Last modified by

**Pramod Khombare** 

Module Name

F-Intel

Current document version

V1.0

## **Contents**

1.	Docume	nt History	4
2.	Overviev	N	5
	2.1 Ser	vice objectives or Business requirements and the business values added by the service	5
3.	Pre-requ	uisite Services	5
4.	Add forn	n	5
	4.1		5
	4.2		5
	4.4.1.	Add form field descriptions	5
5.	Customi	zations Summary Table	5
6.	Customi	zation Details/ Use Case	5
7.	View Scr	reen	6
	7.1. Vie	w Screen – Added Details Progression	38
	7.1.1. V	/iew Screen – Added Details Progression – Add Details	40
	7.1.1.1.	View Screen – Add – Farm Details	45
	7.1.1.2.	View Screen – Add – Field Details	46
	7.1.1.3.	View Screen – Add – Crop Details	47
	7.1.1.3.1.	View Screen – Add – Crop Details – Plantation Crop Type Error! Bookmark not define	ed.
	7.1.1.3.2.	View Screen – Add – Crop Details – Seasonal Crop Type Error! Bookmark not define	ed.
	7.1.1.4.	View Screen – Add – Plant Population Details Error! Bookmark not define	ed.
	7.1.1.4.1. <b>defined.</b>	View Screen – Add – Plant Population Details – Plantation Crop Type Error! Bookmark n	ıot
	7.1.1.4.2.	View Screen – Add – Plant Population Details – Seasonal Crop Type . <b>Error! Bookmark not define</b>	ed.
	7.1.1.5.	View Screen – Add – Season Details	50
	7.1.1.6.	View Screen – Add – Irrigation Details	.51
	7.1.1.7.	View Screen – Add – Historical Yield Details	52
	7.1.1.7.1.	View Screen – Add – Historical Yield Details – Plantation Crop Type	52
	7.1.1.7.2.	View Screen – Add – Historical Yield Details – Seasonal Crop Type Error! Bookmark not define	
	7.1.1.8.	View Screen – Add – Historical Pest & Disease Details	·57
	7.1.1.9.	View Screen – Add – Harvest Details	64
	7.2. Vie	w Screen – Add Farm Details – From Dashboard	6
	7.2.1. V	/iew Screen – Add Farm Details – Farm Selection Menu	6
	7.2.1.1.	View Screen – Add Farm Details	6
	7.2.1.2.	View Screen – Auto filled Farm Location Details	8
	7.2.1.3.	View Screen – Add Field Details – Farm Dropdown Menu	9

11.

12.

13.

14.

15.

## 1. <u>Document History</u>

	VERSION HISTORY						
DATE	CLIENT NAME	VERSION	DESCRIPTION OF CHANGE	AUTHOR	REQUIREMENT ID	CCB ID	STATUS
13/11/2024	F-Intel	V 1.0	New Document	Pramod K			Pending

## 2. Overview -

## 2.1 Service objectives or Business requirements and the business values added by the service

This core service is designed to streamline the setup process for agribusiness users, enabling them to input essential information. By capturing these details, the system establishes a foundation for accurate, location-based insights and services, including crop growth stage monitoring, resource management, yield estimation, and personalized suggestions. This empowers users to make informed, data-driven decisions, enhancing farm productivity and operational efficiency.

## 3. Pre-requisite Services

#	MODULE NAME	SERVICE NAME	SERVICE CODE
1			

## 4. Add form

4.1

#### **Notes**

Not applicable

#### Feature:

4.2

#### **Notes**

Not applicable

## Field Descriptions

## 4.4.1. Add form field descriptions

#	FIELD NAME	FIELD DESCRIPTION	ACCEPTANCE DATA/CRITERIA	- ERROR MESSAGE	Sample Example	PREREQUISITE	Mandatory Y/N
			-	-			

## 5. <u>Customizations Summary Table</u>

DATE	CLIENT NAME	REQUIREMENT ID	CCB ID	IMPACTED AREA	Change Category	REQUIREMENT STATUS

## 6. Customization Details/ Use Case

Requirement ID	DevOps ID
Requirement:	

## 7. View Screen

## 7.1. <u>View Screen – Add Farm Details – From Dashboard</u>

## 7.1.1. <u>View Screen – Add Farm Details – Farm Selection Menu</u>



#### **Notes**

- The default message "Search farm location" must appear inside the dropdown box.
- The field should have search functionality, allowing the user to type the farm location and select it from the list of available locations.
- If the Farm Location is not in the list, then user can click on '+ Add Farm' button. which is available inside the header's field selection dropdown menu, to add the required farm location.
- After clicking on "+ Add Farm' button, the Add Farm Details screen appears as shown in image section 7.2.1.1 below.

## 7.1.1.1. <u>View Screen – Add Farm Details</u>



• The user must enter the location of his farm here to proceed further.

Step 1/3

- Label: Step 1/8
  - The word "Step" is fixed
  - The numerator, or top number, in the label is a dynamic. As the status of user stories changes, the number should continue to vary or rise. After the details are added, the user story status is updated.
  - The denominator, or bottom number, in the label is a static.
- Label: Farm Location
  - The default message "Search" must appear inside the box.
  - The farm location field will function like a Google Maps search and display a list of several place names, from which the user can choose the one where his fields are located
  - The selected farm location name should be shown in the box.
- The north direction Icon shows the North Direction of the farm. After clicking on it the map should reset to North Direction.

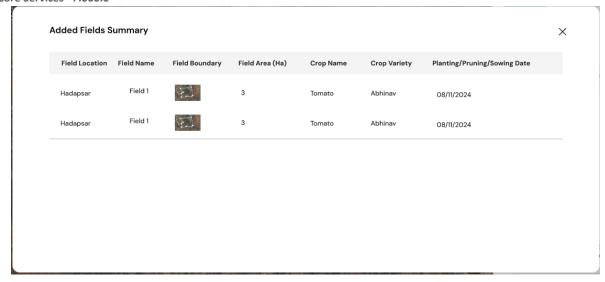
  After mouse hover tooltip should show Reset Bearing to North as illustrated below



• Zoom controls (Zoom in (+) or Zoom out (-)) or mouse scrolling help the user to get closer or wider view of the map. After mouse hover tooltip should show Zoom In or Zoom Out as illustrated below



- The user can go back to the previous page by using the "Go Back" button.
- Preview screen button should be shown. The preview screen details are explained in in-app onboarding functional document.



- The preview screen popup named "Added Fields Summary" displays the summary of previously added farm, field, and crop details appears when user click on the preview screen
- Field Location, Field Name, Field Boundary, Field Area (Ha), Crop Name, Crop Variety, and Planting/Pruning/Sowing Date are the five columns that will be present
- Field Location should display the field location serially, Field Name should display the field name, Field Boundary should display the non-clickable/non-openable field boundary, Field Area in Ha should display the field area, Crop Name should display the crop name, Crop Variety should display the crop variety, and Planting/Pruning/Sowing Date should display in the corresponding column
- The "Cut" option allows the user to close the pop up and return to the previous page

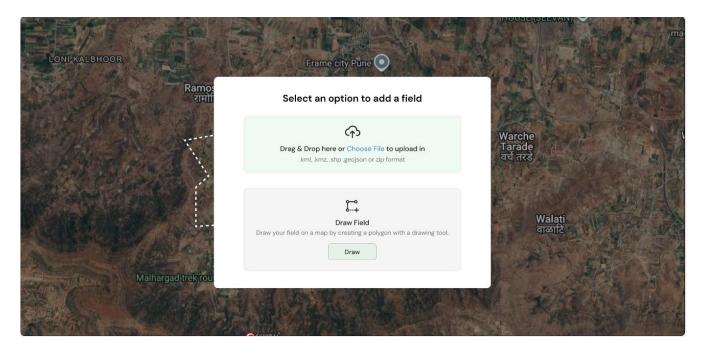


## 7.1.1.2. View Screen – Auto filled Farm Location Details



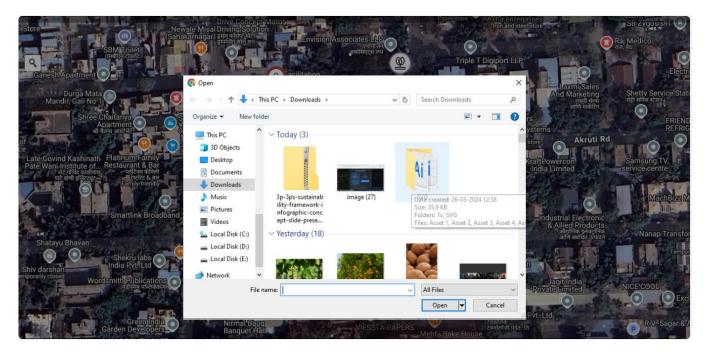
- The boundaries of the user-selected location appear on the map, just like it does on Google Maps
- Label: Farm Location
  - The selected farm location name should be shown in the box.
- Label: State/Province
  - o The state or provincial name must to be automatically inserted in the field based on the selected farm location.
- Label: Country
  - o The country name must to be automatically inserted in the field based on the selected farm location.
- Preview screen button should be shown. The preview screen details are explained in section 7.1.1.1.
- The user can go back to the previous page by using the "Go Back" button.
- The popup titled "Select an option to add a field" appears after the user clicks on Add Field, as illustrated in 7.1.1.3.

## 7.1.1.3. <u>View Screen – Add Field Details – Farm Dropdown Menu</u>



- The user will have two options to add a field
  - One to upload or drag and drop files. The user can upload files in the following formats:.kml,.kmz,.shp,.geojson, or zip files. The limit of the files size is 10 MB. If the size is exceeding show the validation message.
  - o Alternatively, by choosing the Draw Field option, the user can draw a field border

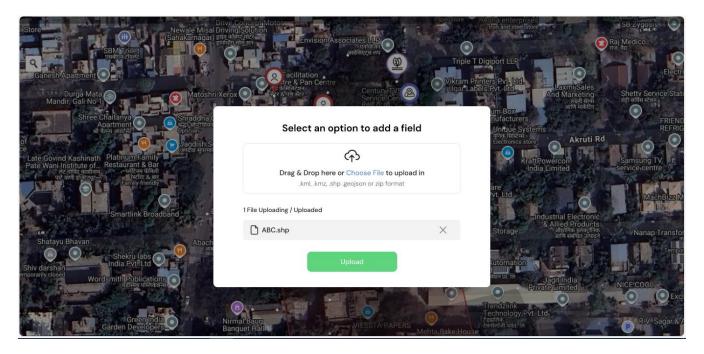
## 7.1.1.4. View Screen – Drag & Drop or Chose File



#### **Notes**

• Here the user can choose to upload files in the following formats:.kml,.kmz,.shp,.geojson, or zip files.

## 7.1.1.5. <u>View Screen – Drag & Drop or Chose File - Uploaded File</u>



## **Notes**

• Here the names of chosen fields are shown.

## 7.1.1.6. View Screen – Drag & Drop or Chose File - Uploaded File(s)



## **Notes**

- Here the uploaded fields boundaries are shown on the map
- Preview screen button should be shown. The preview screen details are explained in section 7.1.1.1.

Step 1/3

- Label: Step 2/8
  - o The word "Step" is fixed
  - The numerator, or top number, in the label is a dynamic. As the status of user stories changes, the number should continue to vary or rise. After the details are added, the user story status is updated.
  - o The denominator, or bottom number, in the label is a static.

