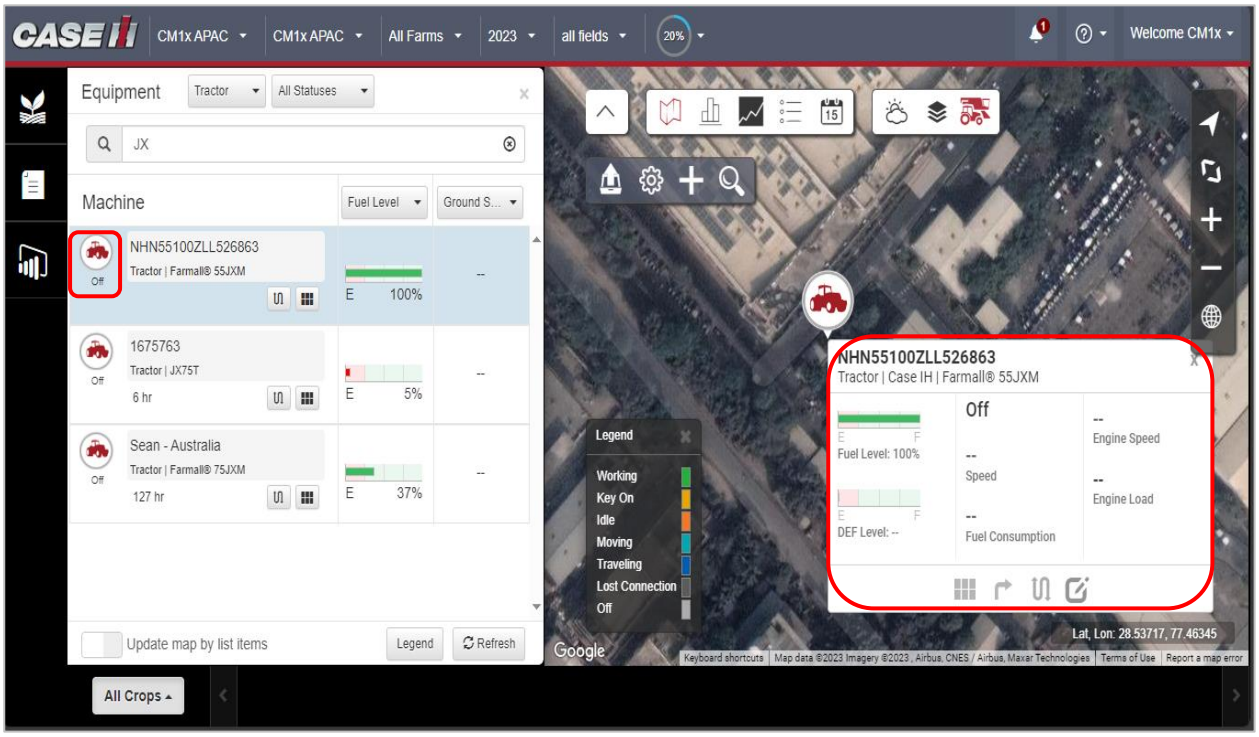
. Then machine movement history will appear on the map. You can interpret machine movement colour based on legend.



7.1.8.5 Machine Location

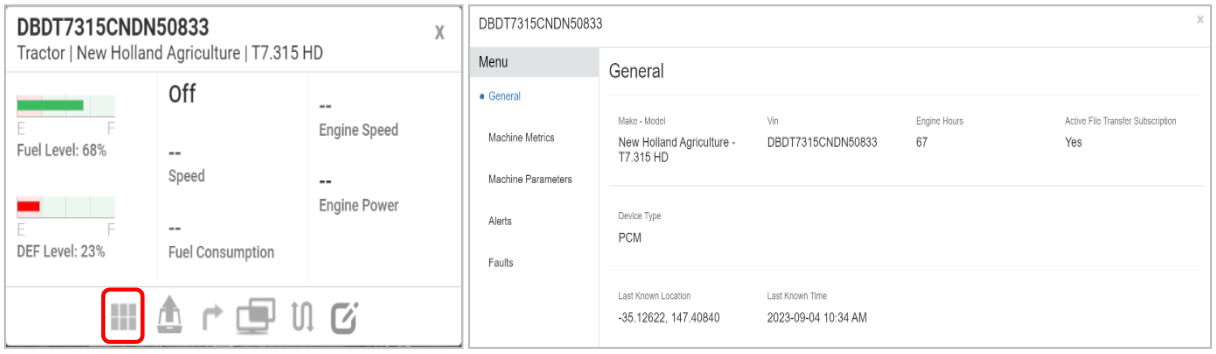
7.1.8.5.1 Machine Location

To view current/live location of the machine, Simply click on **"OFF LOGO"** present before it.



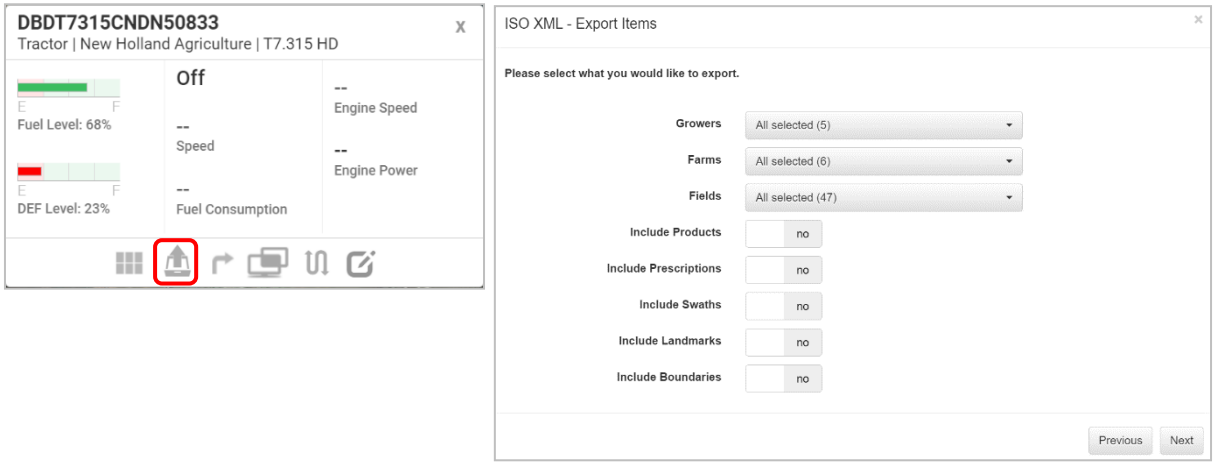
7.1.8.5.2 Machine Details

Already discussed in section 7.8.8.3



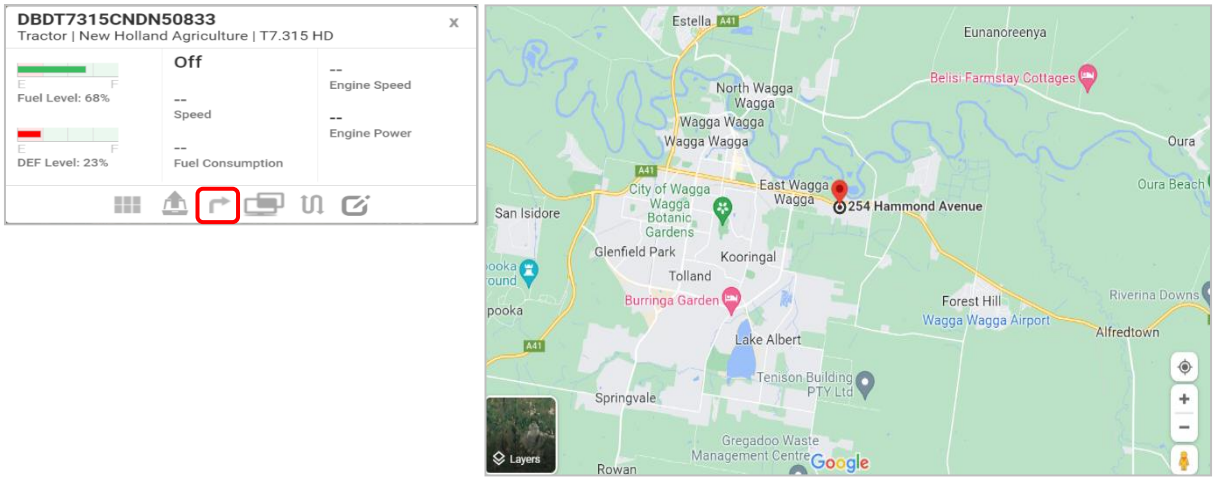
7.1.8.5.3 Send File

You can export/send a task to the machine by clicking on "**SEND FILE**" button. You can provide advance details such as selecting the specific grower, farm, field. Some extra details regarding including product, landmarks etc.



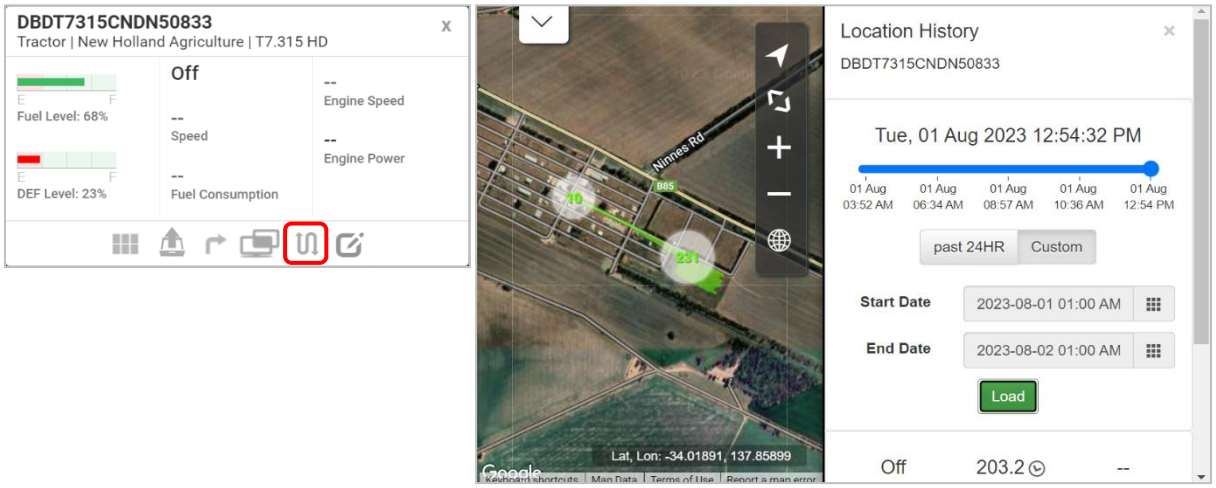
7.1.8.5.4 Location on Google Map

To get directions towards the machine, Simply click on **"LOCATION"** button and this option will guide through google maps



7.1.8.5.5 Machine Movement History

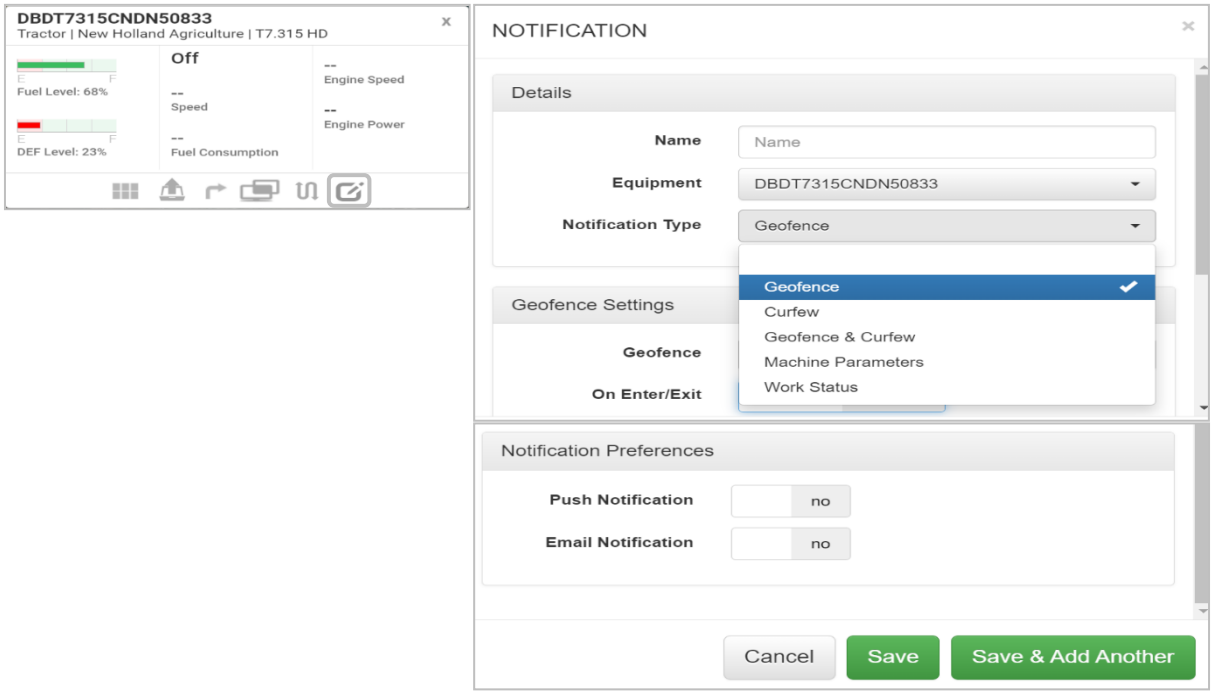
Already discussed under section 7.8.8.4



7.1.8.5.6 Create Notification

This portal is not just limited to predefault alerts; Therefore, Notifications can be created according to one's preference. This can be done via providing inputs such as:

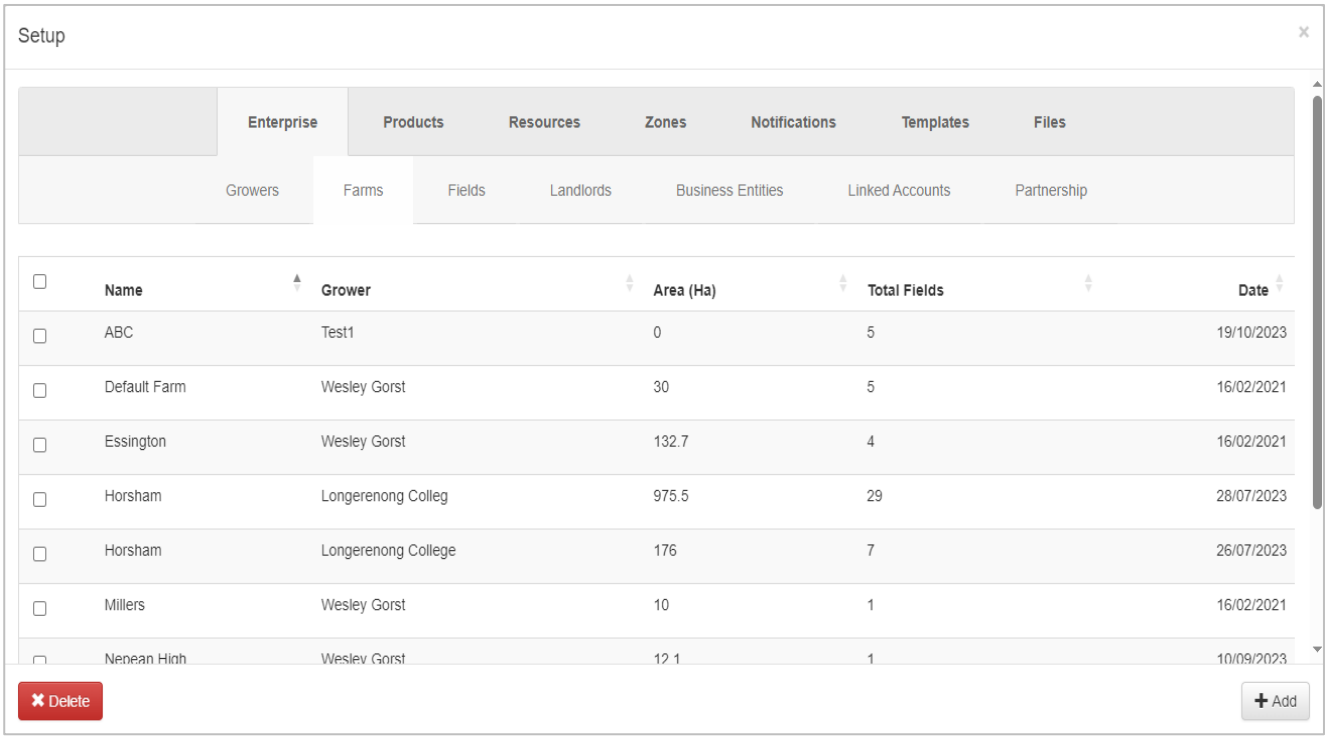
- Notification name
- Notification type
  - Geofence – zone to not enter or leave,
  - Curfew – timing when the machine should not be started,
  - Both Geofence and curfew,
  - Machine parameters – temperature, RPM, fuel level etc
  - Work status
- Select notification preference (SMS/ Mail) and
- Click on save button.



7.1.9 Setup

All the '**Setup**' activities done on the portal can be viewed in detail under this option.

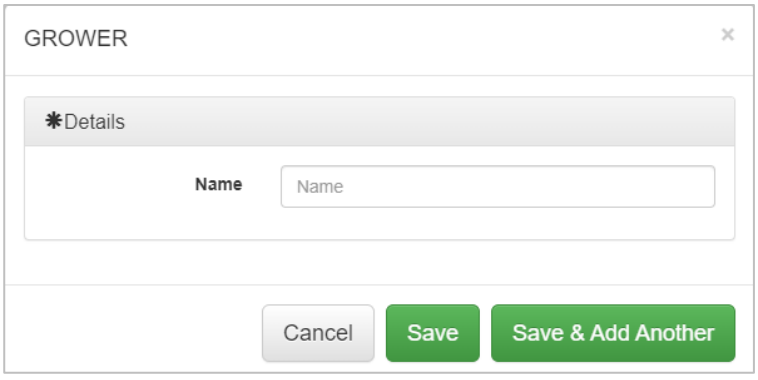
You just need to select the function ie. Grower, Farms, Fields etc. On clicking a particular entry one can edit or delete it.



To delete multiple entries, simply select those with the checkbox provided & click "**DELETE"** button

provided in the left bottom corner of the window

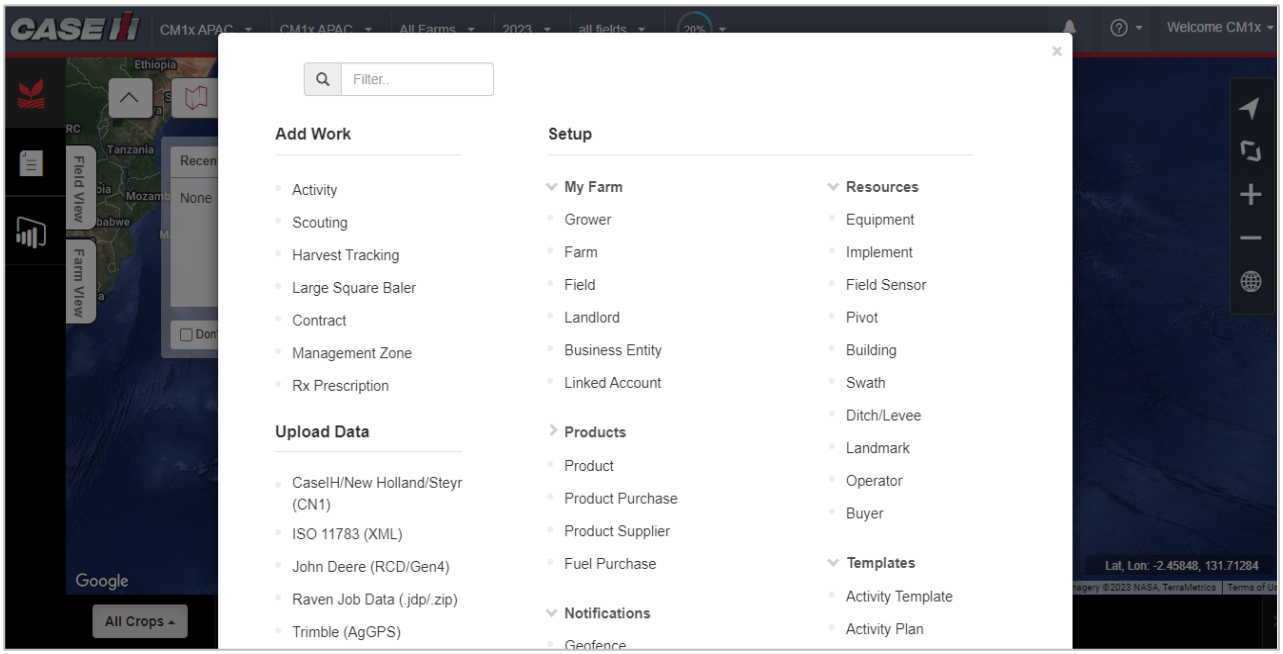
To create a new set up for any function, First select it from the panel & Simply click on "**ADD"** button provided at the bottom left corner of the window



7.1.10 Add

This option is a shortcut cum one stop for adding any of the feature of the portal whether it be related to adding a work, Setup, Resource, Product, Uploading of data, Creation of notification and Template.

You just need to select the desired option and fill the details that pops up in the window



Taking example of 'Upload data' to explain working of this feature

- Upload Data

  To upload a data for visualisation on the farm or field this feature is used. You can do so by following below steps:

1. Under upload data select the type of data file you will be uploading(CNH we use CN1 files)

2. Click on **"PLEASE SELECT THE FILE TO UPLOAD"**

3. Find the file on your computer and click open to upload into the portal
4. The system will process the file, Once completed the system will begin to read the setup data.
5. A window will open showing the data the system read. Check the boxes to import the desired data
6. Click Finish

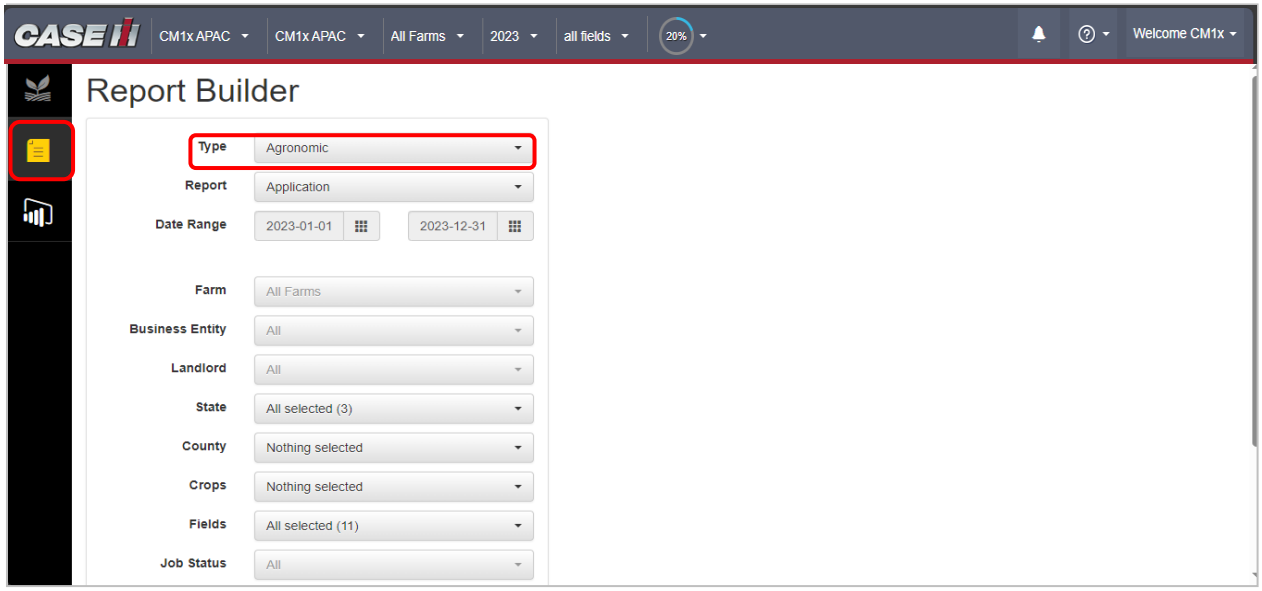
7. The system will begin to import the data. (The time this will take will vary based on the amount of data being imported.)This can be viewed under process status
8. The process status screen will be displayed once the importing is successful, and the system will finalize the importing of data
9. A green bar will be displayed at the top of screen advising the successful import of the data.

7.2 Reports

Present at the bar on the left corner of dashboard, Second option is of **"REPORTS"** or **"REPORT BUILDER"**. This feature provides two types of reports i.e., "'**AGRONOMIC"** & **"FLEET/MACHINE"**

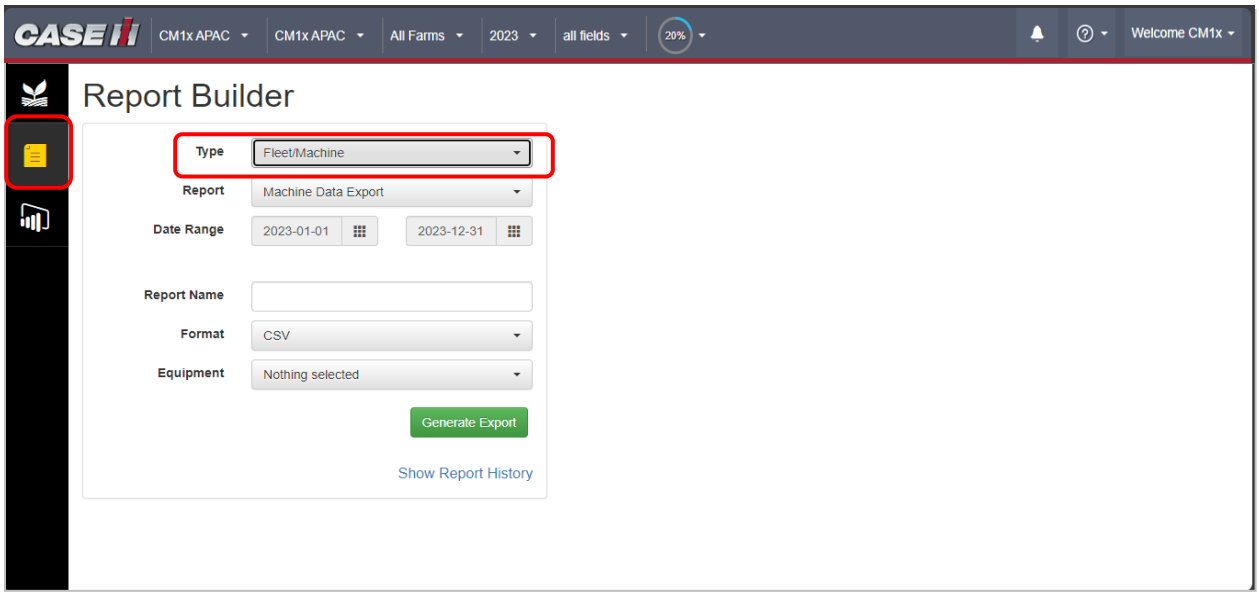
7.2.1 Agronomic Reports

You need to select report type as agronomic and enter other details as asked. On successful providence of inputs, you can view or download report as in pdf/excel/csv format.

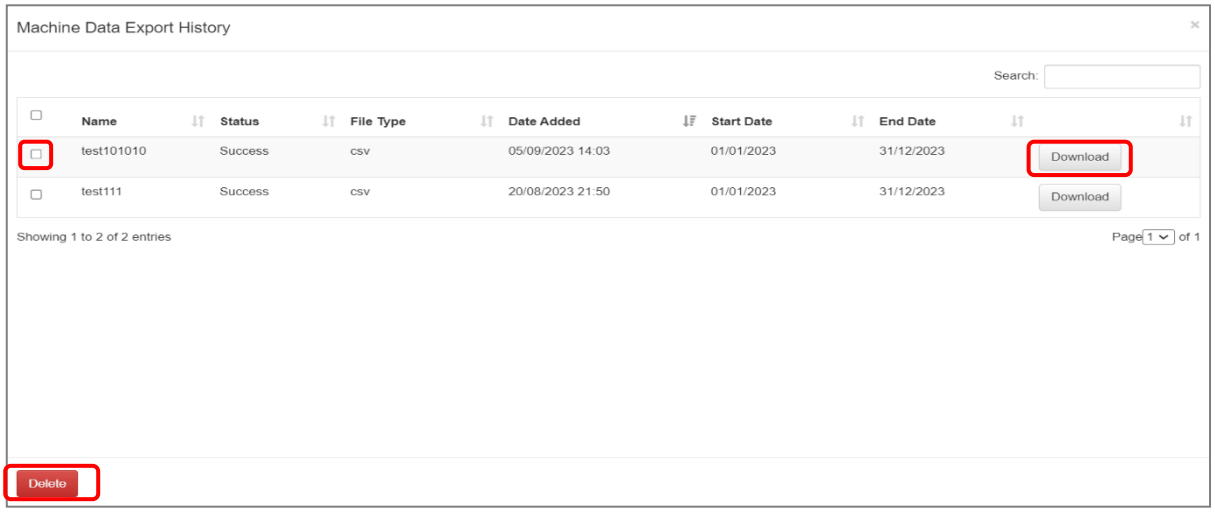


7.2.2 Fleet/Machine Report

You need to select report type as fleet/machine and enter other details – date range, report name, file type & equipment. Then click on "**GENERATE EXPORT**" button , after a while "**DOWNLOAD FILE**" button will be available. You can click and download report file.

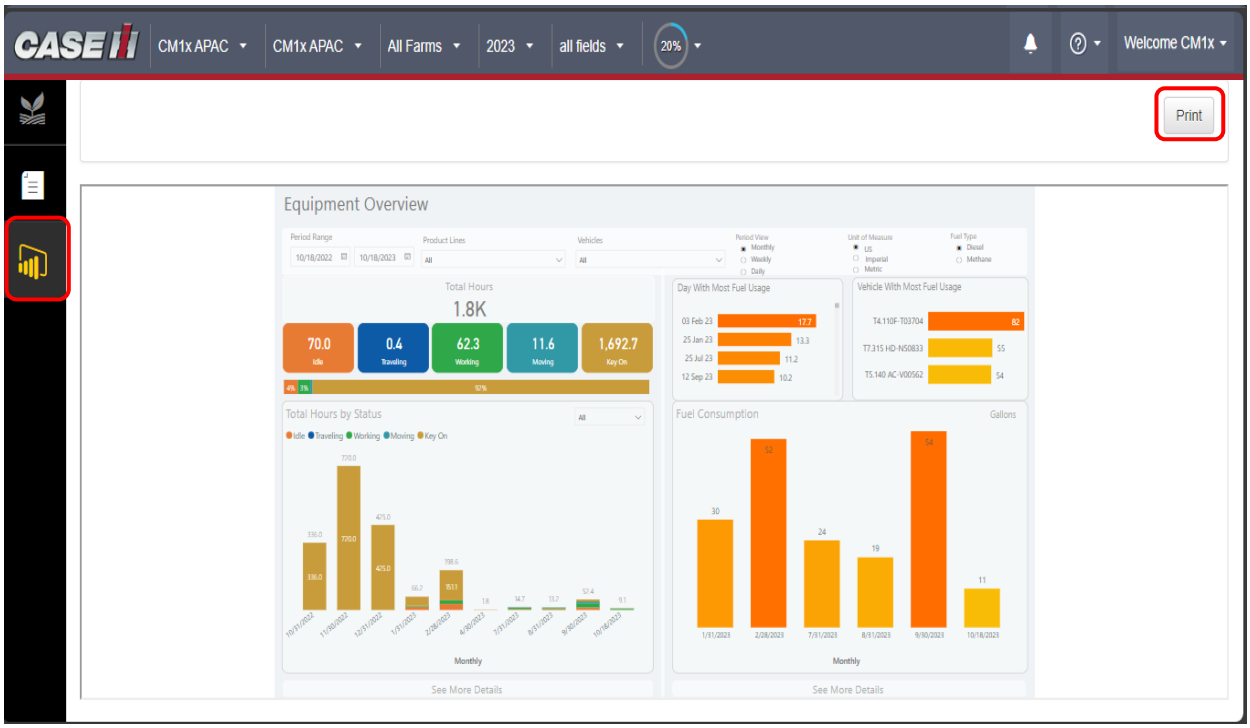


Moreover on clicking **"SHOW REPORT HISTORY"** button one can view reports history. Here user can select the past report and perform actions - download & delete.