## 7.1.1.7. <u>View Screen – Drag & Drop or Chose File - Click on Add Field Details</u>



- To add information unique to a field, the user must hover over it
- "Add Field Details" should appear in the tooltip when the mouse is hovered over it
- As shown in 7.1.1.8. the field-specific fields will appear after the user clicks "Add Field Details"
- Preview screen button should be shown. The preview screen details are explained in section 7.1.1.1.

## 7.1.1.8. View Screen – Drag & Drop or Chose File - Add Field Details



- The fields for field location, state/province, and country name should be automatically filled in for the chosen field.
- Label: Field Name
  - o The default message "Enter field name" must appear inside the box.
  - O The user will enter the field's name in the text box here.
- Label: Field Type
  - o The field type "Open Field" is hardcoded for every field.
- Label: Field Area
  - The default message "0" must appear inside the box.
  - The field area is automatically calculated specific to the selected field and has Ha as its default unit, however the user has the choice to view the field area in Acre, the Field Area should display in acres if the user selected the Unit as Acre
- Label: Area Unit
  - The following are the field area measuring units shown in the dropdown.
    - Ha
    - Acre

- o The following are the unit's conversions and their respective formulas
  - Hectares to Acres conversion formula

$$1 \text{ Hectare} = \frac{Acre}{0.404686}$$

Acres to Hectares conversion formula

$$1 \text{ Acre} = \frac{Hectare}{2.47105}$$

- The Add Crop Details page will appear to add the field-specific crop details once the user clicks on Add Crop.
- The Go back button allows the user to return to the previous screen/page.
- Preview screen button should be shown. The preview screen details are explained in section 7.1.1.1.

## 7.1.1.9. <u>View Screen – Drag & Drop or Chose File - Add Crop Details</u>



#### **Notes**

• The user must enter field-specific crop details here.

Step 1/3

- Label: Step 3/8
  - The word "Step" is fixed
  - The numerator, or top number, in the label is a dynamic. As the status of user stories changes, the number should continue to vary or rise. After the details are added, the user story status is updated.
  - The denominator, or bottom number, in the label is a static.
- Label: Crop Name
  - o The default message "Select crop name" must appear inside the box.

- The backend team must upload the Crop Names master data. This version does not have the option to add a new crop.
- o The user must select the crop from the dropdown list in the Crop Name area.

#### Label: Crop Variety

- The default message "Enter crop variety" must appear inside the box.
- The user must enter the Crop Variety; thus, a text box must be given.

#### • Label: Crop Duration

- The default message "Select crop duration" must appear inside the box.
- The backend team must upload the Crop specific duration master data and the user must select the crop duration from the dropdown menu, which is in days
- Label: Sowing Date or Planting/Pruning Date
  - The label is dynamic and it will vary depending on the crop selected or added.
    - Plantation crops are labelled Planting/Pruning Date.
    - Seasonal crops are labelled Sowing Date.
  - The default message "DD/MM/YY" must appear inside the dropdown box.
  - O Sowing Date or Planting/Pruning Date is a date picker in DD/MM/YYYY format.
  - The shared calendar below should open up when the user clicks on the calendar icon.



- O Here, the user can choose the historical dates on which the user has Sown or planted/pruned the crop.
- The user cannot select future dates since they are disabled.
- The user can select the date several times before submitting and the chosen dates can be cleared by the user by clicking on clear button.
- Label: Planned Harvest Date
  - o The default message "DD/MM/YY" must appear inside the dropdown box.
  - Planned Harvest Date is a date picker in DD/MM/YYYY format.
  - o The shared calendar below should open up when the user clicks on the calendar icon.



- Here, the user can choose the future dates on which the user will harvest the crop.
- The user cannot select future dates since they are disabled.
- The user can select the date several times before submitting and the chosen dates can be cleared by the user by clicking on clear button.
- Label: Targeted Crop Yield
  - The Crop Yield measuring unit must be selected while adding the actual crop yield data.
  - The default message "0" must appear inside the dropdown box.
  - To add data according to the chosen unit, first the user must choose the measuring unit from the dropdown menu.
- Label: Yield Unit
  - The following measuring unit names must be shown in the menu.
    - Metric Tonnes (MT)
    - Quintal (Qt)
    - Kilogram (Kg)
  - The following are the unit's conversions and their respective formulas
    - Metric Tonne (MT) to Quintal (Qt) conversion formula

1 Metric Tonne (MT) = 
$$\frac{Quintal (Qt)}{10}$$

• Metric Tonne (MT) to Kilogram (Kg) conversion formula

1 Metric Tonne (MT) = 
$$\frac{Kilogram (Kg)}{1000}$$

• Quintal (Qt) to Metric Tonne (MT) conversion formula

1 Quintal (Qt) = 
$$Metric\ Tonne\ (MT)\ X\ 10$$

Quintals (Qt) to Kilogram (Kg) conversion formula

1 Quintal (Qt) = 
$$\frac{Kilogram (Kg)}{100}$$

Kilogram (Kg) to Metric Tonnes (MT) conversion formula

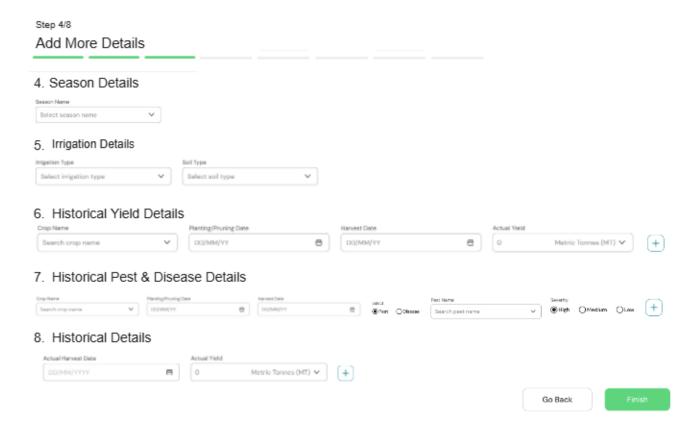
1 Kilogam (Kg) = 
$$Metric\ Tonne\ (MT)\ X\ 1000$$

• Kilogram (Kg) to Quintals (Qt) conversion formula

$$Kilogam (Kg) = Quintal (Qt) X 100$$

- The user can add the data several times before submitting.
- The Go back button allows the user to return to the previous screen/page, such as the Add Field Details page
- After clicking on "Add More" button the Add More Details page/popup must appear.
- Preview screen button should be shown. The preview screen details are explained in section 7.1.1.1.

## 7.1.1.10. View Screen – Drag & Drop or Chose File - Add More Details



- The user can go back to the previous page by using the "Go Back" button.
- The title of the page name should be Add More Details
- As seen in the shard image above, each user story has a serial number. The number starts from 4 and ends with 8.
- Here, the user must enter/select field-specific details here.

#### Step 1/3

- Label: Step 4/8
  - The word "Step" is fixed
  - The numerator, or top number, in the label is a dynamic. As the status of user stories changes, the number should continue to vary or rise. After the details are added, the user story status is updated.
  - The denominator, or bottom number, in the label is a static.

#### 4. Season Details



#### Notes

- Under the Season Details user story, the following fields must appear.
- The user has to fill the following fields:
  - o Label: Season Name
    - The default message "Select season name" must appear inside the dropdown box.
    - To display the season names inside the dropdown, the Dev Team needs to upload the season name master data.
    - The user has to select the season name from the list that appears here.



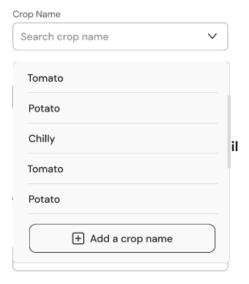
- Under the Irrigation Details user story, the following fields must appear.
- The user has to fill the following fields:
  - Label: Irrigation Type
    - The default message "Select irrigation type" must appear inside the dropdown box.
    - To display the types irrigation inside the dropdown, the Dev Team needs to upload the irrigation type
    - The user has to select the irrigation type from the list that appears here.
  - Label: Soil Type
    - The default message "Select soil type" must appear inside the dropdown box.
    - To display the soil types inside the dropdown, the Dev Team needs to upload the soil type master data.
    - The user has to select the soil type from the list that appears here.

#### Historical Yield Details

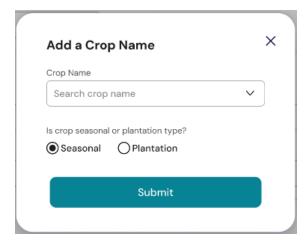


#### **Notes**

- Under the Historical Yield Details user story, the following fields must appear.
- The user has to fill the following fields:
  - o Label: Crop Name
    - The default message "Search crop name" must appear inside the dropdown box.
    - To display the crop names inside the dropdown, the Dev Team needs to upload the crop name master data.
    - The field should have search functionality, allowing the user to type the crop's name and select it from the list of available crops.
    - If the crop name is not in the list, then user can click on '+ Add a Crop Name' to add the crop name.



After clicking on '+ Add a Crop Name' pop up with title name "Add a Crop Name" appears on screen as shown below.



The Add a Crop Name pop up should have the following fields.

- Label: Crop Name
  - The default message "Search crop name" must appear inside the dropdown box.
  - To display the crop names inside the dropdown, the Dev Team needs to upload the crop name master data.
  - O User can select a crop name from the dropdown box.
- Label: Is crop seasonal or plantation type?
  - The answer to the question is either Seasonal or Plantation.
  - None of the options (Seasonal or Plantation) should be selected before the user selects.
     The user alone will decide whether to say Seasonal or Plantation.
- Button: Submit
  - The "Submit" button enables the user to submit the filled details.
  - Since there is no editing option, the user cannot edit the information once the details have been submitted.
- The user can go back to the previous page by using the "Cut" icon.
- o Label: Planting/Pruning Date or Sowing Date
  - The Planting/Pruning Date label appears if the added/selected crop is plantation crop type.
  - The Sowing Date label appears if the added/selected crop is seasonal crop type.
  - The default message "DD/MM/YY" must appear inside the dropdown box.
  - Planting/Pruning Date or Sowing Date is a date picker in DD/MM/YYYY format
  - The shared calendar below should open up when the user clicks on the calendar icon.



- Here, the user can choose the historical dates on which the user has planted or pruned the crop.
- The user cannot select future dates since they are disabled.
- The user can select the date several times before submitting and the chosen dates can be cleared by the user by clicking on clear button.
- Label: Harvest Date
  - The default message "DD/MM/YY" must appear inside the dropdown box.
  - Harvest Date is a date picker in DD/MM/YYYY format

The shared calendar below should open up when the user clicks on the calendar icon.



- Here, the user can choose the historical dates on which the user has harvested the crop.
- The user cannot select future dates since they are disabled.
- The user can select the date several times before submitting and the chosen dates can be cleared by the user by clicking on clear button.
- o Label: Actual Yield
  - The default message "0" must appear inside the dropdown box.
  - To add data, users must first select the measuring unit from the dropdown menu, ensuring the yield unit is chosen when entering actual crop yield data.
  - If the yield unit is not chosen then show the validation message.
- o Label: Yield Unit
  - The following measuring unit names must be shown in the menu.
    - Metric Tonnes (MT)
    - Quintal (Qt)
    - Kilogram (Kg)
  - The following are the unit's conversions and their respective formulas
    - Metric Tonne (MT) to Quintal (Qt) conversion formula

1 Metric Tonne (MT) = 
$$\frac{Quintal (Qt)}{10}$$

• Metric Tonne (MT) to Kilogram (Kg) conversion formula

1 Metric Tonne (MT) = 
$$\frac{Kilogram (Kg)}{1000}$$

Quintal (Qt) to Metric Tonne (MT) conversion formula

1 Quintal (Qt) = 
$$Metric\ Tonne\ (MT)\ X\ 10$$

• Quintals (Qt) to Kilogram (Kg) conversion formula

1 Quintal (Qt) = 
$$\frac{Kilogram (Kg)}{100}$$

Kilogram (Kg) to Metric Tonnes (MT) conversion formula

1 Kilogam (Kg) = 
$$Metric\ Tonne\ (MT)\ X\ 1000$$

• Kilogram (Kg) to Quintals (Qt) conversion formula

$$Kilogam (Kg) = Quintal (Qt) X 100$$

- The user can add the data several times before submitting.
- Button: Plus
  - This is a clickable button.
  - Here, the user must add the details for at least one row or season. However, the user can submit the details form up to four rows or four seasons more than once.
  - When the user is filling out the details for a new row or season, all of the previously filled-out information should be shown in the appropriate fields.
  - As seen in the image below, a new row including all 4 fields must appear beneath the previous row or season after clicking the Plus button.
  - The functionality of the fields is explained in the section above.

#### 6. Historical Yield Details



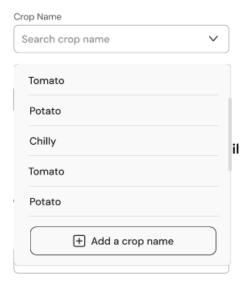
- o Button: Delete
  - This is a clickable button.
  - After clicking the Delete button, a newly added row with all 4 fields must disappear.

## 7. Historical Pest & Disease Details

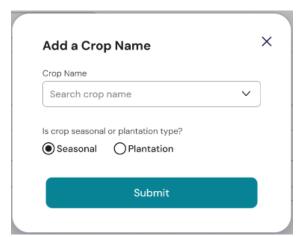


- Under the Historical Pest & Disease Details user story, the following fields must appear.
- The user has to fill/select the following fields:
  - Label: Crop Name
    - The default message "Search crop name" must appear inside the dropdown box.

- To display the crop names inside the dropdown, the Dev Team needs to upload the crop name master data.
- The field should have search functionality, allowing the user to type the crop's name and select it from the list of available crops.
- If the crop name is not in the list, then user can click on '+ Add a Crop Name' to add the crop name.



 After clicking on '+ Add a Crop Name' pop up with title name "Add a Crop Name" appears on screen as shown below.



- The Add a Crop Name pop up should have the following fields.
  - Label: Crop Name
    - o The default message "Search crop name" must appear inside the dropdown box.
    - To display the crop names inside the dropdown, the Dev Team needs to upload the crop name master data.
    - The field should have search functionality, allowing the user to type the crop's name and select it from the list of available crops.
  - Label: Is crop seasonal or plantation type?
    - The answer to the question is either Seasonal or Plantation.

- None of the options (Seasonal or Plantation) should be selected before the user selects.
   The user alone will decide whether to say Seasonal or Plantation.
- Button: Submit
  - o The "Submit" button enables the user to submit the filled details.
  - Since there is no editing option, the user cannot edit the information once the details have been submitted.
- The user can go back to the previous page by using the "Cut" icon.
- Label: Planting/Pruning Date or Sowing Date
  - The Planting/Pruning Date label appears if the added/selected crop is plantation crop type.
  - The Sowing Date label appears if the added/selected crop is seasonal crop type.
  - The default message "DD/MM/YY" must appear inside the dropdown box.
  - Planting/Pruning Date or Sowing Date is a date picker in DD/MM/YYYY format
  - The shared calendar below should open up when the user clicks on the calendar icon.



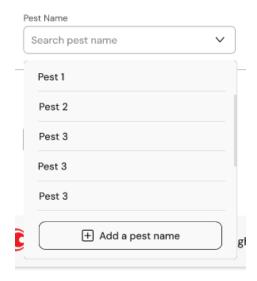
- Here, the user can choose the historical dates on which the user has planted or pruned the crop.
- The user cannot select future dates since they are disabled.
- The user can select the date several times before submitting and the chosen dates can be cleared by the user by clicking on clear button.
- Label: Harvest Date
  - The default message "DD/MM/YY" must appear inside the dropdown box.
  - Harvest Date is a date picker in DD/MM/YYYY format
  - The shared calendar below should open up when the user clicks on the calendar icon.



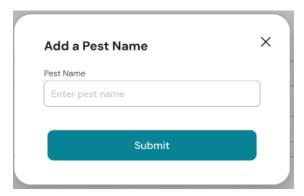
- Here, the user can choose the historical dates on which the user has harvested the crop.
- The user cannot select future dates since they are disabled.
- The user can select the date several times before submitting and the chosen dates can be cleared by the user by clicking on clear button.

#### Label: Select

- Here, the use has to choose either Pest or Disease. The choosing pest or disease indicates, user is adding the following details either Pest or Disease.
- None of the options (Pest or Disease) should be selected before the user selects. The user alone will
  decide whether to say Pest or Disease.
- Label: Pest Name or Disease Name
  - The label is dynamic and it will vary depending on the Pest or Disease is selected.
    - If Pest is selected then the label name should be Pest Name.
      - The default message "Search pest name" must appear inside the dropdown box.
      - If the pest name is not in the list, then user can click on '+ Add a Pest Name' to add the pest name.



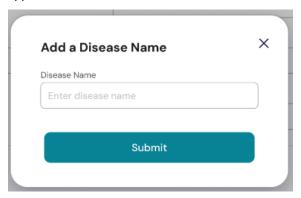
After clicking on '+ Add a Pest Name' pop up with title name "Add a Pest Name" appears
on screen as shown below.



- o The Add a Pest Name pop up should have the following fields.
  - Label: Pest Name
    - The default message "Enter pest name" must appear inside the dropdown box.
    - User can enter a pest name in the text box.
  - Button: Submit
    - The "Submit" button enables the user to submit the filled details.
    - Since there is no editing option, the user cannot edit the information once the details have been submitted.
- The user can go back to the previous page by using the "Cut" icon.
- If Disease is selected then the label name should be Disease Name.
  - The default message "Search disease name" must appear inside the dropdown box.
  - If the disease name is not in the list, then user can click on '+ Add a Disease Name' to add the disease name.



 After clicking on '+ Add a Disease Name' pop up with title name "Add a Disease Name" appears on screen as shown below.



- The Add a Disease Name pop up should have the following fields.
  - Label: Disease Name
    - The default message "Enter disease name" must appear inside the dropdown box.
    - User can enter a disease name in the text box.
  - Button: Submit
    - The "Submit" button enables the user to submit the filled details.
    - Since there is no editing option, the user cannot edit the information once the details have been submitted.
- The user can go back to the previous page by using the "Cut" icon.
- o Label: Severity
  - Here, user selects the severity of the chosen pest or disease attack as per the user's observation.
  - The answer to the question is either High or Medium or Low.
  - None of the options (High or Medium or Low) should be selected before the user selects. The user alone will decide whether to say High or Medium or Low.
- Button: Plus
  - This is a clickable button.
  - Here, the user must add the details for at least one row or season. However, the user can submit the details form up to four rows or four seasons more than once.
  - When the user is filling out the details for a new row or season, all of the previously filled-out information should be shown in the appropriate fields.
  - As seen in the image below, a new row including all 6 fields must appear beneath the previous row or season after clicking the Plus button.
  - The functionality of the fields is explained in the section above.

#### 7. Historical Pest & Disease Details



- Button: Delete
  - This is a clickable button.
  - After clicking the Delete button, a newly added row with all 6 fields must disappear.

#### Historical Details



- Under the Harvest Details user story, the following fields must appear.
- The user has to fill the following fields:
  - Label: Actual Harvest Date
    - The default message "DD/MM/YY" must appear inside the dropdown box.
    - Actual Harvest Date is a date picker in DD/MM/YYYY format
    - The shared calendar below should open up when the user clicks on the calendar icon.



- Here, the user can choose the historical dates on which the user has harvested the crop.
- The user cannot select future dates since they are disabled.
- The user can select the date several times before submitting and the chosen dates can be cleared by the user by clicking on clear button.
- After the data is submitted, the editing option should be disabled.
- Label: Actual Yield
  - The Actual Crop Yield measuring unit must be selected while adding the actual crop yield data.
  - The default message "0" must appear inside the dropdown box.

- To add data according to the chosen unit, first the user must choose the measuring unit from the dropdown menu.
- If the yield unit is not chosen then show the validation message.
- o Label: Yield Unit
  - The following measuring unit names must be shown in the menu.
    - Metric Tonnes (MT)
    - Quintal (Qt)
    - Kilogram (Kg)
  - The following are the unit's conversions and their respective formulas
    - Metric Tonne (MT) to Quintal (Qt) conversion formula

1 Metric Tonne (MT) = 
$$\frac{Quintal (Qt)}{10}$$

• Metric Tonne (MT) to Kilogram (Kg) conversion formula

1 Metric Tonne (MT) = 
$$\frac{Kilogram (Kg)}{1000}$$

• Quintal (Qt) to Metric Tonne (MT) conversion formula

1 Quintal (Qt) = 
$$Metric\ Tonne\ (MT)\ X\ 10$$

• Quintals (Qt) to Kilogram (Kg) conversion formula

1 Quintal (Qt) = 
$$\frac{Kilogram (Kg)}{100}$$

• Kilogram (Kg) to Metric Tonnes (MT) conversion formula

1 Kilogam (Kg) = 
$$Metric\ Tonne\ (MT)\ X\ 1000$$

• Kilogram (Kg) to Quintals (Qt) conversion formula

$$Kilogam (Kg) = Quintal (Qt) X 100$$

- The user can add the data several times before submitting.
- o Button: Plus
  - This is a clickable button.
  - Here, the user must add the harvest details. However, the user can submit the multiple harvest details using the Plus button.
  - When the user is filling out the another harvest details, all of the previously filled-out information should be shown in the appropriate fields.

- As seen in the image below, a newly added row including all 2 fields must appear beneath the previous added details after clicking the Plus button.
- The functionality of the fields is explained in the section above.

## 8. Historical Details



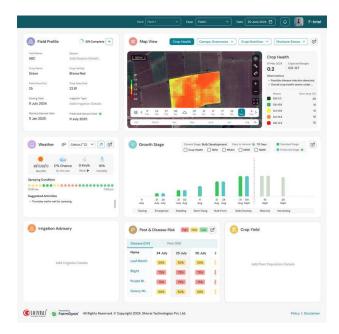
- Button: Delete
  - This is a clickable button.
  - After clicking the Delete button, a newly added row with all 2 fields must disappear.



## **Notes**

- The Go back button allows the user to return to the previous screen/page.
- After clicking on "Finish" button the dashboard screen must appear.
- Preview screen button should be shown. The preview screen details are explained in section 7.1.1.1.

## 7.1.1.11. View Screen - Go to Dashboard



#### **Notes**

The dashboard home page will appear after clicking on "Finish," and it should provide the user with field and crop-specific intelligence data

## 7.1.1.12. <u>View Screen – Draw Field</u>



## **Notes**

- After selecting Draw Field Option when asked to choose between Upload or Draw field; the user is shown with the draw field screen with the following controls
  - o North Direction



Zoom In (+)



Zoom Out (-)



Draw Polygon



Redo



Undo



- User can outline their field boundaries by drawing polygons. To geotag the farm, users should select the Draw Polygon control then click on each corner of the field, creating points in either a clockwise or counterclockwise direction. To complete the loop, users must click on the first point added, finalizing the polygon shape
- The user must utilize the undo control to remove the added geolocation point or coordinate, which erases the point or coordinate
- In order to add the deleted geolocation, point or coordinate, the user needs to use the redo control.
- When adding the first field and doing app onboarding for the first time, the preview screen button shouldn't be shown.