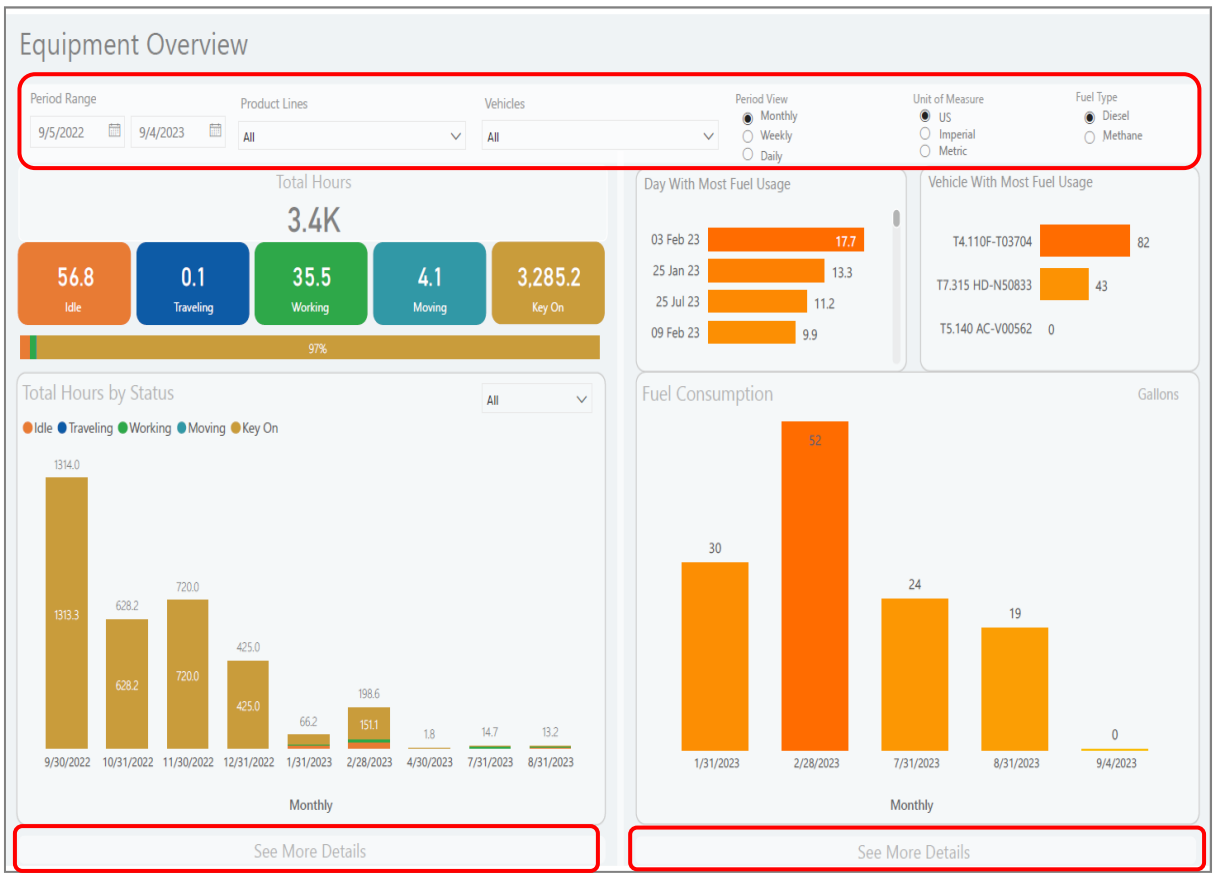


7.3 Insights

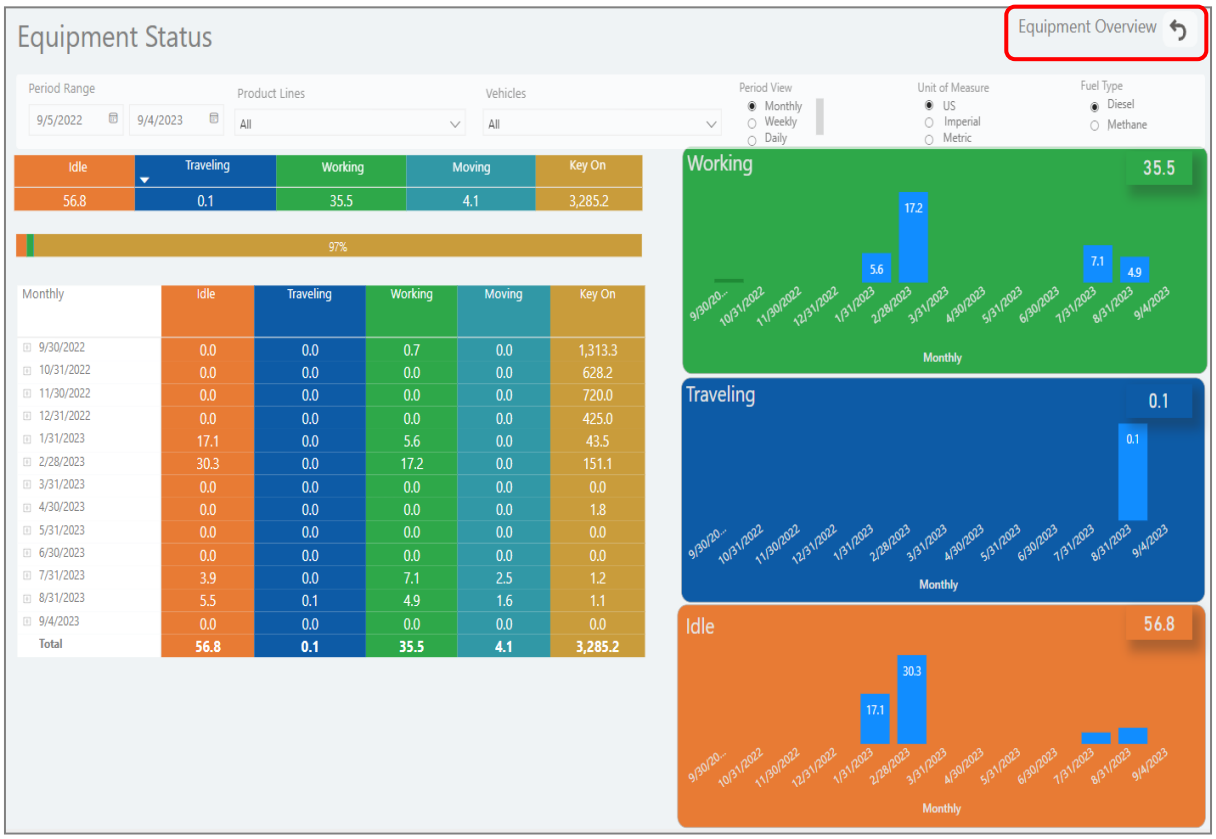
Here, you can view graphical representation of machine total hours and fuel consumption. This data can also be downloaded in pdf form of the information available here by clicking on "**PRINT**" button.

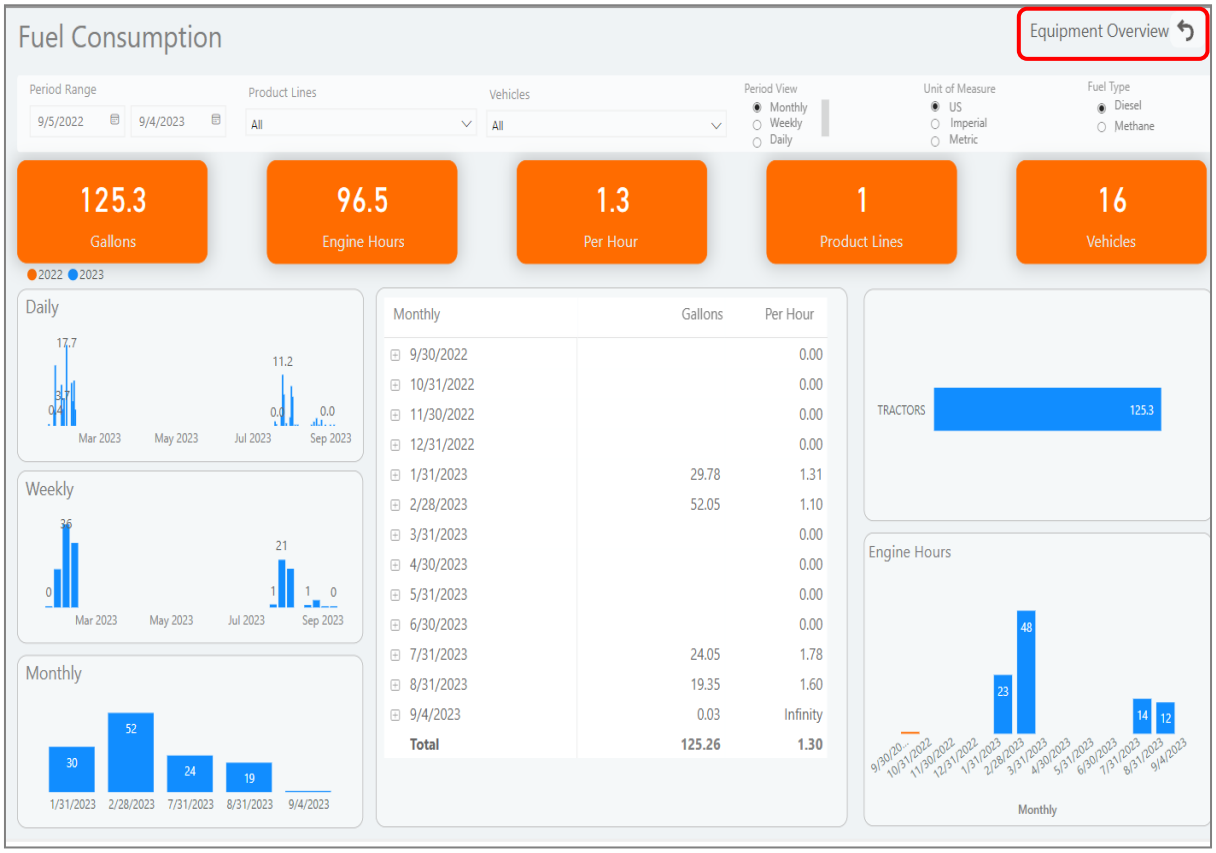


You can filter this data based on date range, product line, and vehicle. Also, data representation can be according to monthly, weekly, or daily. Similarly view data in US, imperial or metric units.



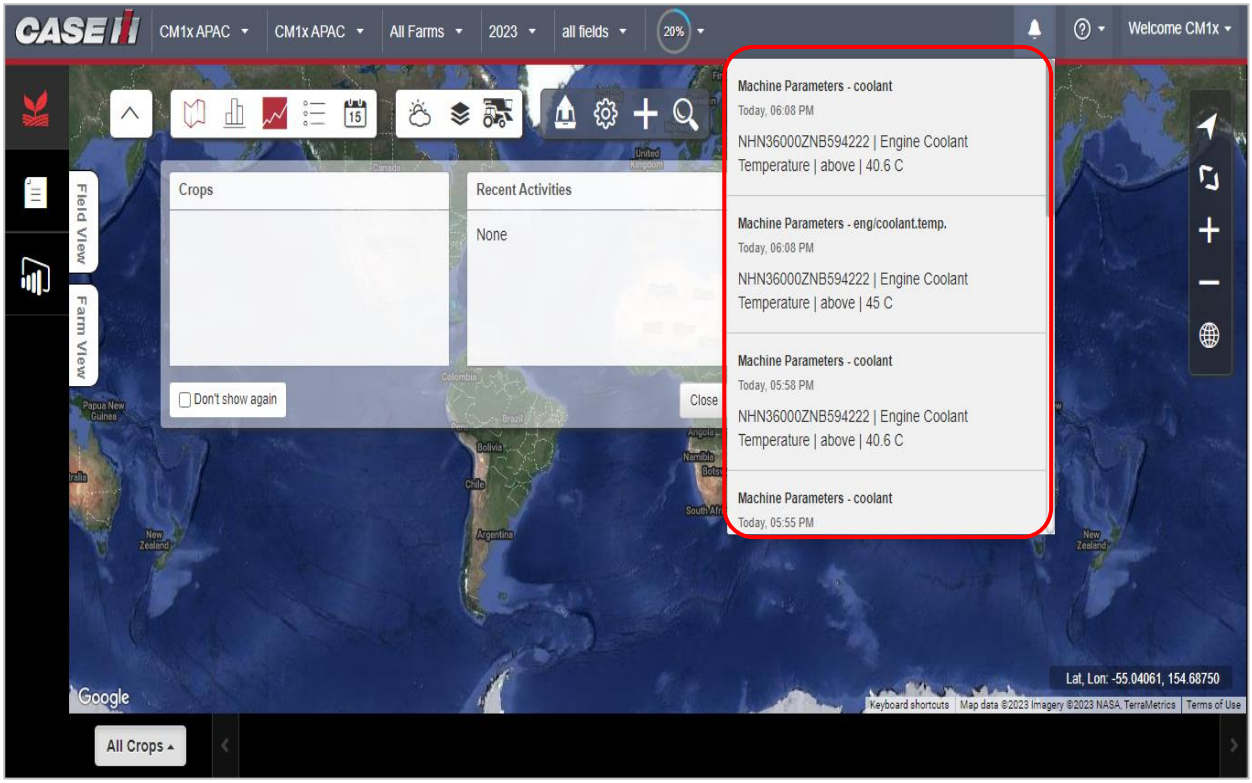
You can click on **"SEE MORE DETAILS"** button to view more detailed reports on total hours and fuel consumption. User can click on go back on insights page using **"BACK"** button





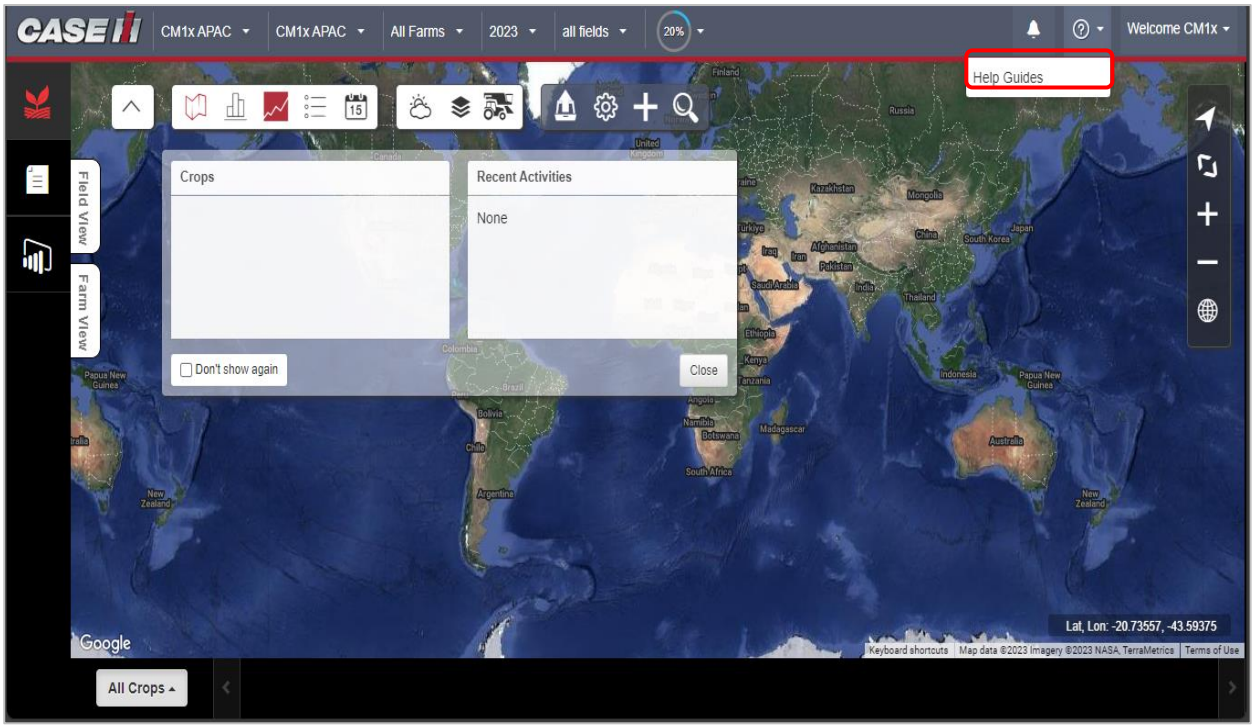
7.4 Notifications tab

Under the notifications tab, you can view history of notification for all units under one window with date & time of alert popped.



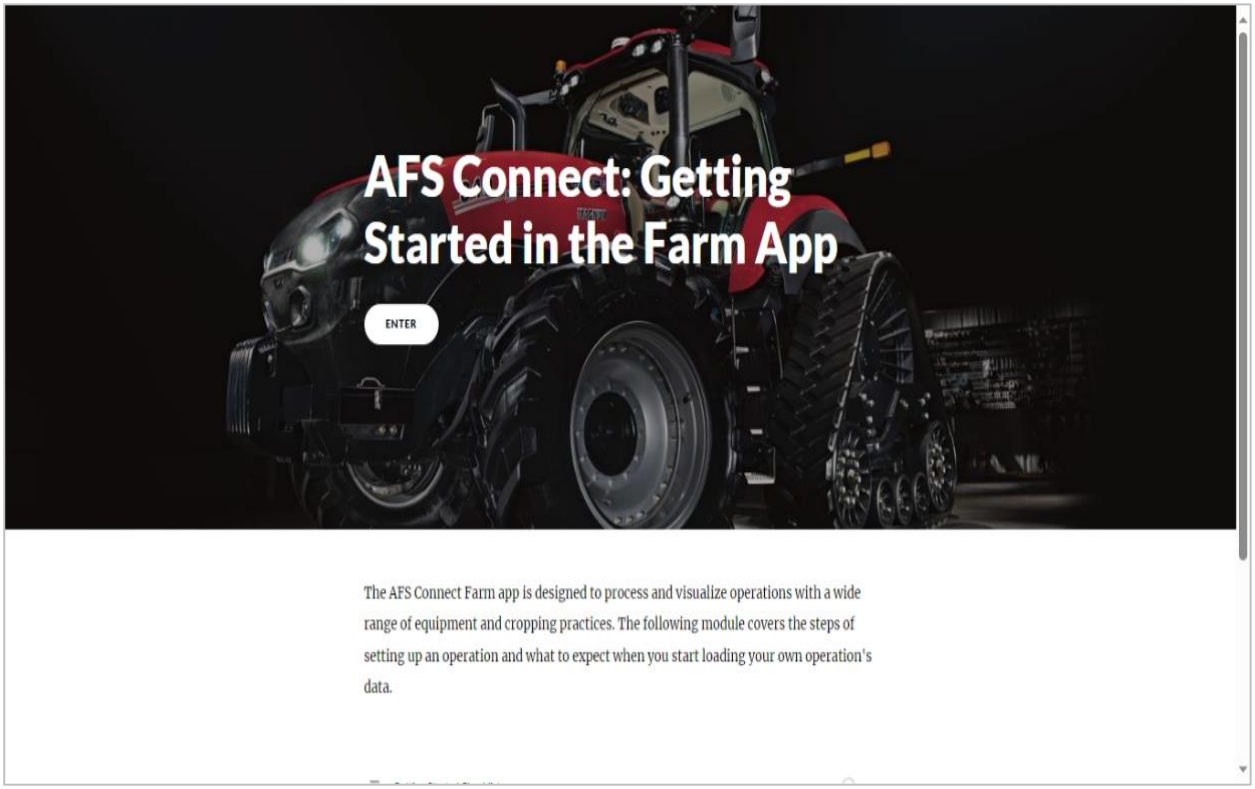
7.5 Help guides

On clicking the help guides you will be redirected to a new page where one can find content related to Operations, Functions & Features of the portal

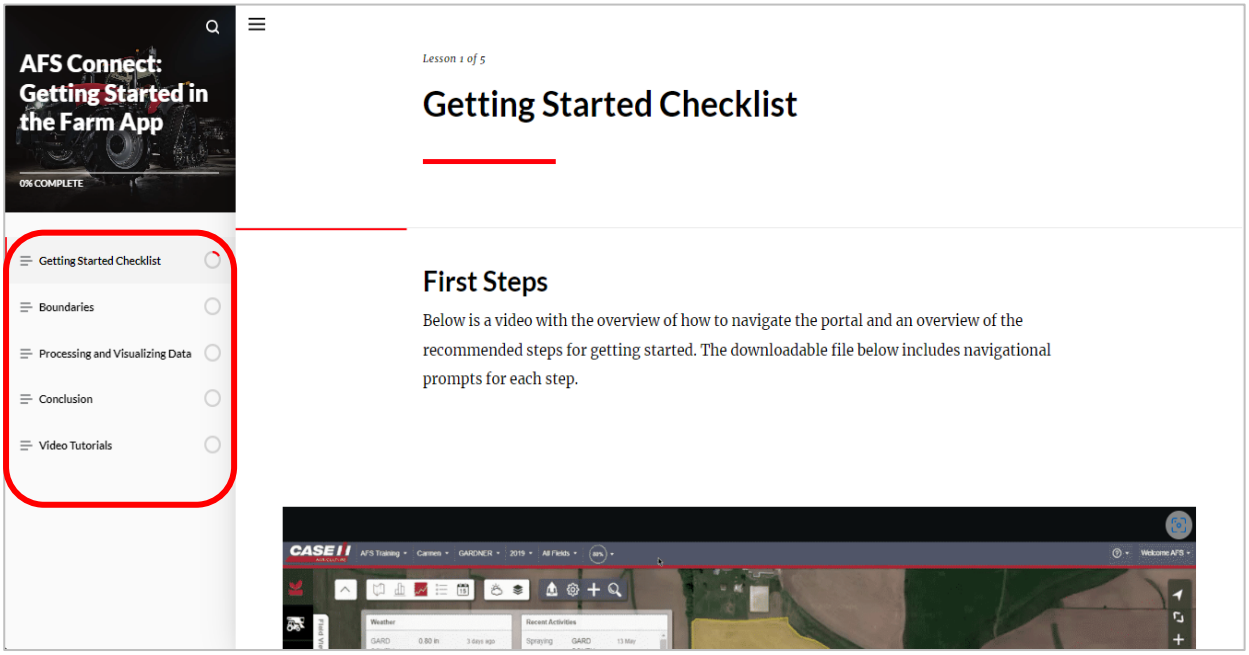


7.11.1 Overview: Help guides

On clicking on help guides a tutorial having different sections regarding the portal can be viewed