## 7.1.1.13. View Screen – Draw Field - Add Field Details



## **Notes**

- To add information unique to a drawn field, the user must hover over it
- "Add Field Details" should appear in the tooltip when the mouse is hovered over it
- As shown in 7.1.1.13. the field-specific fields will appear after the user clicks "Add Field Details"
- When adding the first field and doing app onboarding for the first time, the preview screen button shouldn't be shown

## 7.1.1.14. View Screen – Draw Field - Add Field Details



- The fields for farm location, state/province, and country name should be automatically filled in for the drawn field.
- Label: Farm Location
  - The selected farm location name should be shown in the box.
- Label: State/Province
  - o The state or provincial name must to be automatically inserted in the field based on the selected farm location.
- Label: Country
  - o The country name must to be automatically inserted in the field based on the selected farm location.
- Label: Field Name
  - The default message "Enter field name" must appear inside the box.
  - o The user will enter the field's name in the text box here.
- Label: Field Type
  - The field type "Open Field" is hardcoded for every field.
- Label: Field Area
  - The default message "0" must appear inside the numeric box.
  - The field area is automatically calculated specific to the selected field and has Ha as its default unit, however the user has the choice to view the field area in Acre, the Field Area should display in acres if the user selected the Unit as Acre
- Label: Area Unit
  - o The following are the field area measuring units shown in the dropdown.
    - Ha
    - Acre
  - The following are the unit's conversions and their respective formulas
    - Hectares to Acres conversion formula

$$1 \text{ Hectare} = \frac{Acre}{0.404686}$$

• Acres to Hectares conversion formula

$$1 \text{ Acre} = \frac{Hectare}{2.47105}$$

- Preview screen button should be shown. The preview screen details are explained in in-app onboarding functional document.
- The Add Crop Details page will appear to add the field-specific crop details once the user clicks on Add Crop
- The Go back button allows the user to return to the previous screen.

## 7.1.1.15. View Screen – Draw Field - Add Crop Details



- The user must enter field-specific crop details here.
- Label: Crop Name
  - o The default message "Select crop name" must appear inside the box.
  - The backend team must upload the Crop Names master data. This version does not have the option to add a new crop.
  - The user must select the crop from the dropdown list in the Crop Name area.
- Label: Crop Variety
  - The default message "Enter crop variety" must appear inside the box.
  - The user must enter the Crop Variety; thus, a text box must be given.
- Label: Crop Duration
  - The default message "Select crop duration" must appear inside the box.

- The backend team must upload the Crop specific duration master data and the user must select the crop duration from the dropdown menu, which is in days
- Label: Sowing Date or Planting/Pruning Date
  - o The label is dynamic and it will vary depending on the crop selected or added.
    - Plantation crops are labelled Planting/Pruning Date.
    - Seasonal crops are labelled Sowing Date.
  - The default message "DD/MM/YY" must appear inside the dropdown box.
  - o Sowing Date or Planting/Pruning Date is a date picker in DD/MM/YYYY format.
  - o The shared calendar below should open up when the user clicks on the calendar icon.



- Here, the user can choose the historical dates on which the user has Sown or planted/pruned the crop.
- The user cannot select future dates since they are disabled.
- The user can select the date several times before submitting and the chosen dates can be cleared by the user by clicking on clear button.
- Label: Planned Harvest Date
  - The default message "DD/MM/YY" must appear inside the dropdown box.
  - Planned Harvest Date is a date picker in DD/MM/YYYY format.
  - The shared calendar below should open up when the user clicks on the calendar icon.



- o Here, the user can choose the future dates on which the user will harvest the crop.
- The user cannot select future dates since they are disabled.
- The user can select the date several times before submitting and the chosen dates can be cleared by the user by clicking on clear button.
- Label: Targeted Crop Yield
  - The Crop Yield measuring unit must be selected while adding the actual crop yield data.
  - The default message "0" must appear inside the dropdown box.
  - To add data according to the chosen unit, first the user must choose the measuring unit from the dropdown menu.
- Label: Yield Unit
  - The following measuring unit names must be shown in the menu.
    - Metric Tonnes (MT)
    - Quintal (Qt)
    - Kilogram (Kg)
  - The following are the unit's conversions and their respective formulas
    - Metric Tonne (MT) to Quintal (Qt) conversion formula

1 Metric Tonne (MT) = 
$$\frac{Quintal (Qt)}{10}$$

• Metric Tonne (MT) to Kilogram (Kg) conversion formula

1 Metric Tonne (MT) = 
$$\frac{Kilogram (Kg)}{1000}$$

• Quintal (Qt) to Metric Tonne (MT) conversion formula

1 Quintal (Qt) = 
$$Metric\ Tonne\ (MT)\ X\ 10$$

• Quintals (Qt) to Kilogram (Kg) conversion formula

1 Quintal (Qt) = 
$$\frac{Kilogram (Kg)}{100}$$

• Kilogram (Kg) to Metric Tonnes (MT) conversion formula

1 Kilogam (Kg) = 
$$Metric\ Tonne\ (MT)\ X\ 1000$$

• Kilogram (Kg) to Quintals (Qt) conversion formula

$$Kilogam (Kg) = Quintal (Qt) X 100$$

- The user can add the data several times before submitting.
- The Go back button allows the user to return to the previous screen/page, such as the Add Field Details page

- After clicking on "Add More" button the Add More Details page/popup must appear. The details are explained in section 7.1.1.10 and 7.1.1.11.
- Preview screen button should be shown. The preview screen details are explained in section 7.1.1.1.

## 7.1.2. <u>View Screen – Add Field Details – From Field Dropdown Menu</u>



#### **Notes**

- The default message "Search field name" must appear inside the dropdown box.
- The field should have search functionality, allowing the user to type the field name and select it from the list of available fields under particular farm location.
- If the field name is not in the list, then user can click on '+ Add Field' button. which is available inside the header's field selection dropdown menu, to add the required field
- After clicking on "+ Add Field' button, the Add Farm Details screen appears as shown in image section 7.1.2.1 below.

## 7.1.2.1. View Screen – Add Field Details – From Field Dropdown Menu



#### **Notes**

- Here, the user has to select the earlier added farm location name from the dropdown menu for which he would like to add the field boundary.
- Label: Farm Location
  - o The default message "Search farm location" must appear inside the dropdown box.
  - The field should have search functionality, allowing the user to type the farm location name and select it from the
     list of available farm location names to proceed further.
- The selected farm locations state/province and country names should be automatically filled into their respective fields
- Sections from 7.1.1.2, till 7.1.1.11. describe how to add farm, field, crop details and add more details fields function.
- Preview screen button should be shown. The preview screen details are explained in section 7.1.1.1.

# 7.1.2.2. View Screen – If Multiple Fields are Uploaded



- The previously filled field boundary is highlighted in green
- The user will see other field boundaries outline in white colour
- The field, crop fields and controls will function as previously described

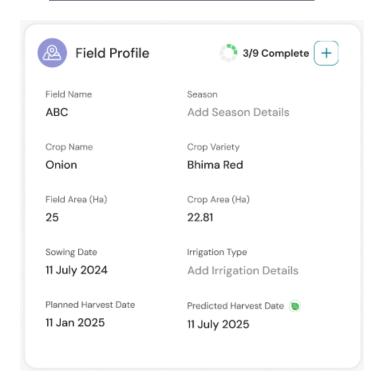
# 7.1.2.3. View Screen – If Another Field to be Drawn - Add Another Field Details



#### **Notes**

- The previously filled field boundary is highlighted in green
- Here user will geotag the field boundary using the controls provided here. The controls will function as previously described
- Newly geotagged boundary outline should be shown in white colour.
- The field and crop fields will function as previously described

# 7.2. View Screen - Added Details Progression



#### **Notes**

• The user must add details for nine user stories - farm, field, crop, plant population, season, irrigation type, historical yield, historical pest and disease, and harvest details - in order to obtain location-based insights and services, such as crop growth stage monitoring, resource management, yield estimation, and personalized suggestions.



#### **Notes**

This core services feature enables the user to add details for the remaining six user stories.



#### **Notes**

- Progress Circle
  - The progress circle shows the user story's added status progression.
  - Progress Circle is dynamic.
  - The 8 parts of the circle represent 8 user stories.
  - Ouring in-app onboarding, the user added details for the first 3 user stories: crop, field, and farm. As a result, the progress circle shows that 3 out of 8parts are filed (in green) while the remaining parts are unfilled (in grey).
  - o The number of user stories should continue to vary or increase as their status changes.

# 3/9 Complete

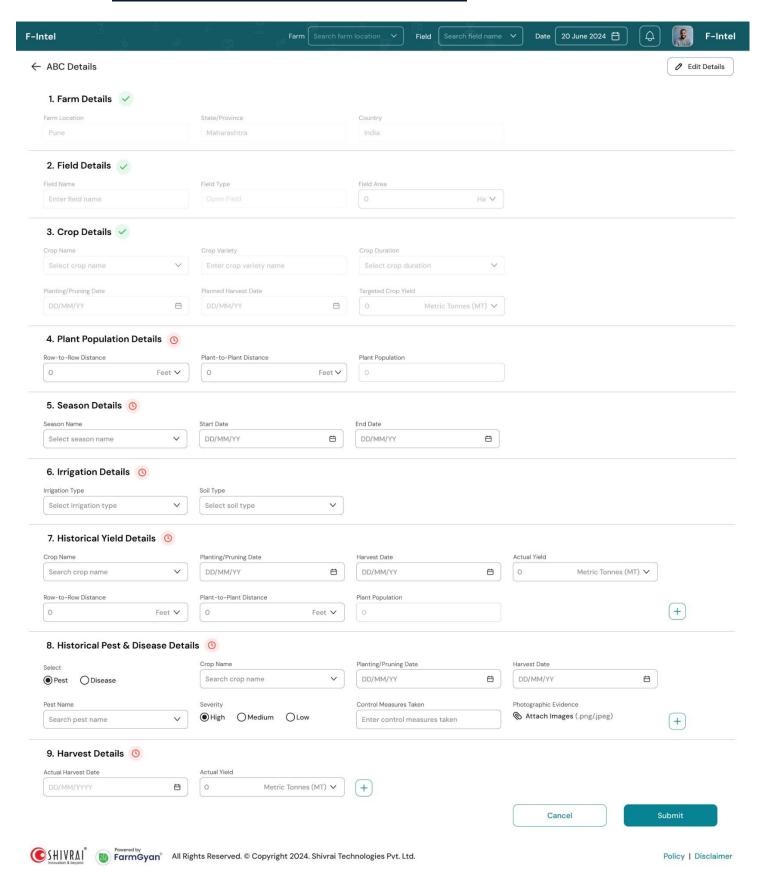
#### **Notes**

- Label: 3/8 Complete
  - The numerator, or top number, in the label is a dynamic. As the status of user stories changes, the number should continue to vary or rise. After the details are added, the user story status is updated.
  - Progress 3/8 Complete is shown next to the progression circle as the user has added the details for the first 3 user stories—farm, field, and crop—during in-app onboarding.
  - o The denominator, or bottom number, in the label is a static.
  - The word "Complete" word indicates that the user has added the detail for 3/9 user stories.