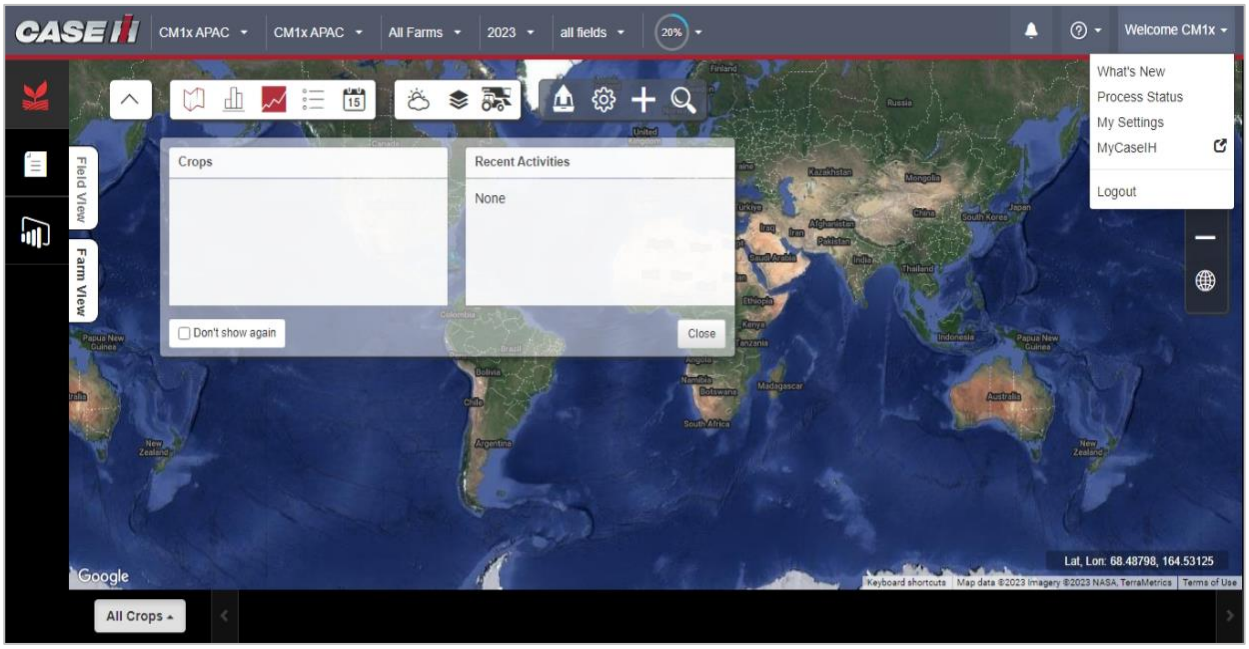


You can scroll through 5 sections wherein which you can get basic information regarding AFS Connect portal, How to create/set boundaries, Steps to visualize & process data (upload CN1 files to server) & some video tutorials about the features of the portal.



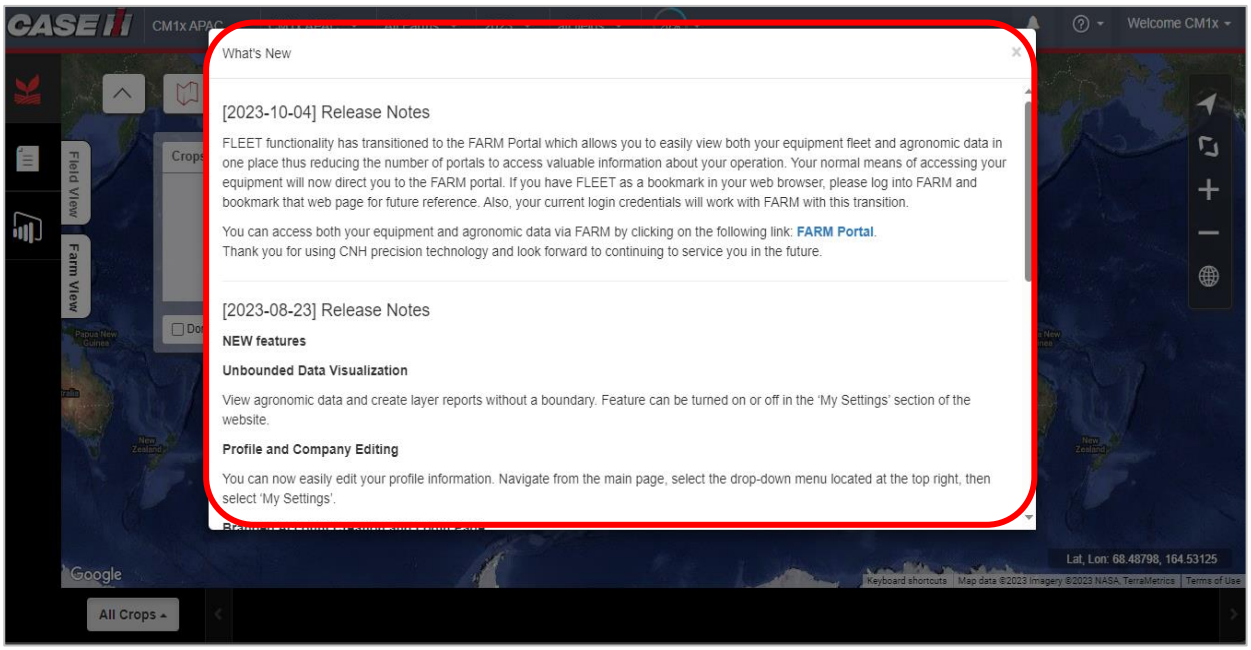
7.6 User icon

You can find this option in topmost right corner of the portal. This tab offers five options i.e. What's new, Process status, My settings, My CaseIH & logout which are discussed briefly in coming sections



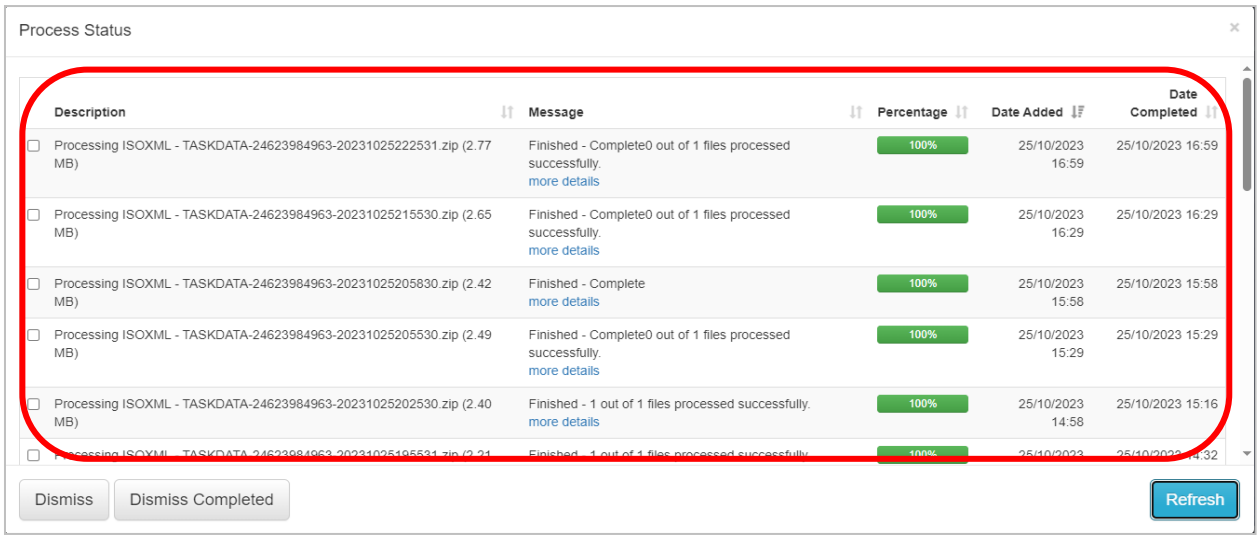
7.6.1 What's New

On clicking what's new option, You can go through release notes (if any) related to portal. This basically helps the one to be up to date with the application/portal & get timely notifications about new introduction/modifications in the portal's features.

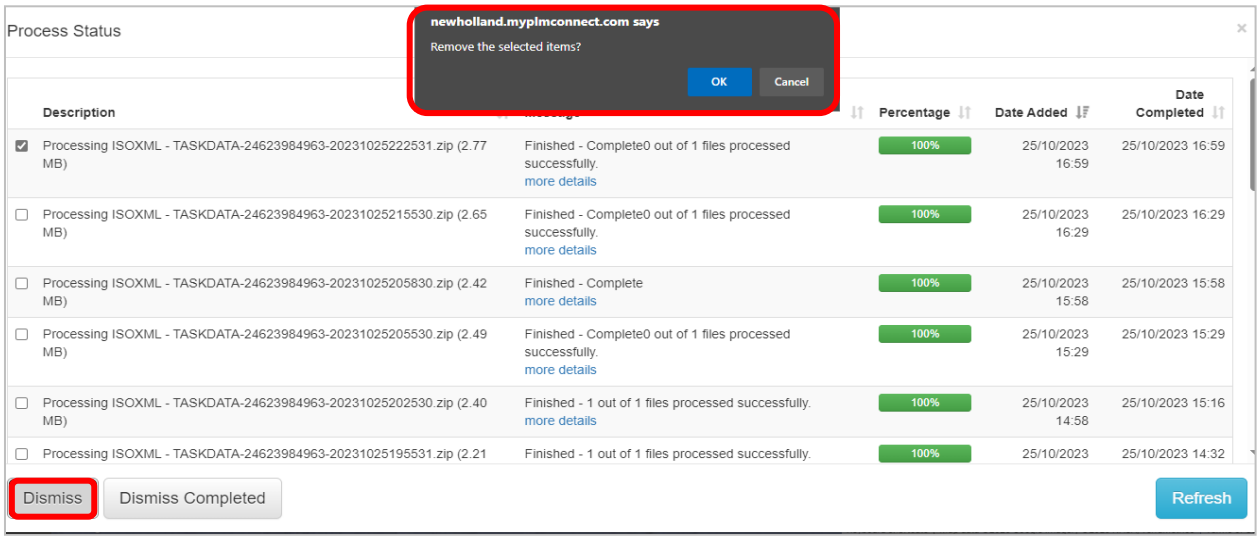


7.6.2 Process Status

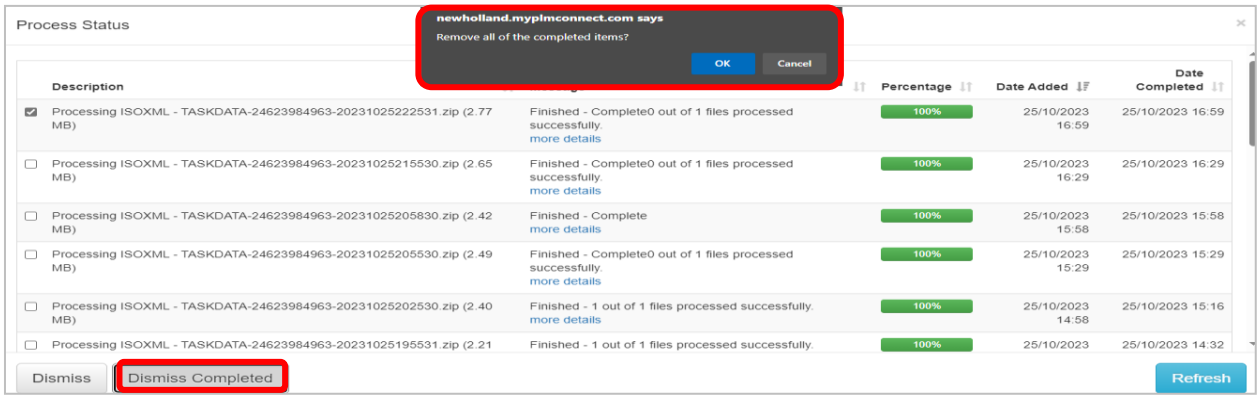
You can view the status/progress of file, rule exported to the machine and CN1 file uploaded to the server.



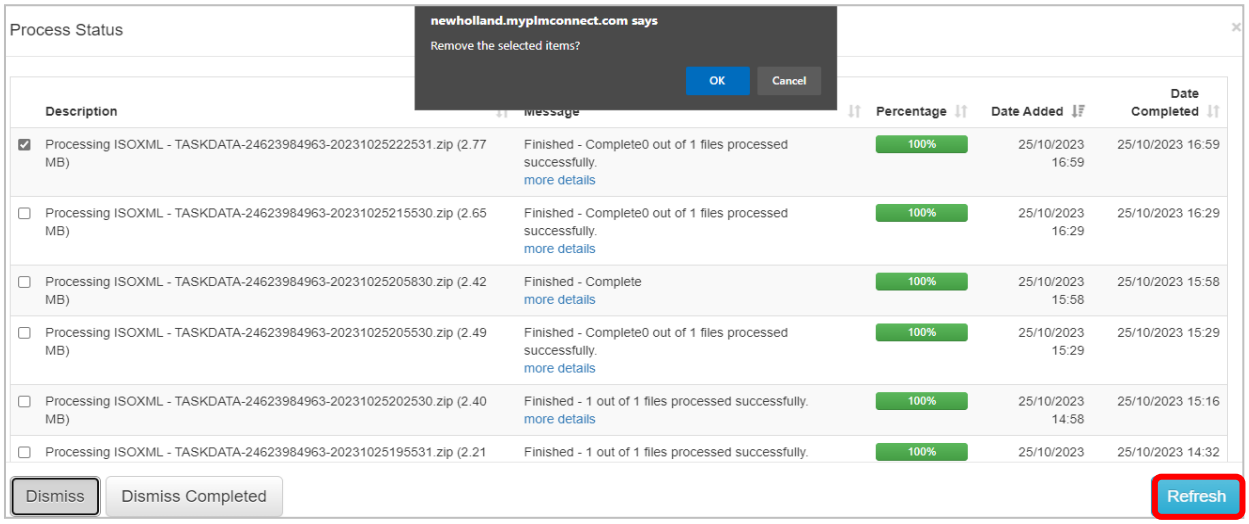
To dismiss/stop a process or to clear it after 100% completion from the list, User can select that particular process and simply click on 'Dismiss' button mentioned in the left bottom corner of the status screen



To dismiss/stop all processes in one go or to clear them after 100% completion from the list, You can select that particular process and simply click on '**Dismiss all**' button Dismiss mentioned in the left bottom corner of the status screen



In order to refresh the status of all the ongoing processes, You can do so by clicking '**Refresh**' Refresh option that can be found in the bottom right corner of the process status window

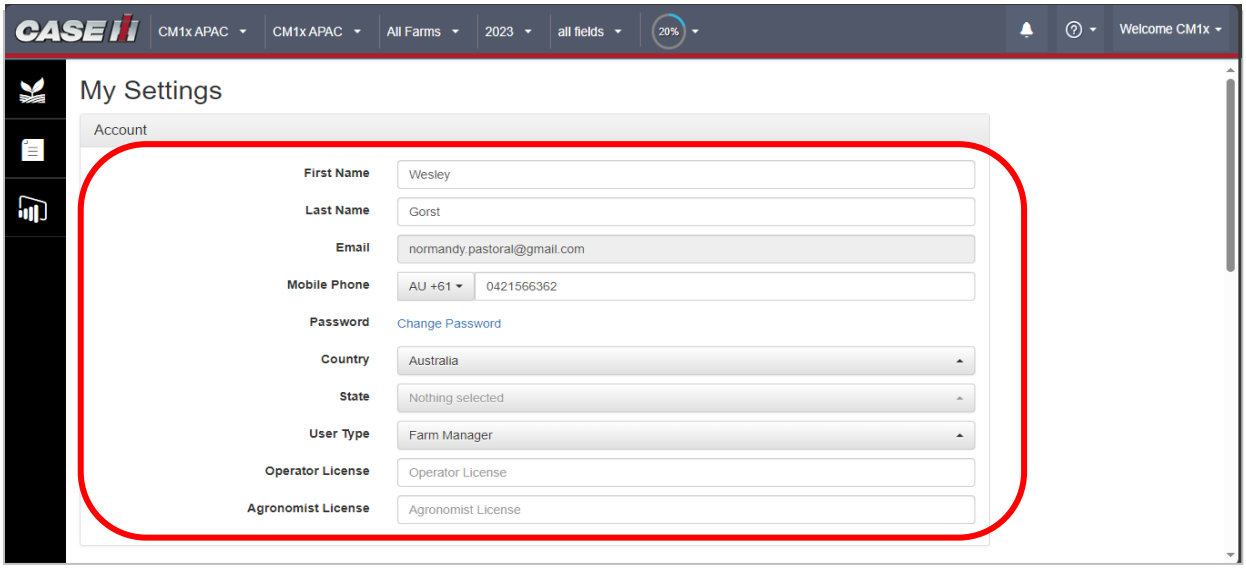


7.6.3 My Settings

You can modify few basic settings 'Related to account, Preference & Notification' when clicking on my settings option. Information related to account user such as

- Name
- Email
- Contact information
- Location details
- Nature of user & operator as well as agronomist license

Moreover, Password can be Modified/changed under the account window of My settings



You can select and modify preferences according to choice regarding below mentioned options from dropdowns under each option that are:

- Language of the portal
- Unit of measurement that he wishes to see on portal
- Time & Date according to his region
- Currency & commodity related unit
- Data import nature (automatic or manual)
- Daily rainfall notification on mail

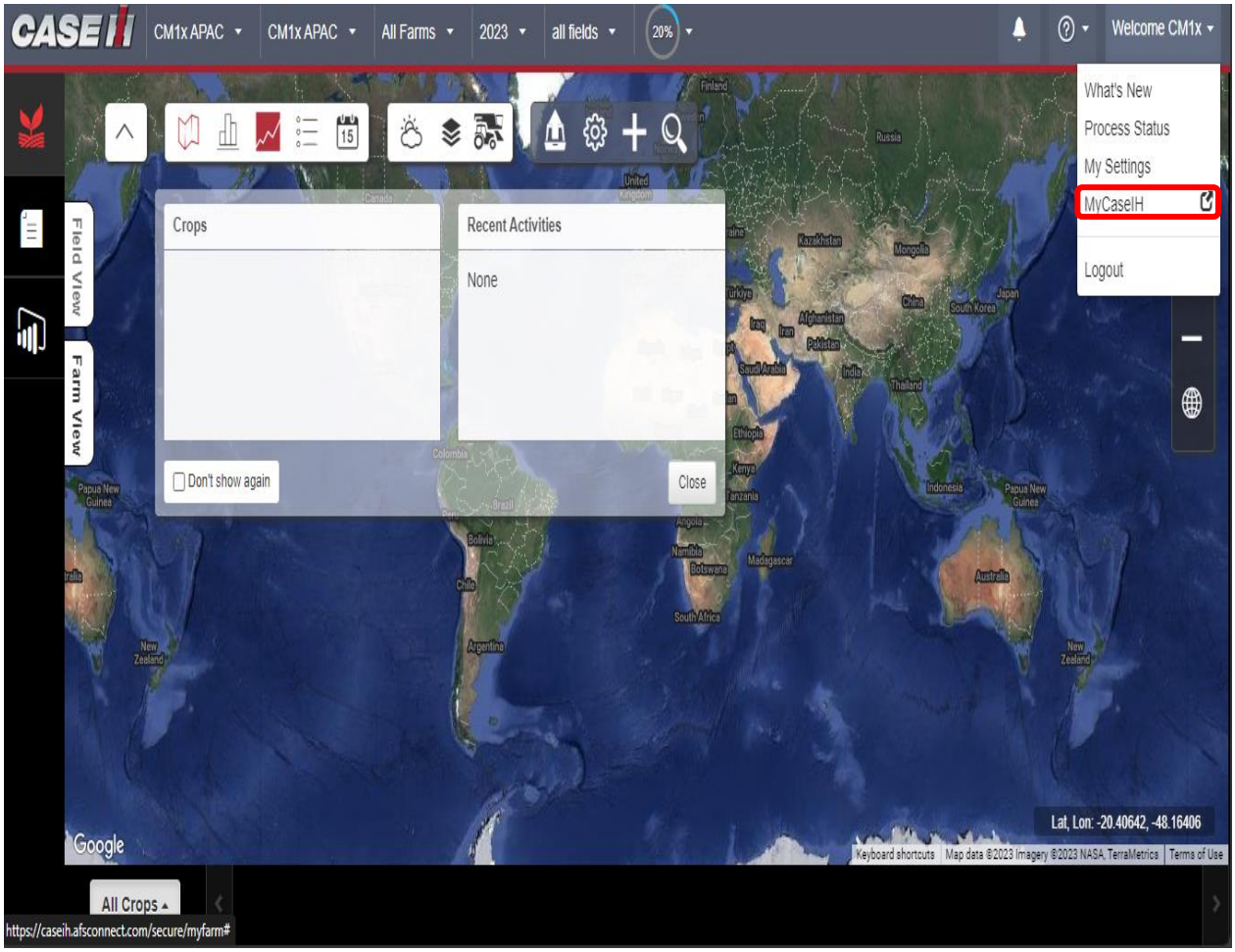
7.6.4 My CaseIH

On clicking my **"CaseIH"** button

, You will be redirected to a new window, wherein multiple options such as

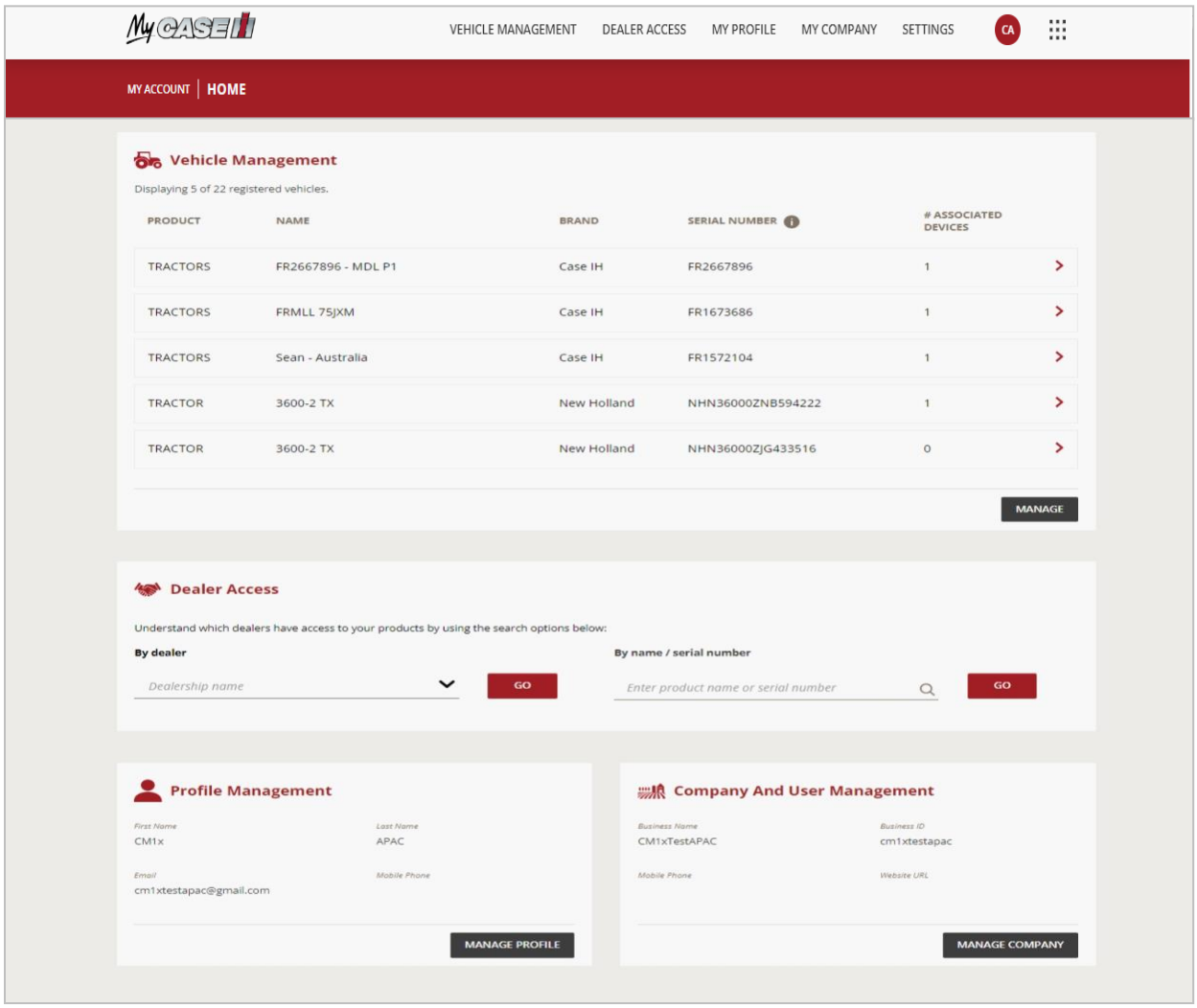
- Vehicle management
- Dealer access
- My profile
- My company
- Settings

Are available to manage Equipment, Devices, Company & profile

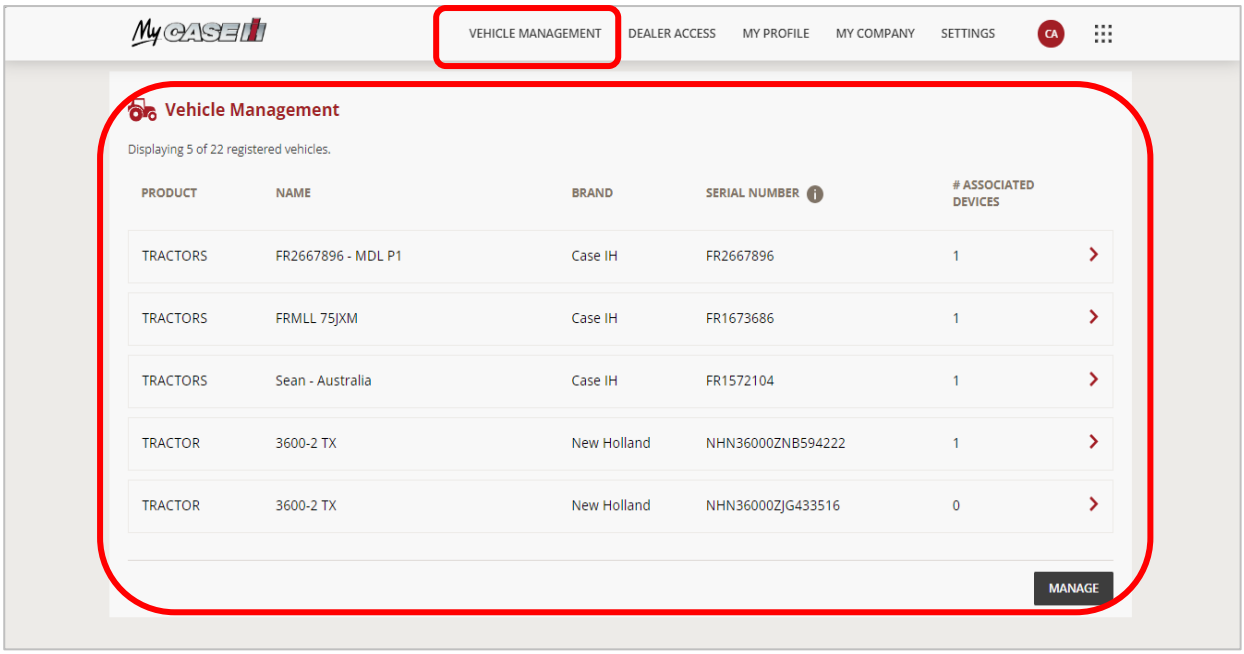


7.6.4.1 My CaseIH homepage

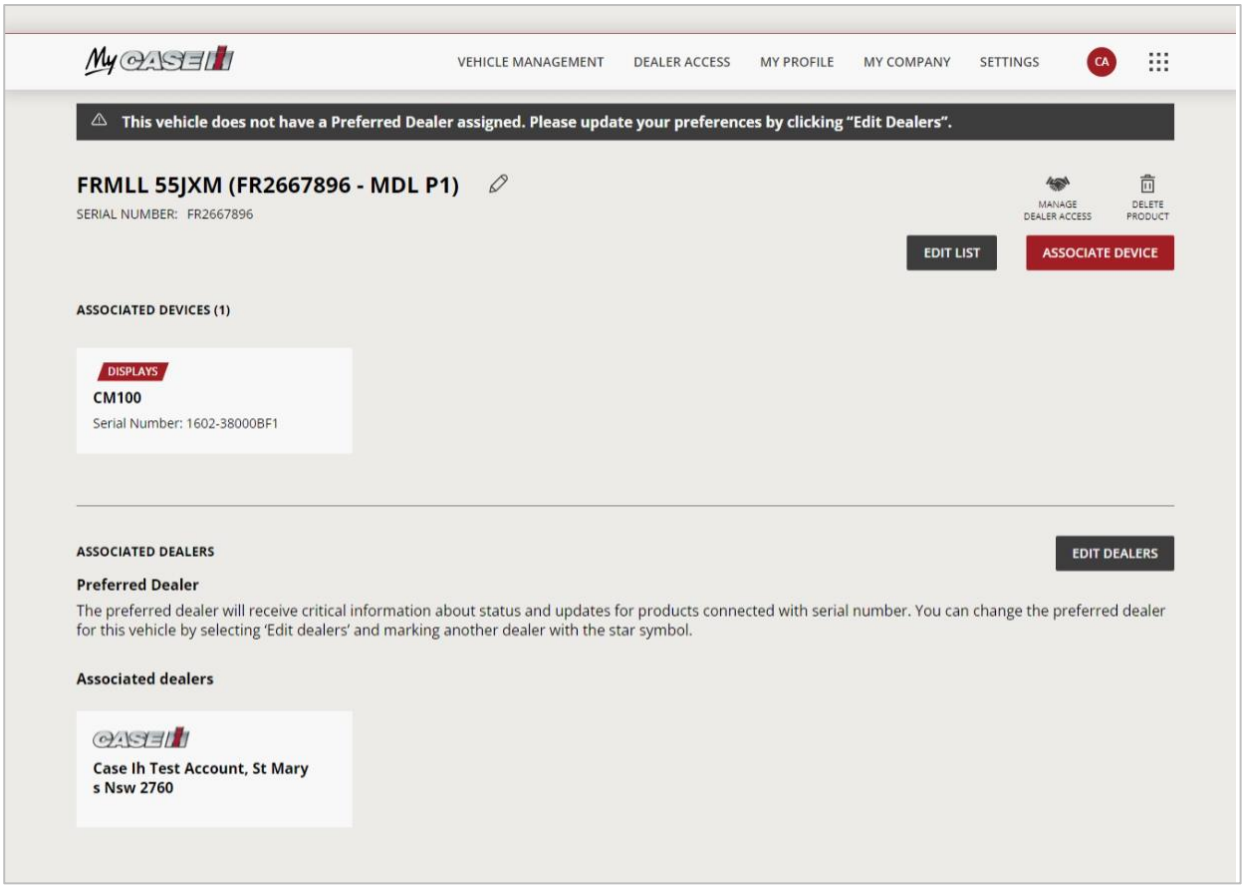
Once getting redirected to CaseIH, As shown below is the homescreen/homepage. You will be able to manage vehicle, Dealers, Profile & Company



- Vehicle management
  You can access this option through two ways (as marked). By default you can view your product's name, Brand, Serial no. & Number of associated devices

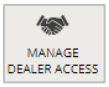


On clicking at the arrow given in the end of product , You will be redirected to detail version of that particular product that is Associated device, It's serial number and associated dealers

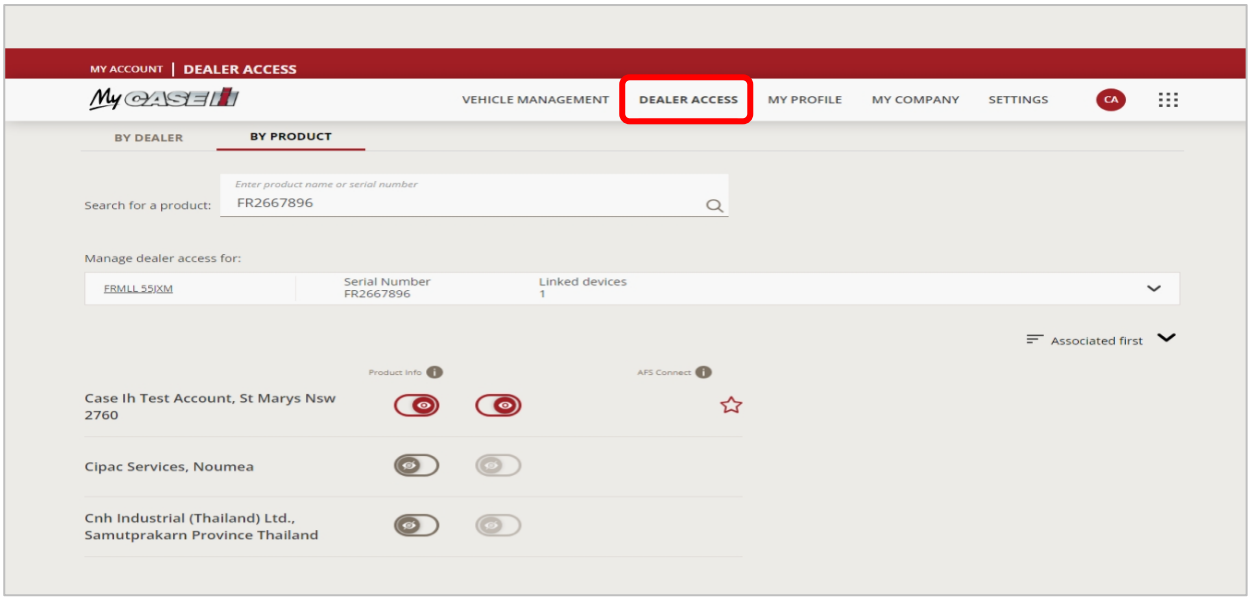


- Dealer Access

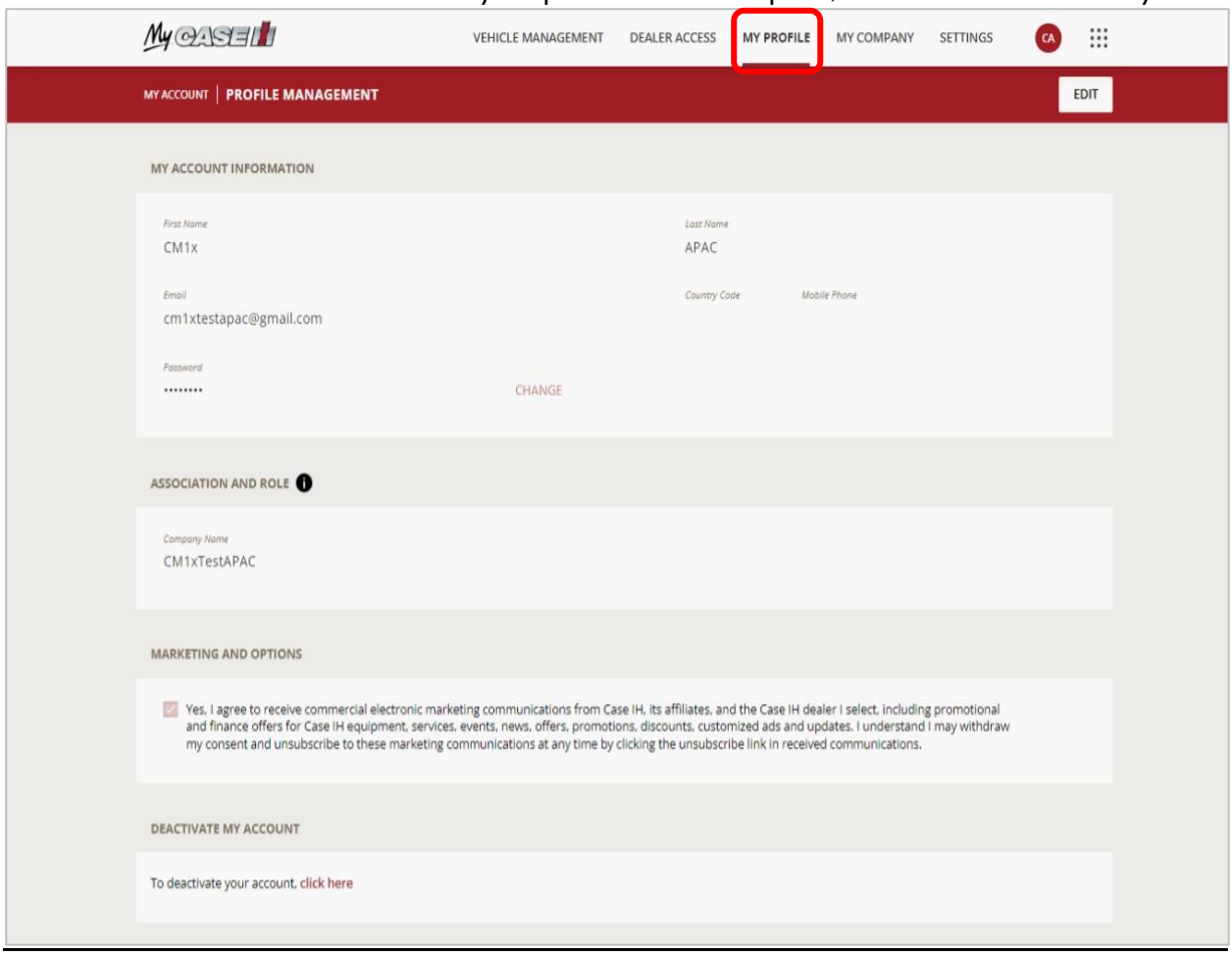
To give access of product's data to the dealer, You will need to click on the **"EYE"** button that is turned OFF by default