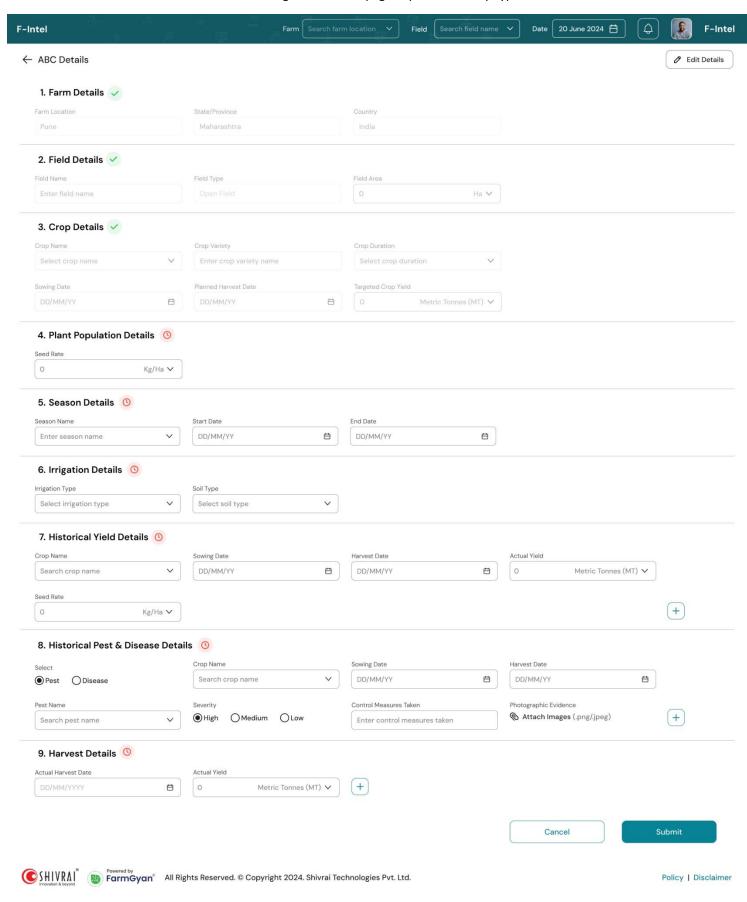


- Label: Plus Button
  - o After clicking on Plus Button, the Core Services page must appear.

# 7.2.1. <u>View Screen – Added Details Progression – Add Details</u>

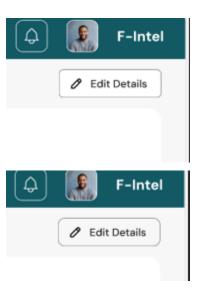


#### Image: Add details page of plantation crop type



#### **Notes**

- The user can go back to the previous page by using the "Back" arrow icon.
- The format for the page name should be Field Name Details. For example, if the name of field is ABC, then the page name should be "ABC Details."
- As seen in the shard image above, each user story has a serial number. The number starts from 1 and ends with 9.
- The status of user story details added status is indicated next to the user story name as Added (in green) or Pending (in red), as shown in above image.
- For the first 3 user stories (which are called Farm Details, Field Details and Crop Details), the details added during in-app onboarding will be automatically filled in the appropriate fields. As a result, they are disabled to add details.
- In order to allow for the user to add details, the fields for the remaining 6 user stories Plant Population Details, Season Details, Irrigation Details, Historical Yield Details, Historical Pest & Disease Details, and Harvest Details—must be enabled.



#### **Notes**

- The Edit Details button's background turns white when the mouse is hovered over it, as seen in the image above.
- After clicking on Edit Details, a few fields become editable as shown in images below.

42 | Page

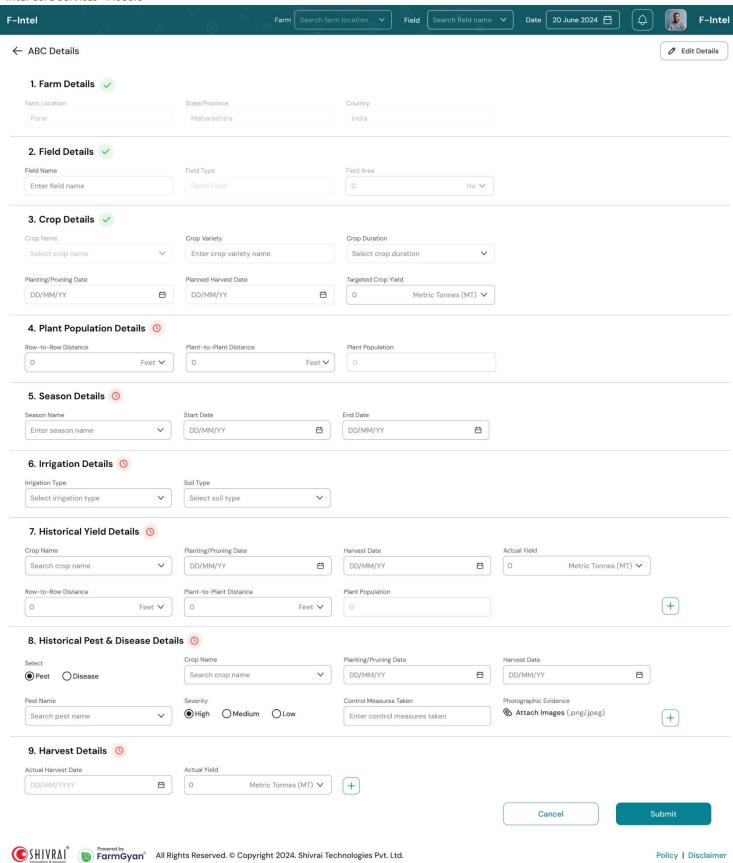


Image: Edit details page of plantation crop type

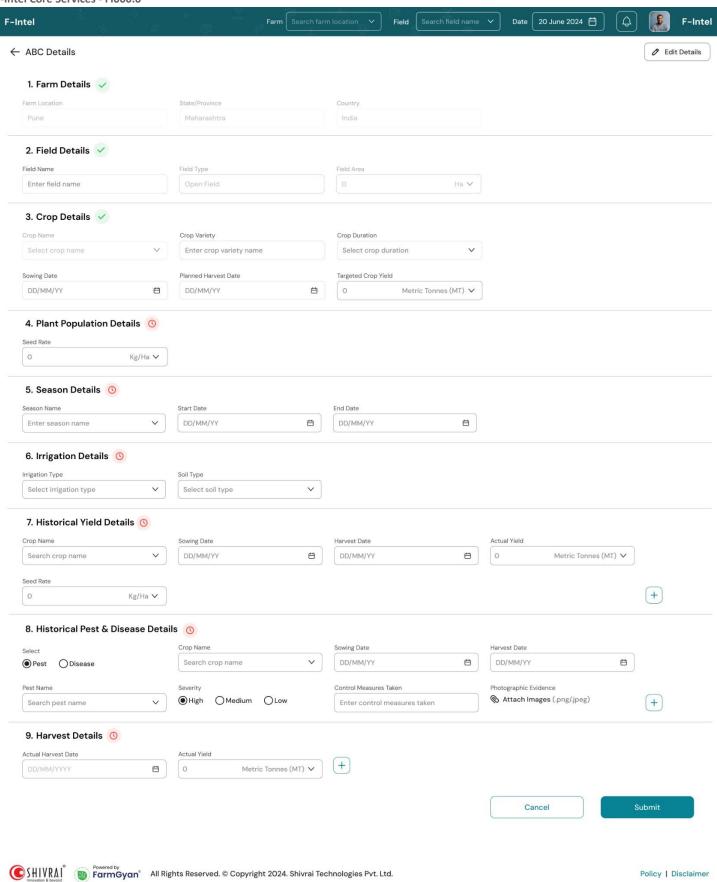


Image: Edit details page of seasonal crop type



#### **Notes**

- The "Cancel" button enables the user to cancel the adding details action.
- The "Submit" button enables the user to submit the filled details.
- The data entered in the corresponding field should be stored by the backend team. In order to improve model accuracy and provide field and crop-specific predictive intelligence, the data should also be shared with the agronomy and data science teams.

# 7.2.1.1. <u>View Screen – Add – Farm Details</u>



- As shown in the image above, when the user story details are filled out during the in-app onboarding process, the user story details added status is shown next to the user story name as a green tick in the center inside a light green circle.
- Under the Farm Details user story, the following fields must appear.
- The following fields should be automatically filled with details.
  - o Label: Farm Location
    - The farm location field will function like a Google Maps search and display a list of several place names, from which the user can choose the one where his fields are located during the in-app onboarding process.
    - The details added during the in-app onboarding process must be automatically entered into the field.
    - The details submitted by the user during in-app onboarding is shown here.
  - Label: State/Province
    - The state or provincial name must to be automatically inserted in the field based on the selected farm location.
    - The details added during the in-app onboarding process must be automatically entered into the field.
    - The details submitted by the user during in-app onboarding is shown here.
  - Label: Country
    - The country name must to be automatically inserted in the field based on the selected farm location.
    - The details added during the in-app onboarding process must be automatically entered into the field.
    - The details submitted by the user during in-app onboarding is shown here.
- Edit Details Farm Details

#### 1. Farm Details 🗸



Farm Location	State/Province	Country
Pune	Maharashtra	India

- Label: Farm Location
  - Editing option is disabled.
- Label: State/Province
  - Editing option is disabled.
- Label: Country
  - Editing option is disabled.

#### 7.2.1.2. View Screen - Add - Field Details

### 2. Field Details 🔍



Field Name	Field Type	Field Area
Enter field name		O Ha ∨

#### **Notes**

- As shown in the image above, when the user story details are filled out during the in-app onboarding process, the user story details added status is shown next to the user story name as a green tick in the center inside a light green circle.
- Under the Field Details user story, the following fields must appear.
- The following fields should be automatically filled with details.
  - Label: Field Name
    - The user will enter the field's name in the text box here.
    - The details added during the in-app onboarding process must be automatically entered into the field.
    - The details submitted by the user during in-app onboarding is shown here.
  - Label: Field Type
    - The field type "Open Field" is hardcoded for every field.
    - The details added during the in-app onboarding process must be automatically entered into the field.
    - The details submitted by the user during in-app onboarding is shown here.
  - Label: Field Area
    - The field area is automatically calculated specific to the selected field and has Ha as its default unit, however the user has the choice to view the field area in Acre, the Field Area should display in acres if the user selected the Unit as Acre.
    - The following are the unit's conversions and their respective formulas
      - Hectares to Acres conversion formula

# Hectare = $Acre \times 2.47105$

Acres to Hectares conversion formula

# $Acre = Hectare \times 0.404686$

- Label: Area Unit
  - The field area unit selected during the in-app onboarding process must be automatically shown into the field.
    - The following are the field area measuring units:
      - o Ha
      - Acre
  - The details submitted by the user during in-app onboarding or core services is shown here.
- Edit Details Field Details

# 2. Field Details Field Name Field Type Field Area Open Field O Ha Label: Field Location

- Editing option is enabled.
- Label: Field Type
  - Editing option is disabled.
- Label: Field Area
  - Editing option is disabled.
- o Label: Area Unit
  - Editing option is enabled.