This option can be found under **"MANAGE DEALER ACCESS"** button 

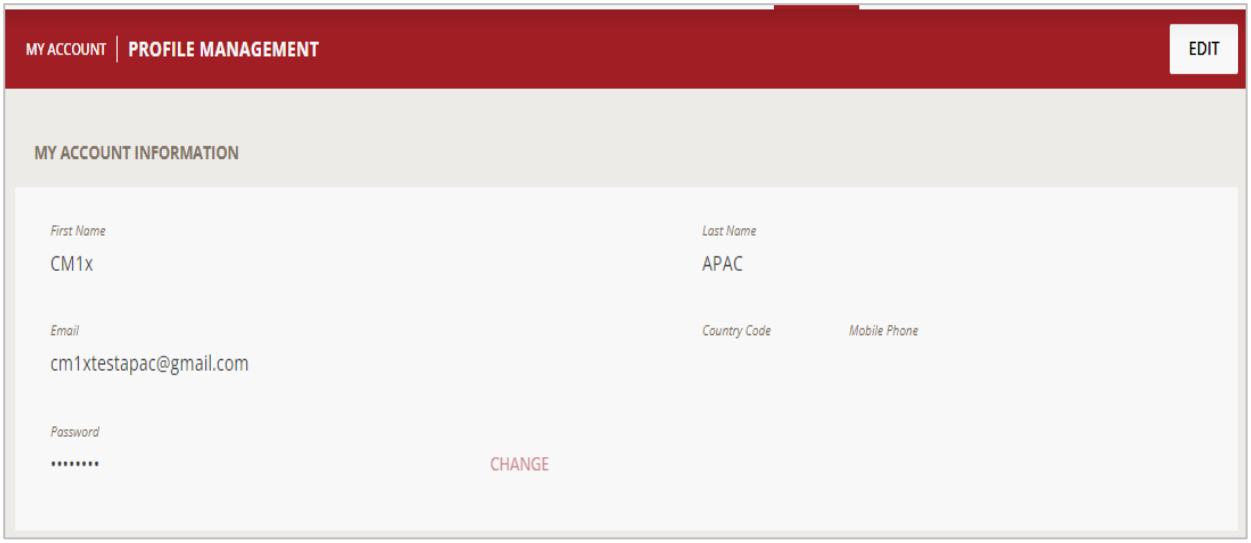
or via Dealer Access option present on the toolbar of my CaseIH feature



- My Profile
  You can view information about your profile under this option, Moreover can deactivate your account

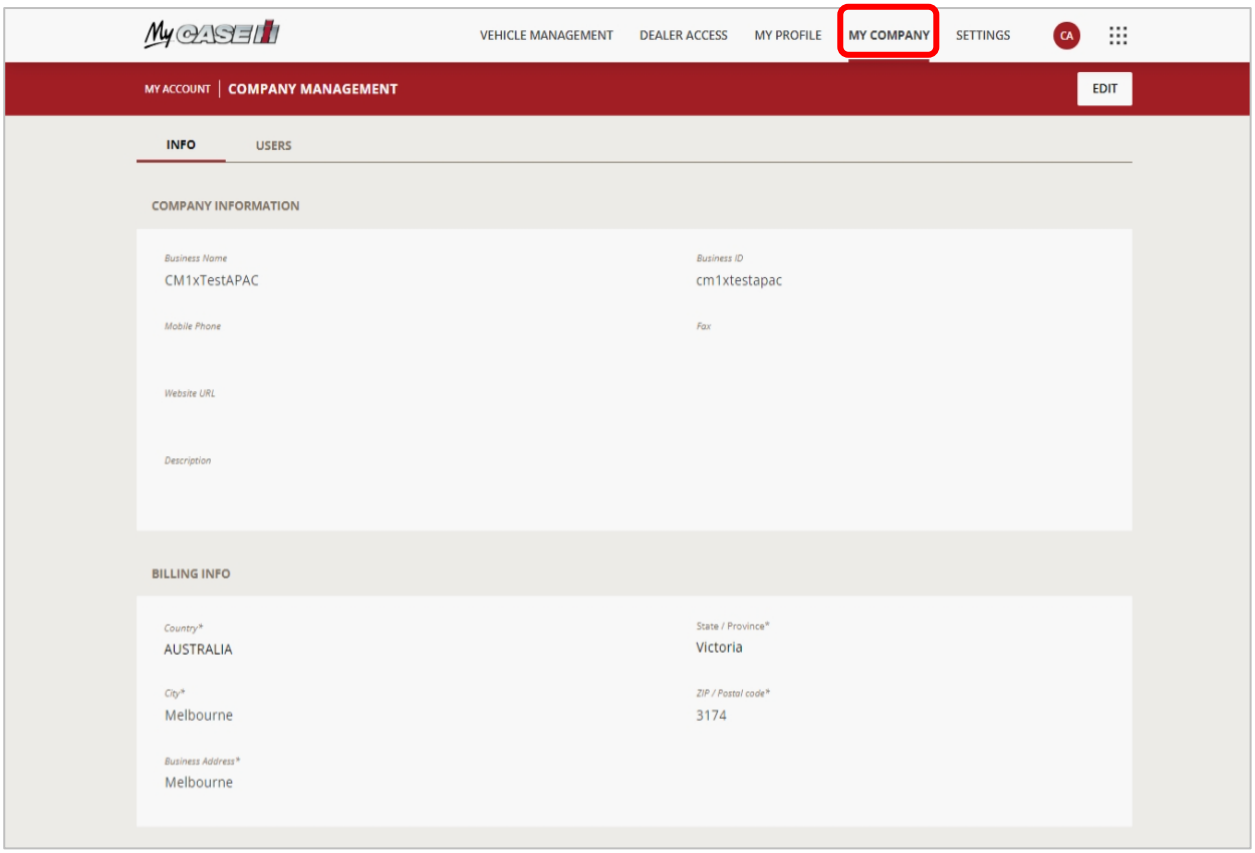


In order to edit name, phone no. and change password, Click on **"EDIT"** button



- My Company

  You can edit basic details such as business name and mobile number under this tab. It is to be kept in note that 'user email address cannot be edited here'. Click on the **"EDIT"** EDIT button to modify user details, Once completed click on "**SAVE**" which will appear on the same location to save the entered/modified information.



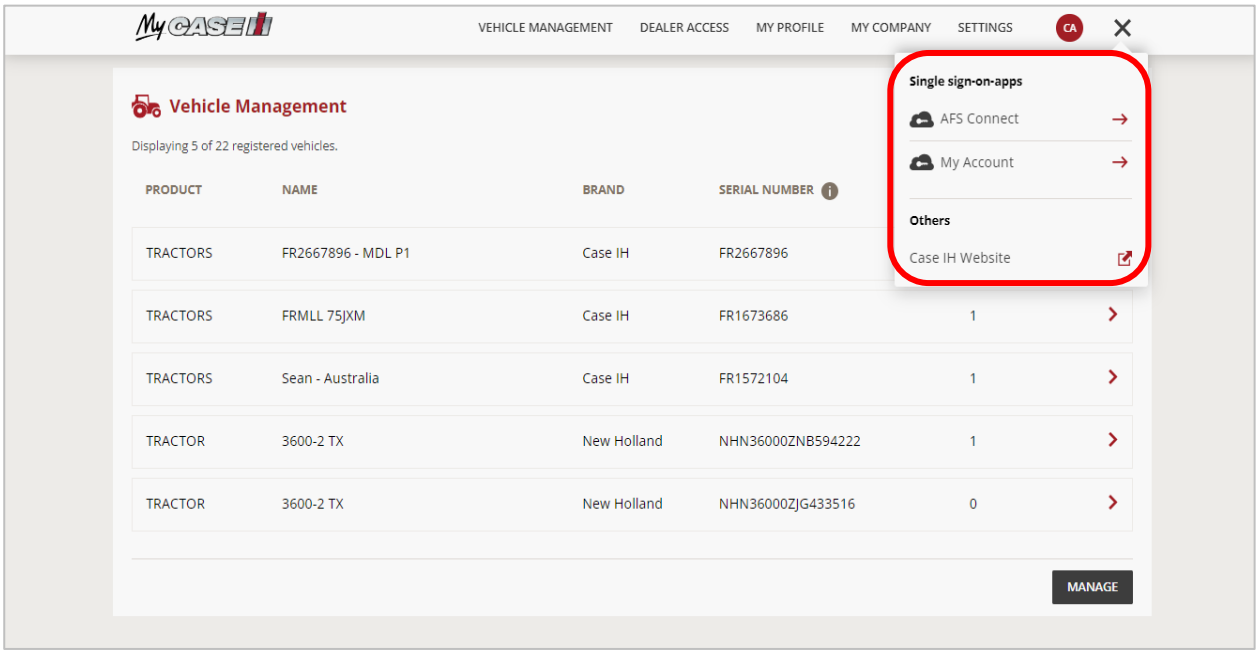
- Settings

  Settings option is a feature that allows one to set preferences and values for the different Case IH applications.

7.6.4.2 Toolbox

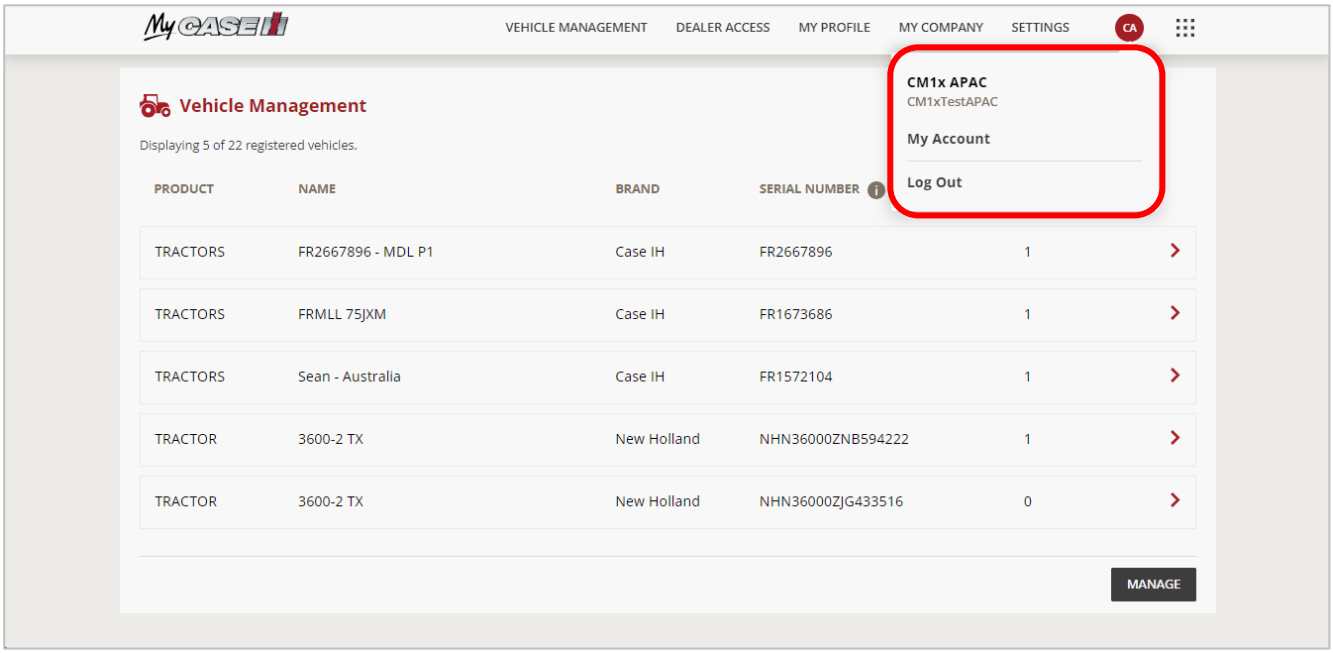
You can access to single sign-on apps through toolbox option.

- AFS Connect (already discussed under section 5.1)
- My Account (already discussed under section 5.6.4)
- Case IH website (user will be redirected to CaseIH's official website)



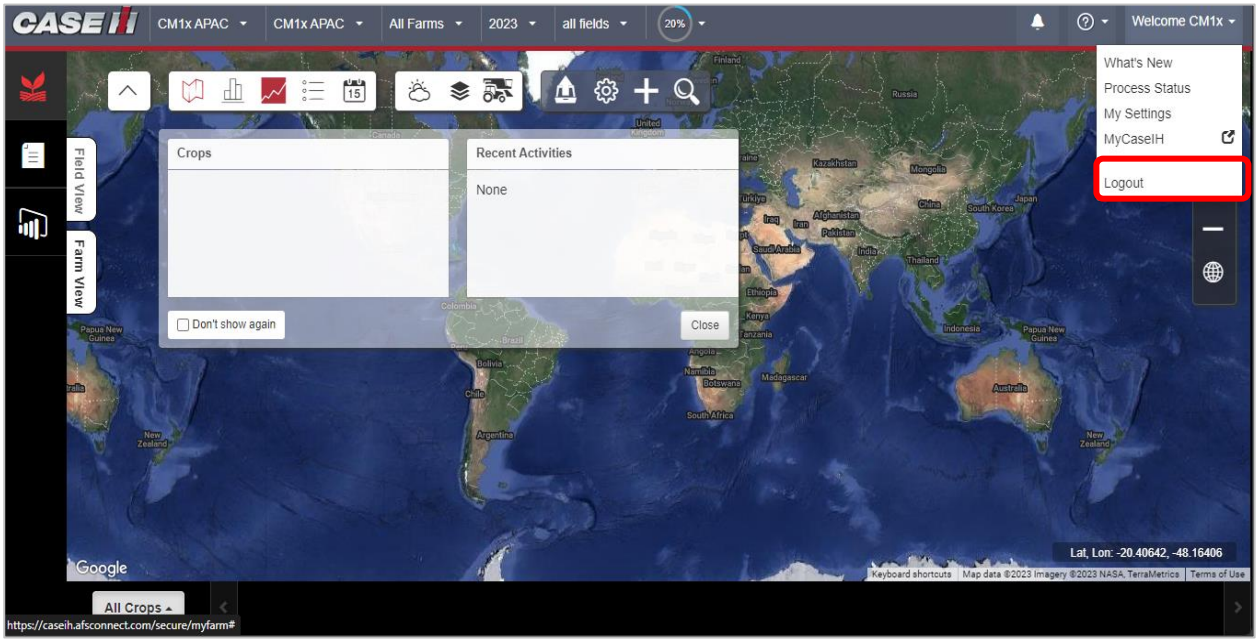
7.6.4.3 My Profile button

You can have access to logout option under this feature

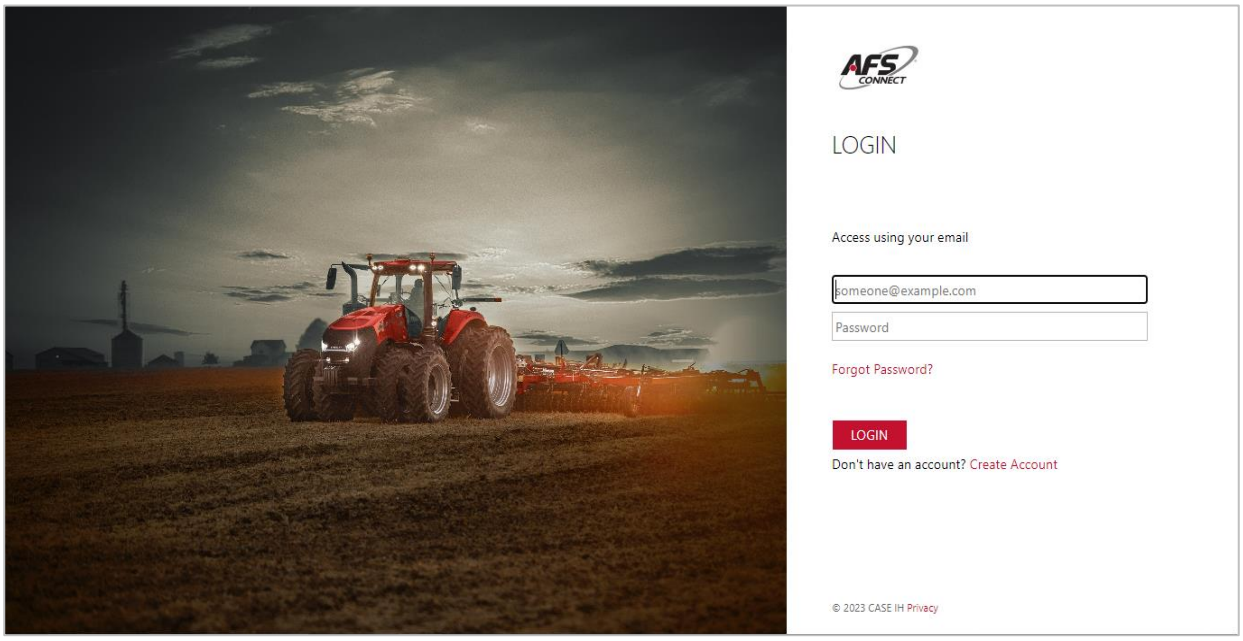


7.7 Log out

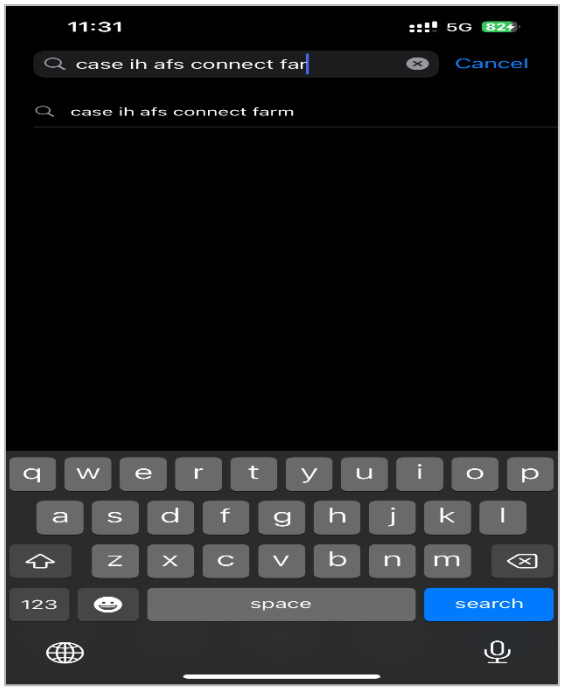
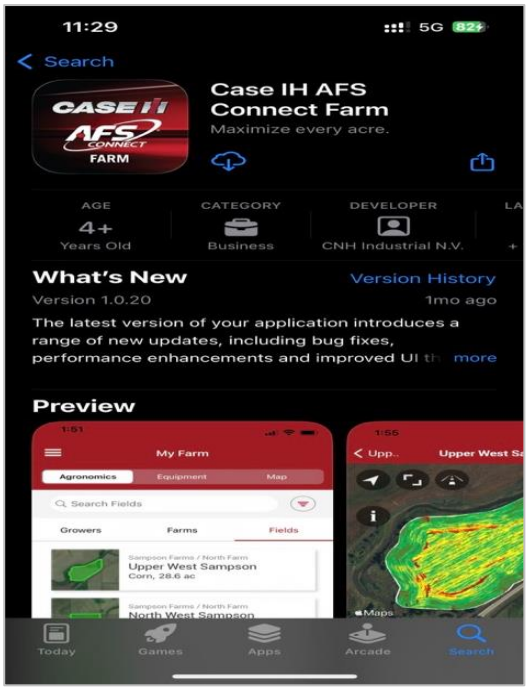
To logout of the portal you can go on "**user icon**" option and there is "logout" button present. Click on this button to logout from the portal.



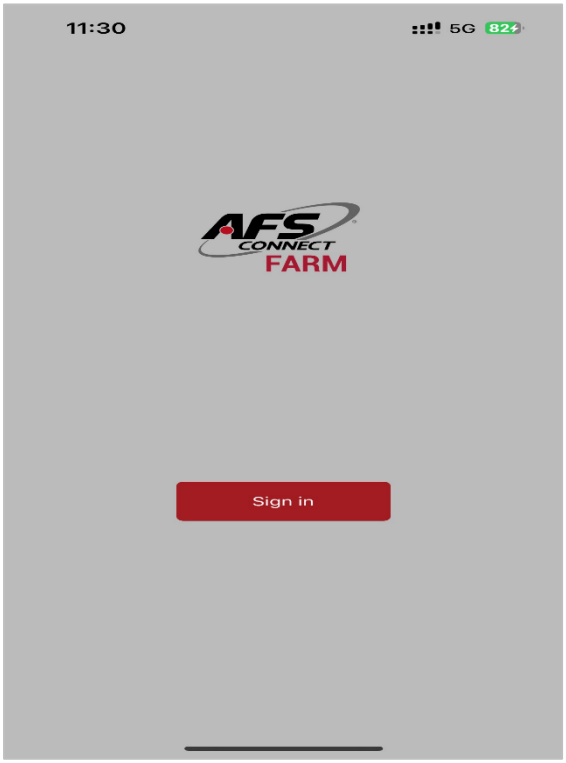
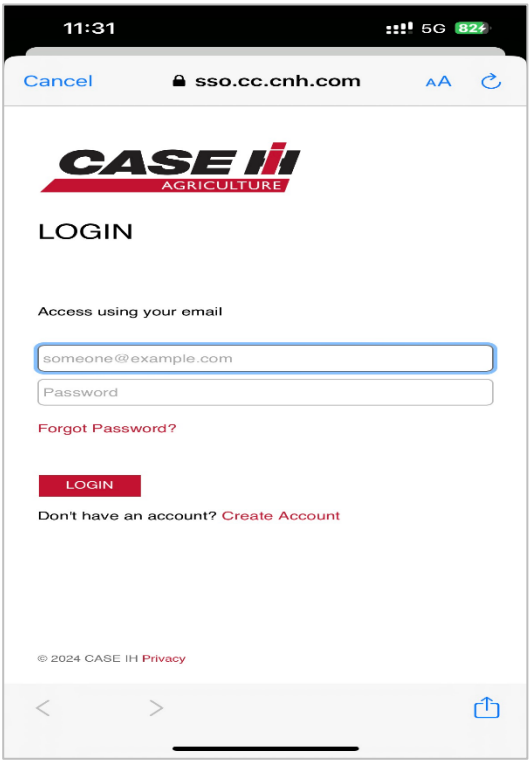
You will be redirected to login page post successful log out.



8.Mobile app-Steps to download

Step 1- Open application store on your Android/IOS device and search for 'CaseIH AFSConnect Farm app'	Step 2- Click on download button to install the application
	

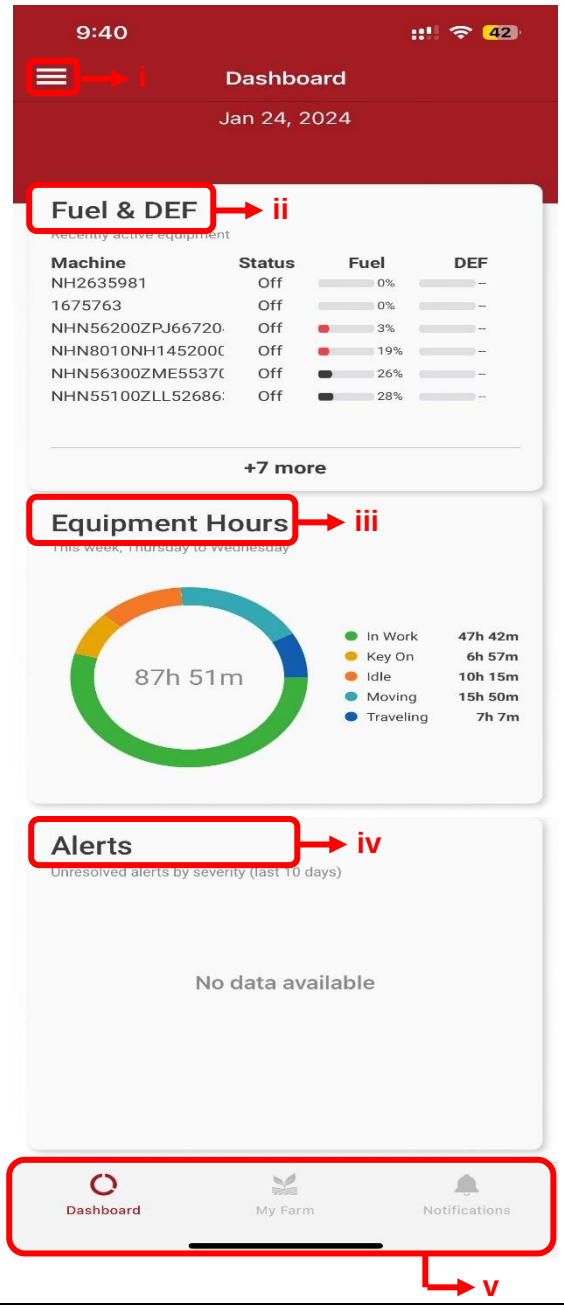
9.Mobile app-Steps to login

Step 1 – Launch the application	Step 2 – Once clicking **'Log in'** LOGIN button, Enter your login credentials.
	

10.Mobile app-Home screen

After successful Login, You will be redirected to home screen of the application which includes the following widgets-

I. Menu (Ref 11.1)
II. Machine status, Fuel & DEF level (Ref 11.2)
III. Equipment hours (Ref 11.3)
IV. Alerts (Ref 11.4)
V. Toolbar (Ref 11.5)

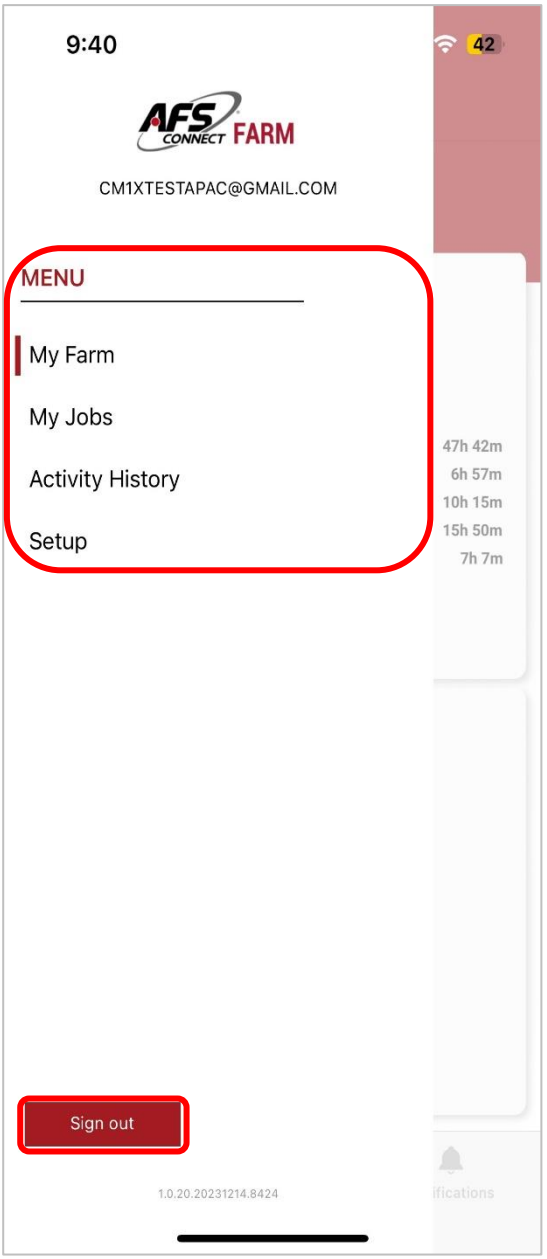


10.1 Mobile app-Menu

Click on the Menu icon or swipe right on the leftside of the page to navigate to the menu

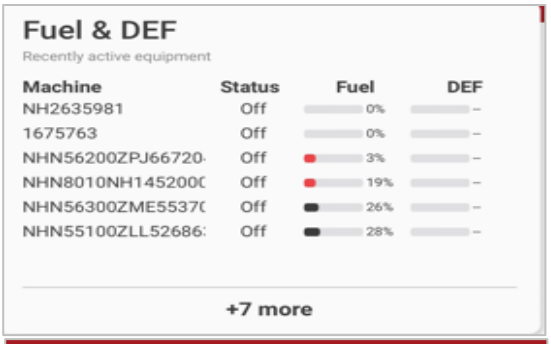
On the top you will be able to see 'Username'. This widget consists of the following options-

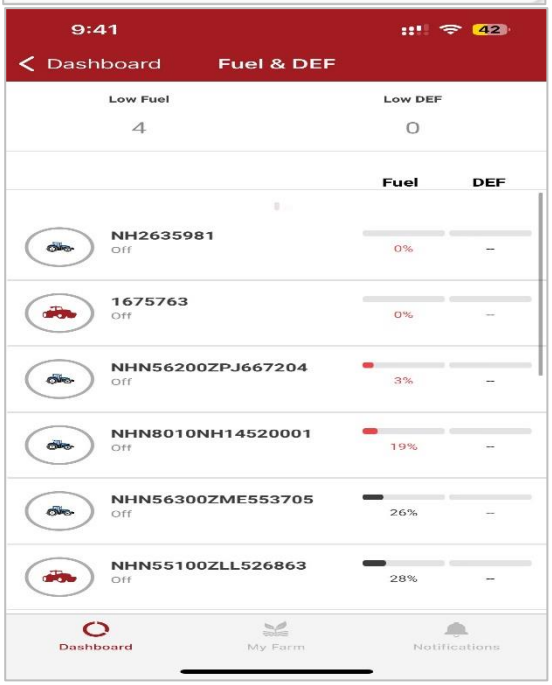
- My Farm (ref. 10.1.1)
- My Jobs (ref. 10.1.2)
- Activity History (ref. 10.1.3)
- Setup (ref. 10.1.4)
- Sign out (ref. 10.6)



10.1.1 Mobile app-My Farm

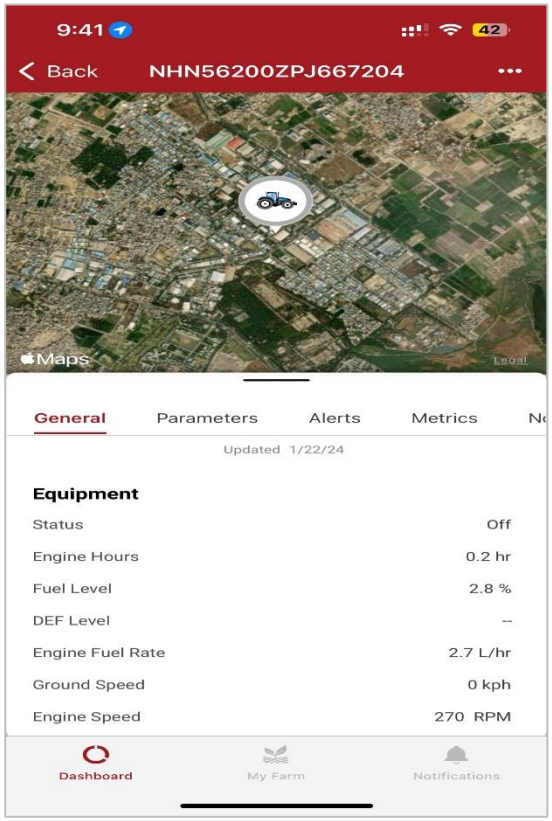
This option provides detail about equipment's predefined parameters i.e. ON/OFF status, levels of Fuel and DEF.
On clicking this option, You will be redirected to exploded view of the data.
On the top you can view if any equipment lies in the category of low fuel or DEF





Further, On clicking a particular equipment you will be redirected its details such as-

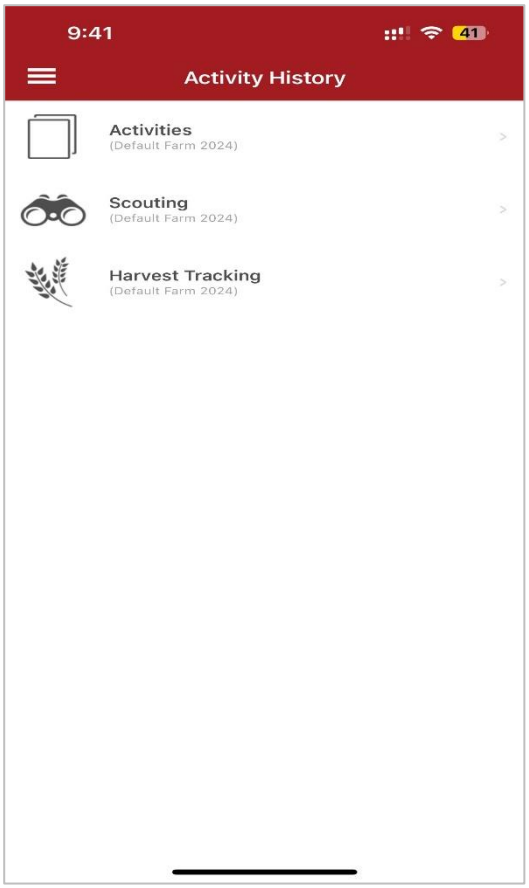
- Location (current location on map)
- General information (Equipment related readings and telematics device's information)
- Parameters (Info. Related to driveline, engine fuel/DEF, hitch/PTO)
- Alerts (Active & Inactive alerts)
- Metrics (Average figures according to machine's idle, running status)
- Notifications



10.1.2 Mobile app-My Jobs

Under my jobs widget you can view list of created activities, associated farm-grower and track their progress. To create an activity, you need to log in to web portal of 'CaseIH AFSconnect'.	