# 7.2.1.3. <u>View Screen – Add – Crop Details</u>

# 3. Crop Details 🗸

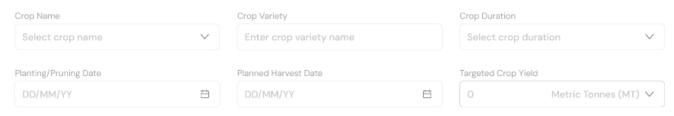


Image: Add Crop details user story if the crop is plantation type

### 3. Crop Details

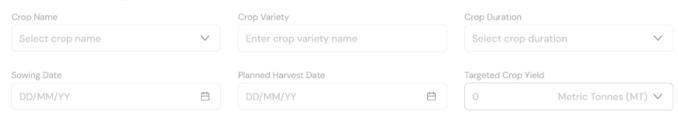


Image: Add Crop details user story if the crop is seasonal type

- As shown in the image above, when the user story details are filled out during the in-app onboarding process, the user story details added status is shown next to the user story name as a green tick in the center inside a light green circle.
- Under the Crop Details user story, the following fields must appear if the crop is seasonal or plantation type.
- The following fields should be automatically filled with details.
  - o Label: Crop Name
    - The crop name selected during the in-app onboarding process must be automatically shown into the field.
    - The details submitted by the user during in-app onboarding is shown here.
  - Label: Crop Variety
    - The crop variety name added during the in-app onboarding process must be automatically shown into the field.
    - The details submitted by the user during in-app onboarding is shown here.
  - Label: Crop Duration
    - The crop duration selected during the in-app onboarding process must be automatically shown into the field.
    - The details submitted by the user during in-app onboarding is shown here.
  - Label: Planting/Pruning Date or Sowing Date
    - The Planting/Pruning Date label should appear automatically if the crop added/selected is a plantation crop type during the in-app onboarding process.
    - The Sowing Date label should appear automatically if the crop added/selected is a seasonal crop type during the in-app onboarding process.
    - The details submitted by the user during in-app onboarding is shown here.
  - Label: Planned Harvest Date
    - The Planned Harvest Date added during the in-app onboarding process must be automatically shown into the field.
    - The details submitted by the user during in-app onboarding is shown here.
  - Label: Targeted Crop Yield
    - The Targeted Crop Yield added during the in-app onboarding process must be automatically shown into the field.

- The crop yield measuring unit selected during the in-app onboarding process must be automatically shown into the field.
- The details submitted by the user during in-app onboarding and core services is shown here.
- o Label: Yield Unit
  - The following measuring unit names must be shown in the menu.
    - Metric Tonnes (MT)
    - Quintal (Qt)
    - Kilogram (Kg)
  - The following are the unit's conversions and their respective formulas
    - Metric Tonne (MT) to Quintal (Qt) conversion formula

1 Metric Tonne (MT) = 
$$\frac{Quintal (Qt)}{10}$$

• Metric Tonne (MT) to Kilogram (Kg) conversion formula

1 Metric Tonne (MT) = 
$$\frac{Kilogram (Kg)}{1000}$$

• Quintal (Qt) to Metric Tonne (MT) conversion formula

1 Quintal (Qt) = 
$$Metric\ Tonne\ (MT)\ X\ 10$$

• Quintals (Qt) to Kilogram (Kg) conversion formula

1 Quintal (Qt) = 
$$\frac{Kilogram(Kg)}{100}$$

• Kilogram (Kg) to Metric Tonnes (MT) conversion formula

1 Kilogam (Kg) = 
$$Metric\ Tonne\ (MT)\ X\ 1000$$

• Kilogram (Kg) to Quintals (Qt) conversion formula

$$Kilogam (Kg) = Quintal (Qt) X 100$$

• Edit Details – Crop Details

# 3. Crop Details 🗸

#### Image: Edit Crop Details user story if the crop is plantation type

# 3. Crop Details ✓ Crop Name Crop Variety Crop Duration Select crop name ✓ Enter crop variety name Select crop duration ✓ Sowing Date Planned Harvest Date Targeted Crop Yield DD/MM/YY 🗎 DD/MM/YY 🗎 0 Metric Tonnes (MT) ✓

Image: Edit Crop Details user story if the crop is seasonal type

- Label: Crop Name
  - Editing option is disabled.
- Label: Crop Variety
  - Editing option is enabled.
- Label: Crop Duration
  - Editing option is enabled.
- Label: Planting/Pruning Date or Sowing Date
  - Editing option is enabled.
- o Label: Planned Harvest Date
  - Editing option is enabled.
- Label: Targeted Crop Yield
  - Editing option is enabled.
- o Label: Yield Unit
  - Editing option is enabled.

# 7.2.1.4. <u>View Screen – Add – Season Details</u>

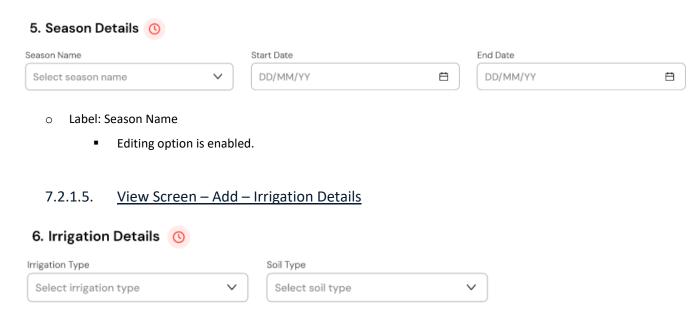
# Season Details Season Name Start Date DD/MM/YY End Date DD/MM/YY

- As shown in the image above, until user fills all the fields of the use story details, the user story details added status is shown next to the user story name as a red clock in the center inside a light red circle.
- Under the Season Details user story, the following fields must appear.
- The user has to fill the following fields:
  - Label: Season Name
    - The default message "Select season name" must appear inside the dropdown box.

- To display the season names inside the dropdown, the Dev Team needs to upload the season name master data.
- The user has to select the season name from the list that appears here.
- Once all the fields of the user story details are filled added, then the user story details added status is shown next to the user story name should be shown as a green tick in the center inside a light green circle as shown in the image below.



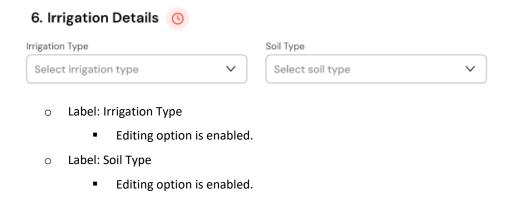
• Edit Details – Season Details



- As shown in the image above, until user fills all the fields of the use story details, the user story details added status is shown next to the user story name as a red clock in the center inside a light red circle.
- Under the Irrigation Details user story, the following fields must appear.
- The user has to fill the following fields:
  - Label: Irrigation Type
    - The default message "Select irrigation type" must appear inside the dropdown box.
    - To display the types irrigation inside the dropdown, the Dev Team needs to upload the irrigation type master data.
    - The user has to select the irrigation type from the list that appears here.
  - Label: Soil Type
    - The default message "Select soil type" must appear inside the dropdown box.
    - To display the soil types inside the dropdown, the Dev Team needs to upload the soil type master data.
    - The user has to select the soil type from the list that appears here.
- Once all the fields of the user story details are filled added, then the user story details added status is shown next to the user story name should be shown as a green tick in the center inside a light green circle as shown in the image below.

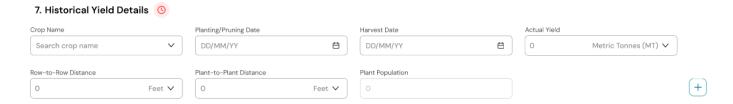


Edit Details – Irrigation Details

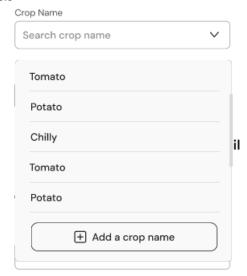


#### 7.2.1.6. <u>View Screen – Add – Historical Yield Details</u>

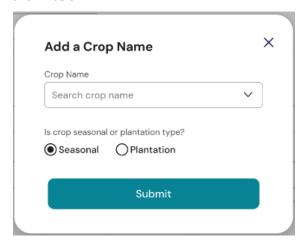
# 7.2.1.6.1. View Screen – Add – Historical Yield Details – Plantation Crop Type



- As shown in the image above, until user fills all the fields of the use story details, the user story details added status is shown next to the user story name as a red clock in the center inside a light red circle.
- Under the Historical Yield Details user story, the following fields must appear if the crop is plantation type.
- The user has to fill the following fields:
  - o Label: Crop Name
    - The default message "Search crop name" must appear inside the dropdown box.
    - To display the crop names inside the dropdown, the Dev Team needs to upload the crop name master data.
    - The field should have search functionality, allowing the user to type the crop's name and select it from the list of available crops.
    - If the crop name is not in the list, then user can click on '+ Add a Crop Name' to add the crop name.



 After clicking on '+ Add a Crop Name' pop up with title name "Add a Crop Name" appears on screen as shown below.



- The Add a Crop Name pop up should have the following fields.
  - Label: Crop Name
    - The default message "Search crop name" must appear inside the dropdown box.
    - To display the crop names inside the dropdown, the Dev Team needs to upload the crop name master data.
    - o User can select a crop name from the dropdown box.
  - Label: Is crop seasonal or plantation type?
    - o The answer to the question is either Seasonal or Plantation.
    - None of the options (Seasonal or Plantation) should be selected before the user selects.
       The user alone will decide whether to say Seasonal or Plantation.
  - Button: Submit
    - The "Submit" button enables the user to submit the filled details.
    - Since there is no editing option, the user cannot edit the information once the details have been submitted.

- The user can go back to the previous page by using the "Cut" icon.
- o Label: Planting/Pruning Date or Sowing Date
  - The Planting/Pruning Date label appears if the added/selected crop is plantation crop type.
  - The Sowing Date label appears if the added/selected crop is seasonal crop type.
  - The default message "DD/MM/YY" must appear inside the dropdown box.
  - Planting/Pruning Date or Sowing Date is a date picker in DD/MM/YYYY format
  - The shared calendar below should open up when the user clicks on the calendar icon.



- Here, the user can choose the historical dates on which the user has planted or pruned the crop.
- The user cannot select future dates since they are disabled.
- The user can select the date several times before submitting and the chosen dates can be cleared by the user by clicking on clear button.
- o Label: Harvest Date
  - The default message "DD/MM/YY" must appear inside the dropdown box.
  - Harvest Date is a date picker in DD/MM/YYYY format
  - The shared calendar below should open up when the user clicks on the calendar icon.



- Here, the user can choose the historical dates on which the user has harvested the crop.
- The user cannot select future dates since they are disabled.

- The user can select the date several times before submitting and the chosen dates can be cleared by the user by clicking on clear button.
- o Label: Actual Yield
  - The default message "0" must appear inside the dropdown box.
  - To add data, users must first select the measuring unit from the dropdown menu, ensuring the yield unit is chosen when entering actual crop yield data.
  - Show the validation message if yield unit is not selected before adding the data.
- o Label: Yield Unit
  - The following measuring unit names must be shown in the menu.
    - Metric Tonnes (MT)
    - Quintal (Qt)
    - Kilogram (Kg)
  - The following are the unit's conversions and their respective formulas
    - Metric Tonne (MT) to Quintal (Qt) conversion formula

1 Metric Tonne (MT) = 
$$\frac{Quintal (Qt)}{10}$$

• Metric Tonne (MT) to Kilogram (Kg) conversion formula

1 Metric Tonne (MT) = 
$$\frac{Kilogram (Kg)}{1000}$$

• Quintal (Qt) to Metric Tonne (MT) conversion formula

1 Quintal (Qt) = 
$$Metric\ Tonne\ (MT)\ X\ 10$$

• Quintals (Qt) to Kilogram (Kg) conversion formula

1 Quintal (Qt) = 
$$\frac{Kilogram (Kg)}{100}$$

• Kilogram (Kg) to Metric Tonnes (MT) conversion formula

1 Kilogam (Kg) = 
$$Metric\ Tonne\ (MT)\ X\ 1000$$

• Kilogram (Kg) to Quintals (Qt) conversion formula

$$Kilogam (Kg) = Quintal (Qt) X 100$$

- The user can add the data several times before submitting.
- Button: Plus
  - This is a clickable button.