10.1.3 Mobile app-Activity history

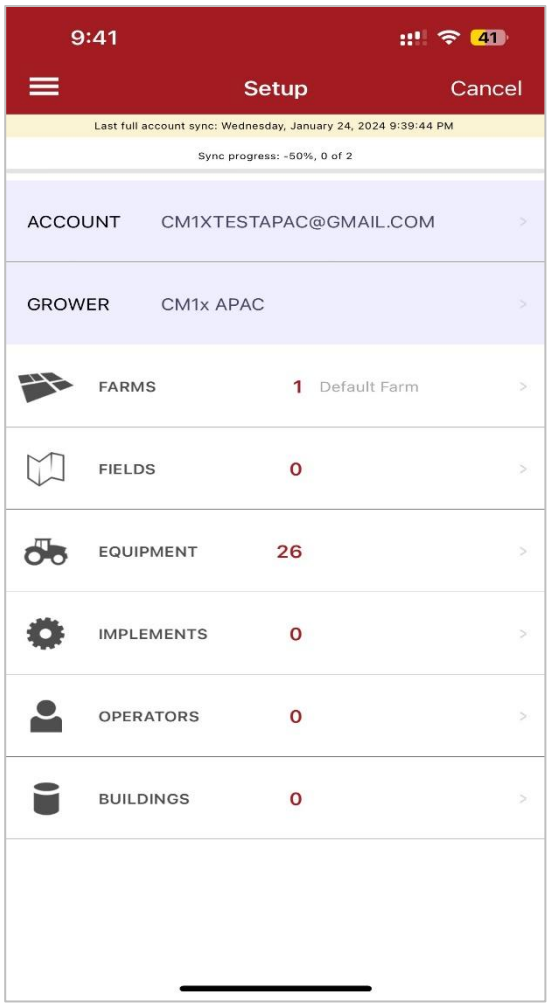
Activity history option provides you details/history of activities. Moreover, you can track on the basis of type i.e., whether it is a scouting activity or harvest tracking one	

10.1.4 Mobile app-Setup

Setup feature allows you to view account holder's name & below mentioned details according to one or multiple growers such as-

- Farms
- Fields
- Equipment
- Implements
- Operators
- Buildings

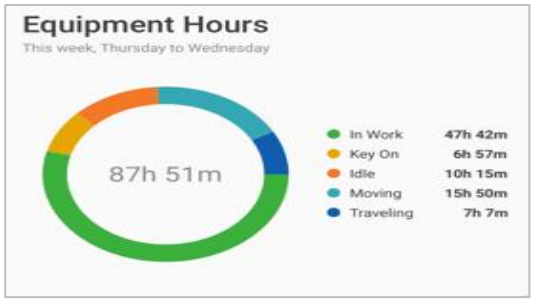
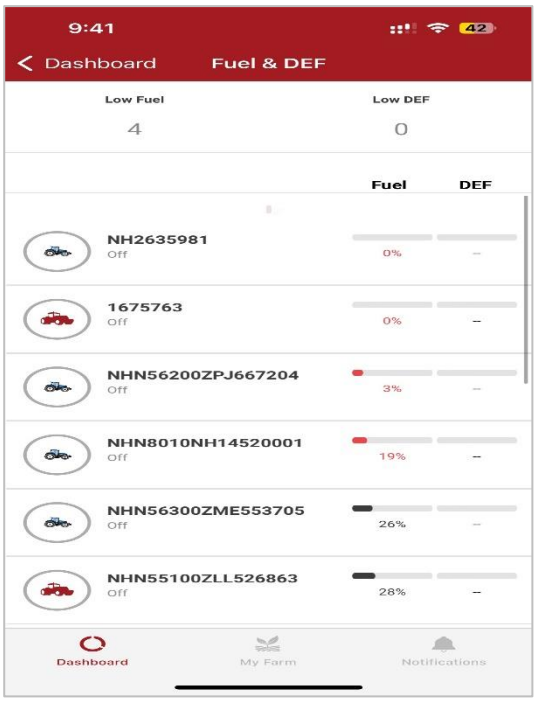
You can only perform basic editing (type of field activity and area) via mobile application, Creation of these options lies only on the web-portal.



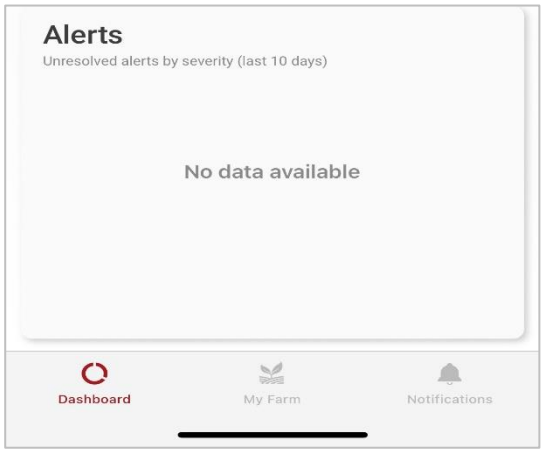
10.2 Mobile app-Fuel/DEF

Already discussed in section 10.1.1

10.3 Mobile app-Equipment hours

You can view a week's summary of one or more equipment's under this widget with complete bifurcation of the working hours i.e. In work, Key on, Idle, Moving & Travelling. A multiple equipment owner can view individual data on further clicking the widget.	 

10.4 Mobile app-Alerts

You can view notifications of alerts(if any) triggered by the equipment under this widget Alerts are classified into three categories- • High severity • Medium severity • Low severity On clicking the widget, You can view the nature of alert and location where it was triggered	

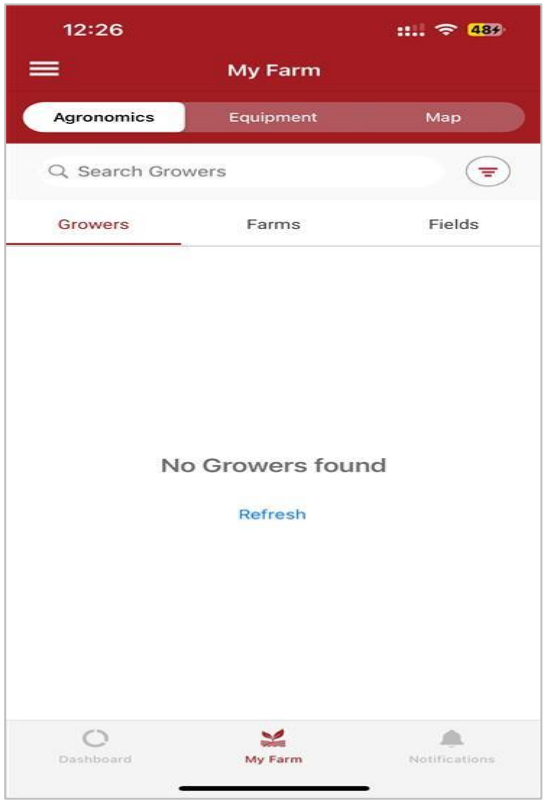
10.5 Mobile app-Toolbar

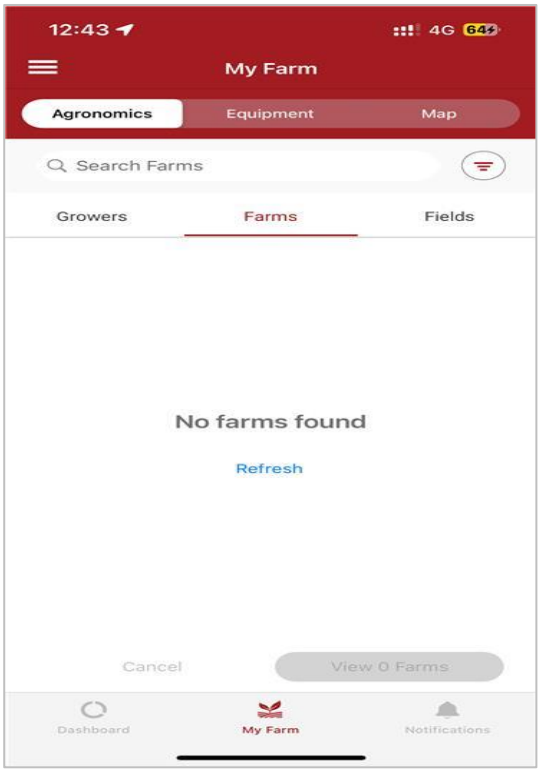
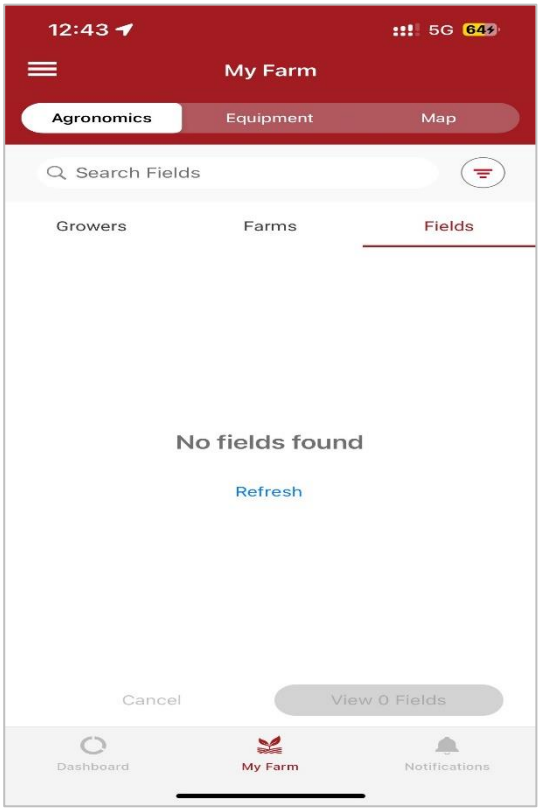
In the bottom of application window, You can find this bar. Which has three options/windows • Dashboard (already discussed in section 10.2-10.4) • My Farm (discussed in section 10.1.1) • Notifications	

10.5.1 Mobile app-My farm

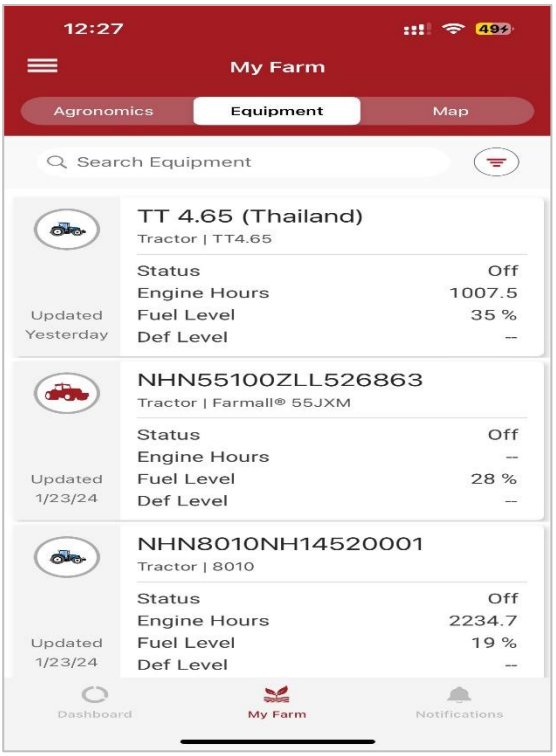
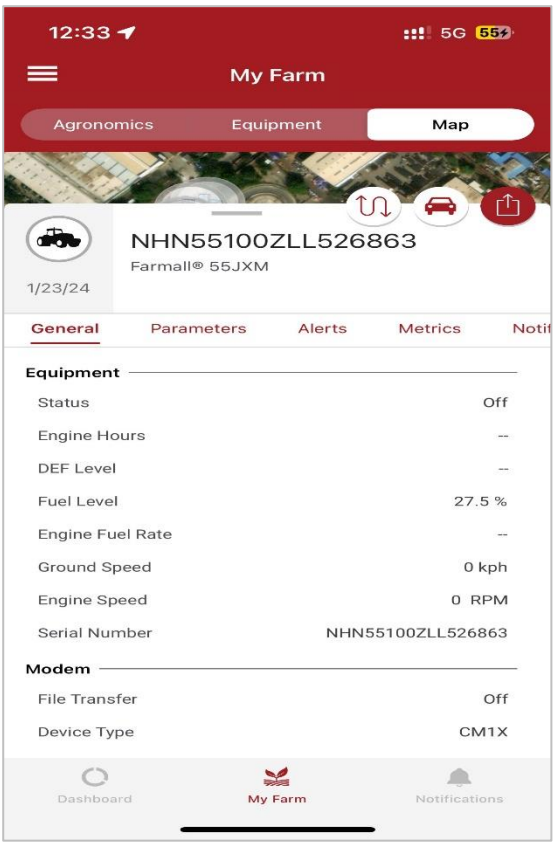
My farm option contains three widgets having set of information related to activities of Farm, list, details of Equipment and current location on map - • Agronomics (ref. section 10.5.1.1) • Equipment (ref. section 10.5.1.2) • Map (ref. section 10.5.1.3)	

10.5.1.1 Mobile app-Agronomics

Under this widget you can view & track activity generated(if any) for a particular farm according to grower and field as well. Here you can select any of the grower and view field activities associated with it.	

On clicking **'Grower'** option, You can view list of growers along with field associated with him and its area. On further clicking you can view any activity (if done) for the selected field under his association.	
To view activities related to field, You can do so by selecting **'Fields'** option. Here all the growers field data will be shown along with its area. On further clicking you can view progress/status of activity done on the selected field.	

10.5.1.2 Mobile app-Equipment

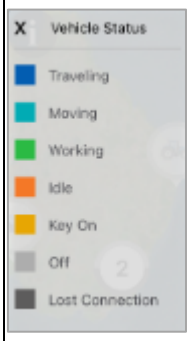
Equipment option gives you access to all of equipment's associated with your account with basic details of the machine such as serial no, ON/OFF status, Engine hours, Fuel level and DEF Level.	
On clicking further, A particular equipment you can view machine related data such as • General data • Parameters • Alerts • Metrics • Notification You will be able to locate current location of the machine on map under this option with few customizations of the map view type and getting navigated towards the machine by clicking on buttons present on map	

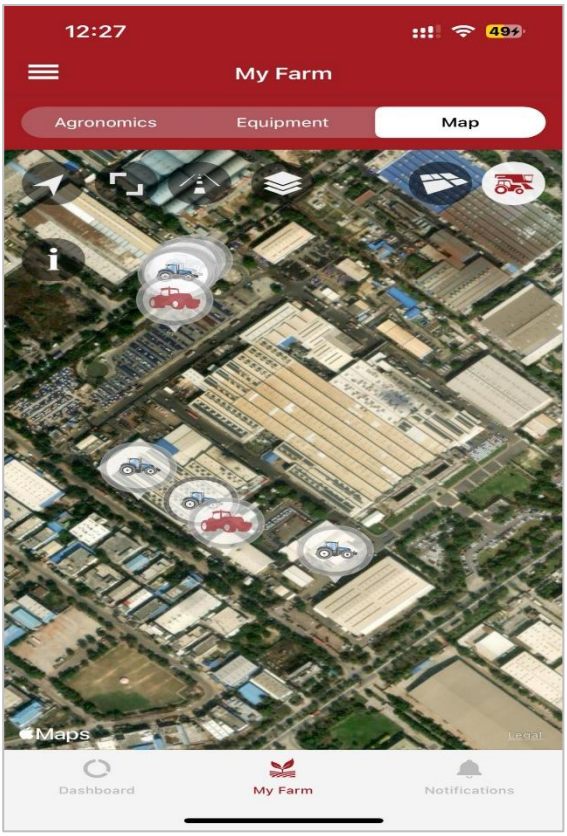
10.5.1.3 Mobile app-Maps

You can track location of one or multiple equipments under this option on world map allowing user viewing experience of multiple equipments in one go.

To change map's layout to street view, Click on **'Street view'** button

To view vehicle status, Click on **'Vehicle status'** button and you will be able to see below detailed summary

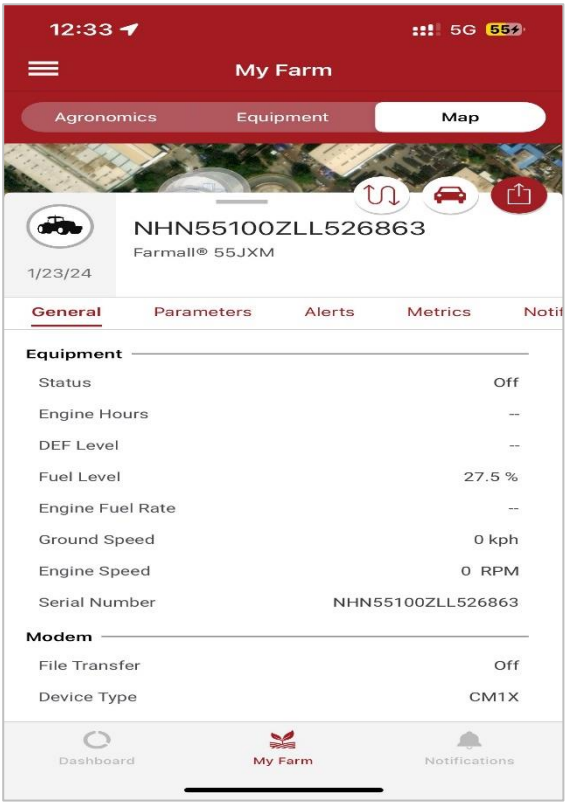




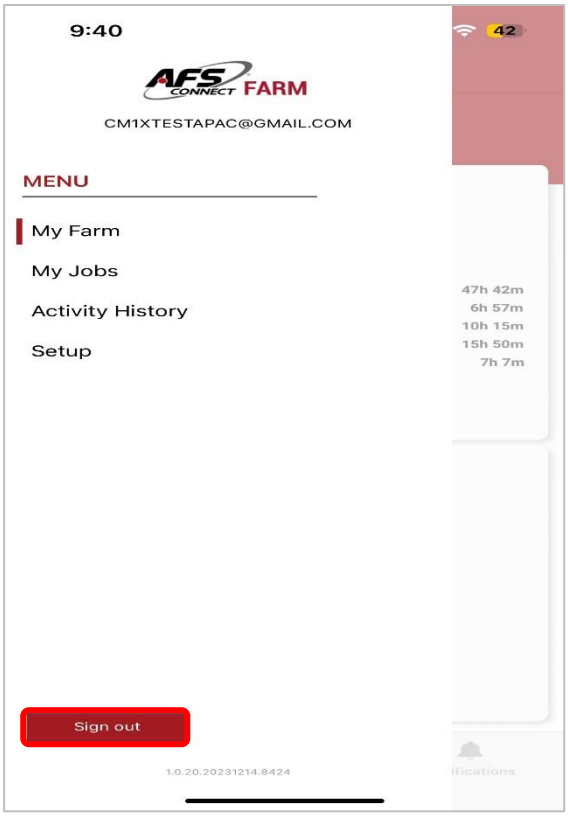
On clicking a particular machine you will be redirected to its details page (already discussed in above section)
You can also navigate to the machine by clicking **'Directions'** button. Once clicked you will be directed towards machine through google maps

To share the machine's details to other device click on **'Share'** button

To retrieve/view 24HR. vehicle movement history click on **'View history'** button



10.6 Mobile app-Sign out

To get signed out of the application, Open the menu bar by either swiping left to the screen or by clicking ‘ ’ logo.
Once it gets open, you can find **‘Sign out’** Sign in button over there.

Click on it to exit the account and you will be redirected to welcome screen of the application.