- Here, the user must add the details for at least one row or season. However, the user can submit the details form up to four rows or four seasons more than once.
- When the user is filling out the details for a new row or season, all of the previously filled-out information should be shown in the appropriate fields.
- As seen in the image below, a new row including all 4 fields must appear beneath the previous row or season after clicking the Plus button.
- The functionality of the fields is explained in the section above.

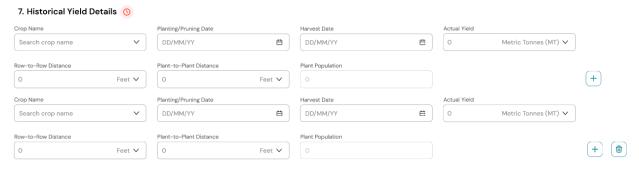


Image: Add Historical Yield details user story if both crops are plantation type

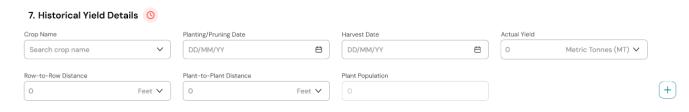


Image: Add Historical Yield details user story if one crop is plantation type and another is seasonal type

- Button: Delete
  - This is a clickable button.
  - After clicking the Delete button, a new row with all 4 fields must disappear.
- Once all the fields of the user story details are filled added, then the user story details added status is shown next to the user story name should be shown as a green tick in the center inside a light green circle as shown in the image below.



Edit Details – Historical Yield Details



- o Label: Crop Name
  - Editing option is enabled.
- Label: Planting/Pruning Date or Sowing Date
  - Editing option is enabled.
- Label: Harvest Date
  - Editing option is enabled.
- Label: Actual Yield
  - Editing option is enabled.
- Label: Yield Unit
  - Editing option is enabled.

#### 7.2.1.7. View Screen – Add – Historical Pest & Disease Details

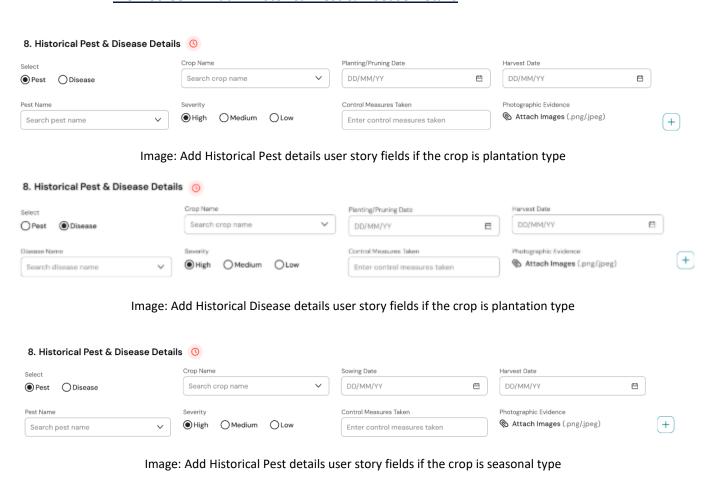
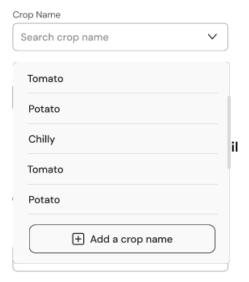


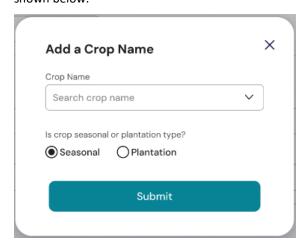
Image: Add Historical Disease details user story fields if the crop is seasonal type

#### **Notes**

- As shown in the image above, until user fills all the fields of the use story details, the user story details added status is shown next to the user story name as a red clock in the center inside a light red circle.
- Under the Historical Pest & Disease Details user story, the following fields must appear.
- The user has to fill the following fields:
  - o Label: Crop Name
    - The default message "Search crop name" must appear inside the dropdown box.
    - To display the crop names inside the dropdown, the Dev Team needs to upload the crop name master data.
    - The field should have search functionality, allowing the user to type the crop's name and select it from the list of available crops.
    - If the crop name is not in the list, then user can click on '+ Add a Crop Name' to add the crop name.



 After clicking on '+ Add a Crop Name' pop up with title name "Add a Crop Name" appears on screen as shown below.



The Add a Crop Name pop up should have the following fields.

- Label: Crop Name
  - The default message "Search crop name" must appear inside the dropdown box.
  - To display the crop names inside the dropdown, the Dev Team needs to upload the crop name master data.
  - The field should have search functionality, allowing the user to type the crop's name and select it from the list of available crops.
- Label: Is crop seasonal or plantation type?
  - The answer to the question is either Seasonal or Plantation.
  - None of the options (Seasonal or Plantation) should be selected before the user selects.
     The user alone will decide whether to say Seasonal or Plantation.
- Button: Submit
  - The "Submit" button enables the user to submit the filled details.
  - Since there is no editing option, the user cannot edit the information once the details have been submitted.
- The user can go back to the previous page by using the "Cut" icon.
- o Label: Planting/Pruning Date or Sowing Date
  - The Planting/Pruning Date label appears if the added/selected crop is plantation crop type.
  - The Sowing Date label appears if the added/selected crop is seasonal crop type.
  - The default message "DD/MM/YY" must appear inside the dropdown box.
  - Planting/Pruning Date or Sowing Date is a date picker in DD/MM/YYYY format
  - The shared calendar below should open up when the user clicks on the calendar icon.



- Here, the user can choose the historical dates on which the user has planted or pruned the crop.
- The user cannot select future dates since they are disabled.
- The user can select the date several times before submitting and the chosen dates can be cleared by the user by clicking on clear button.
- Label: Harvest Date
  - The default message "DD/MM/YY" must appear inside the dropdown box.

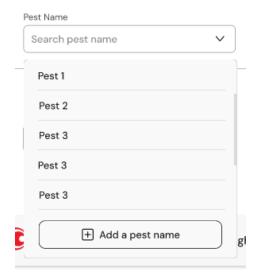
- Harvest Date is a date picker in DD/MM/YYYY format
- The shared calendar below should open up when the user clicks on the calendar icon.



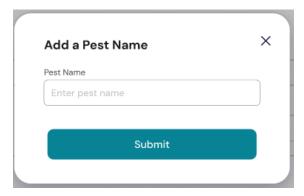
- Here, the user can choose the historical dates on which the user has harvested the crop.
- The user cannot select future dates since they are disabled.
- The user can select the date several times before submitting and the chosen dates can be cleared by the user by clicking on clear button.

#### Label: Select

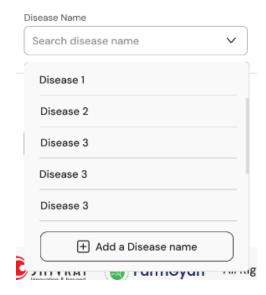
- Here, the use has to choose either Pest or Disease. The choosing pest or disease indicates, user is adding the following details either Pest or Disease.
- None of the options (Pest or Disease) should be selected before the user selects. The user alone will
  decide whether to say Pest or Disease.
- o Label: Pest Name or Disease Name
  - The label is dynamic and it will vary depending on the Pest or Disease is selected.
    - If Pest is selected then the label name should be Pest Name.
      - o The default message "Search pest name" must appear inside the dropdown box.
      - If the pest name is not in the list, then user can click on '+ Add a Pest Name' to add the
        pest name.



After clicking on '+ Add a Pest Name' pop up with title name "Add a Pest Name" appears
on screen as shown below.



- The Add a Pest Name pop up should have the following fields.
  - Label: Pest Name
    - The default message "Enter pest name" must appear inside the dropdown box.
    - User can enter a pest name in the text box.
  - Button: Submit
    - The "Submit" button enables the user to submit the filled details.
    - Since there is no editing option, the user cannot edit the information once the details have been submitted.
- The user can go back to the previous page by using the "Cut" icon.
- If Disease is selected then the label name should be Disease Name.
  - o The default message "Search disease name" must appear inside the dropdown box.
  - If the disease name is not in the list, then user can click on '+ Add a Disease Name' to add the disease name.

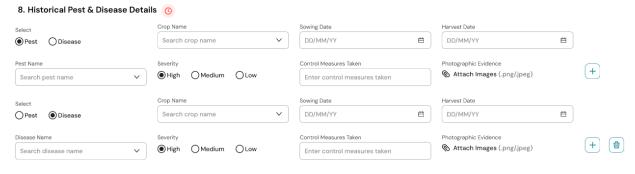


 After clicking on '+ Add a Disease Name' pop up with title name "Add a Disease Name" appears on screen as shown below.



- The Add a Disease Name pop up should have the following fields.
  - Label: Disease Name
    - The default message "Enter disease name" must appear inside the dropdown box.
    - User can enter a disease name in the text box.
  - Button: Submit
    - The "Submit" button enables the user to submit the filled details.
    - Since there is no editing option, the user cannot edit the information once the details have been submitted.
- The user can go back to the previous page by using the "Cut" icon.
- Label: Severity
  - Here, user selects the severity of the chosen pest or disease attack as per the user's observation.
  - The answer to the question is either High or Medium or Low.
  - None of the options (High or Medium or Low) should be selected before the user selects. The user alone will decide whether to say High or Medium or Low.

- Button: Plus
  - This is a clickable button.
  - Here, the user must add the details for at least one row or season. However, the user can submit the details form up to four rows or four seasons more than once.
  - When the user is filling out the details for a new row or season, all of the previously filled-out information should be shown in the appropriate fields.
  - As seen in the image below, a newly added row including all 6 fields must appear beneath the previous row or season after clicking the Plus button.
  - The functionality of the fields is explained in the section above.



- Button: Delete
  - This is a clickable button.
  - After clicking the Delete button, a newly added row with all 6 fields must disappear.
- Once all the fields of the user story details are filled added, then the user story details added status is shown next to the
  user story name should be shown as a green tick in the center inside a light green circle as shown in the image below.



• Edit Details – Historical Pest & Disease Details

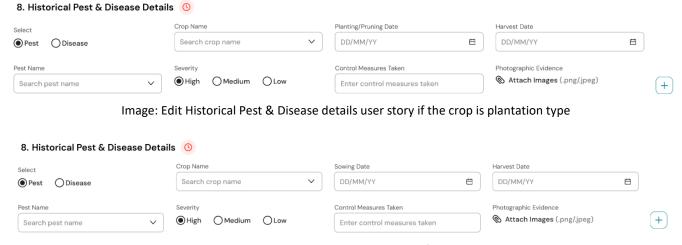


Image: Edit Historical Pest & Disease details user story if the crop is seasonal type

- Label: Crop Name
  - Editing option is enabled.

- o Label: Planting/Pruning Date or Sowing Date
  - Editing option is enabled.
- Label: Harvest Date
  - Editing option is enabled.
- Label: Select
  - Editing option is enabled.
- o Label: Pest Name or Disease Name
  - Editing option is enabled.
- Label: Severity
  - Editing option is enabled.

# 7.2.1.8. <u>View Screen – Add – Harvest Details</u>



- As shown in the image above, until user fills all the fields of the use story details, the user story details added status is shown next to the user story name as a red clock in the center inside a light red circle.
- Under the Harvest Details user story, the following fields must appear.
- The user has to fill the following fields:
  - Label: Actual Harvest Date
    - The default message "DD/MM/YY" must appear inside the dropdown box.
    - Actual Harvest Date is a date picker in DD/MM/YYYY format
    - The shared calendar below should open up when the user clicks on the calendar icon.



- Here, the user can choose the historical dates on which the user has harvested the crop.
- The user cannot select future dates since they are disabled.

- The user can select the date several times before submitting and the chosen dates can be cleared by the user by clicking on clear button.
- After the data is submitted, the editing option should be disabled.
- Label: Actual Yield
  - The Actual Crop Yield measuring unit must be selected while adding the actual crop yield data.
  - The default message "0" must appear inside the dropdown box.
  - To add data according to the chosen unit, first the user must choose the measuring unit from the dropdown menu. If not show validation message.
- Label: Yield Unit
  - The following measuring unit names must be shown in the menu.
    - Metric Tonnes (MT)
    - Quintal (Qt)
    - Kilogram (Kg)
  - The following are the unit's conversions and their respective formulas
    - Metric Tonne (MT) to Quintal (Qt) conversion formula

1 Metric Tonne (MT) = 
$$\frac{Quintal (Qt)}{10}$$

• Metric Tonne (MT) to Kilogram (Kg) conversion formula

1 Metric Tonne (MT) = 
$$\frac{Kilogram (Kg)}{1000}$$

Quintal (Qt) to Metric Tonne (MT) conversion formula

1 Quintal (Qt) = 
$$Metric\ Tonne\ (MT)\ X\ 10$$

Quintals (Qt) to Kilogram (Kg) conversion formula

1 Quintal (Qt) = 
$$\frac{Kilogram (Kg)}{100}$$

• Kilogram (Kg) to Metric Tonnes (MT) conversion formula

1 Kilogam (Kg) = 
$$Metric\ Tonne\ (MT)\ X\ 1000$$

• Kilogram (Kg) to Quintals (Qt) conversion formula

$$Kilogam (Kg) = Quintal (Qt) X 100$$

- The user can add the data several times before submitting.
- Button: Plus
  - This is a clickable button.

- Here, the user must add the harvest details. However, the user can submit the multiple harvest details using the Plus button.
- When the user is filling out another harvest details, all of the previously filled-out information should be shown in the appropriate fields.
- As seen in the image below, a newly added row including all 2 fields must appear beneath the previous added details after clicking the Plus button.
- The functionality of the fields is explained in the section above.
- 8. Historical Details



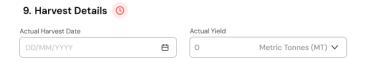
- o Button: Delete
  - This is a clickable button.
  - After clicking the Delete button, a newly added row with all 2 fields must disappear.

.

• Once all the fields of the user story details are filled added, then the user story details added status is shown next to the user story name should be shown as a green tick in the center inside a light green circle as shown in the image below.



Edit Details – Harvest Details



- o Label: Actual Harvest Date
  - Editing option is enabled.
- Label: Actual Yield
  - Editing option is enabled.
- Label: Yield Unit
  - Editing option is enabled.

# 7.3. Cancel & Close Functionality

#### **Notes**

Not applicable

#### 7.4. Reverse Functionality

# **Notes**

Not applicable

# 7.5. Field Descriptions – Add Farm Details -From Dashboard

#	FIELD NAME	FIELD DESCRIPTION	ACCEPTANCE DATA/CRITERIA	ERROR MESSAGE	PREREQUISITE	Enabled/Disabled
1	Farm Location	The farm location field will function like a Google Maps search and display a list of several place names, from which the user can choose the one where his fields are located  Note: Search farm location to initiate onboarding	- This is a search box  - The farm location field will function like a Google Maps search and display a list of several place names, from which the user can choose the one where his fields are located  - Maintain farm location	NA	NA	NA
			code at the backend  Note to be shown below farm location field			
2	North Direction	The north direction Icon shows the North Direction of the farm. After clicking on it the map should reset to North Direction. After mouse hover tooltip should show Reset Bearing to North as illustrated below	- This is a ma control  - The north direction Icon shows the North Direction of the farm  - After clicking on it the map should reset to North Direction	NA	NA	NA
			<ul> <li>After mouse hover tooltip should show Reset Bearing to North as illustrated below</li> </ul>			
3	Zoom in (+) or Zoom out (-)	Zoom controls (Zoom in (+) or Zoom out (-)) or mouse scrolling help the user to get closer or wider view of the map. After mouse hover tooltip should show Zoom In or Zoom	- This is a ma control  - Zoom controls (Zoom in (+) or Zoom out (-)) or mouse scrolling help the user to get closer or wider view of the map.	NA	NA	NA
		Out	- After mouse hover tooltip should show Zoom In or Zoom Out			
4	State/Province Name	Here the user will see the state/province name of the farm location  The names should be auto filled	<ul> <li>These are textbox</li> <li>This box should be auto filled corresponding to farm location</li> </ul>	NA	NA	NA
5	Country Name	Here the user will see country name of the farm location  The names should be auto filled	- These are textbox - This box should be auto filled corresponding to farm location	NA	NA	NA
6	Add Field Details	After clicking on this button, the popup titled "Select an option to add a field" appears	<ul> <li>This is a clickable button</li> <li>After clicking on this button, the popup titled "Select an option to add a field" appears</li> </ul>	NA	NA	NA
7	Pop up	Popup	- This is a pop up  - Here use can choose to upload or drag and drop files or draw field boundary	NA	NA	NA
8	Choose file to upload or drag and drop	The user can upload files in the following formats:.kml,.kmz,.shp,.geojson, or zip files	- This is an upload section - Choose file will be hyperlink and on click of	NA	NA	NA

 	s Services - Fluuu.u					
			which pop up opens to choose file  - Here the user can upload files in the following formats: kml/kmz/shp/geojson, or zip files  - Upon adding correct file format. File name along with file extension is shown.  - User can remove the file using cut button.  - In case user selects wrong file format to upload then show validation message  - User can add multiple			
			files in one go.  - File size up to 10 MB else show validation message.			
9	Draw Field	Here user can outline field boundaries by drawing a polygon	- This is clickable button - To geotag the farm, users should select the Draw Polygon control then click on each corner of the field, creating points in either a clockwise or counterclockwise direction - User must add minimum 4 coordinates while geotagging a field boundary - To complete the loop, users must click on the first point added, finalizing the polygon shape - The user must utilize the undo control to remove the added geolocation point or coordinate, which erases the point or coordinate - In order to add the deleted geolocation, point or coordinate, the user needs to use the redo control	NA	NA NA	NA
10	Add Field Details	Add Field Details as tooltip	- This is a tooltip  - Add Field Details as tooltip should appear when user mouse hoven on the field boundary  - After clicking on Add Field Details field specific field details will appear	NA	NA	NA
11	Field Name	Here user enter the field name	- This is a text box - Default – Enter field name	NA	NA	NA

EI COI	e Services - Fl000.0					
			- Here user enters the field name  - Field name cannot be duplicate else show validation message			
			- Maintain field code at the backend			
12	Field Type	The field type "Open Field" is hardcoded for every field	- This is text box - The field type "Open Field" is hardcoded for every field	NA	NA	NA
13	Field Area	The field area is automatically calculated specific to the selected field and has Ha as its default unit, however the user has the choice to view the field area in Acre, the Field Area should display in acres if the user selected the Unit as Acre	- This is numeric box  - The field area is automatically calculated specific to the selected field and has Ha as its default unit  - The user has the choice to view the field area in Acre  - The Field Area should display in acres if the user selected the Unit as Acre	NA	NA	NA
14	Field Area Unit	Here the use sees the field are in his required units	This is unit drop down The area is seen in Hectare (Ha) or in Acre (Ac) The user does not have the option to see the area in different units			
15	Go Back	The Go back button allows the user to return to the previous screen	- This is clickable button - The button allows the user to return to the previous screen	NA	NA	NA
16	Add Crop	After clicking on Add Crop button, the Add Crop Details page will appear so user can add field-specific crop details	- This is a clickable button  - After clicking on Add Crop button, the Add Crop Details page  - e will appear so user can add field-specific crop details	NA	NA	NA
17	Crop Name	This has crop name master data in dropdown  User must choose a crop from the dropdown list that he is growing or plan to grow	This is a drop down  The crop name master data has uploaded from the back end  User must choose a crop from the dropdown list that he is growing or plan to grow	NA	NA	NA
18	Crop Variety	Here user will specify the crop variety he is growing or plan to grow	- This is a text box  - Here user will specify the crop variety he is growing or plan to grow	NA	NA	NA
19	Crop Duration	This has crop duration master data in dropdown  User must choose a crop duration from the dropdown list that he is growing or plan to grow	- This is a drop down - The crop duration master data has uploaded from the back end	NA	NA	NA

er core	e Services - Fluuu.u					
			User must choose a crop duration from the dropdown list that he is growing or plan to grow			
20	Sowing/Planting/Harvesting Date	Here user will add the Sowing/Planting/Pruning Date	- This is a date picker  - Sowing/Planting/Pruning Date label is dynamic, it will vary depending on the crop selected  - Plantation crops are labelled  "Planting/Pruning Date,"	NA	NA	NA
			- Seasonal crops are labelled "Sowing Date"  - " This tagged data will be supplied by the agronomy team and must be provided from the backend			
			- Sowing/Planting/Pruning Date is a date picker in DD/MM/YYYY format			
21	Planned Harvest Date	Here user will add the planned harvest date	- This is a date picker - Planned Harvest Date is a date picker in DD/MM/YYYY format	NA	NA	NA
22	Targeted Crop Yield	Here user will add the targeted crop yield  Targeted Crop Yield is a numeric field; the user must select the crop yield measuring unit before entering the values.  Metric tons (MT), kilograms (Kg), and quintals (Qt) are the units used to measure crop yield	- This is numeric field  - Here user will add the targeted crop yield as per the unit chosen or used to measure the yield	NA	NA	NA
23	Unit	Here user will choose the crop yield unit	- This is unit dropdown  - The user can choose from the following unit's Metric tons (MT), kilograms (Kg), and quintals (Qt)	NA	NA	NA
26	Go To Dashboard	The dashboard home page will display after selecting "Go To Dashboard," and it should provide the user with field and crop-specific intelligence data	- This is a clickable button  - The dashboard home page will display after selecting "Go To Dashboard," and it should provide the user with field and crop- specific intelligence data	NA	NA	NA
27	Preview Screen	The preview screen popup displays the summary of previously added farm, field, and crop details	- This is a clickable button  - After clicking on preview button, the preview screen popup displays the summary of previously added farm, field, and crop details	NA	NA	NA

# 7.6. <u>Scenarios</u>

#	SCENERIO NAME	SCENERIO DESCRIPTION & IMPACT

# 8. Common Validations

# Add Form

#	FIELD NAME	FIELD DESCRIPTION	Applicable Y/N

#### View Form

#	FIELD NAME	FIELD DESCRIPTION	Applicable Y/N
1			

# 9. Edit Functionality

#### **Notes**

Not applicable

# 10. Account Postings

Ledger details	Explanation	Ledger Name	Dr	Cr	Dr	Cr

#### **Notes**

Not applicable

# 11. Detailed View

# **Notes**

Not applicable

# 12. Print View

#### **Notes**

Not applicable

# 13. Configuration Settings

#	CONFIG SETTING ID	CONFIG SETTING NAME	CONFIG SETTING IMPACT DETAILS

# 14. Post-Impacted Services & Reports

#	MODULE NAME	SERVICE NAME	SERVICE CODE	DESCRIPTION / IMPACT

#### **Notes**

Not applicable

15. Email Alerts