Getting Started
with
Farmer Core

User Guide for Trimble Ag Software | Farmer Core

In this User Guide you will learn Farmer Core **account setup and how to enable Precision-IQ™ (PIQ) displays for the AutoSync™ feature to sync guidance lines, field names, boundaries, landmarks, and operator information across all PIQ displays. You will also learn how to use the newest functionally Work Orders to manage your farm operations. Last, learn how to bring other data from an API connection or USB drive into Farmer Core and how to print proof of placement reports.**

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FARMER CORE ONBOARDING

◈ Trimble

Farmer Core | Full Setup Steps

FARMER CORE ONBOARDING

Below is an overview of the steps you will take to set up your Farmer Core account.

1. Create and set up a Trimble Ag Software (TAS) Account

2. Create and Edit Client/Farm/Fields

3. Add products, costs, and purchases

4. Display setup, AutoSync and Work Oders features

5. Read Equipment Data - API or USB

6. Proof of Placement Report
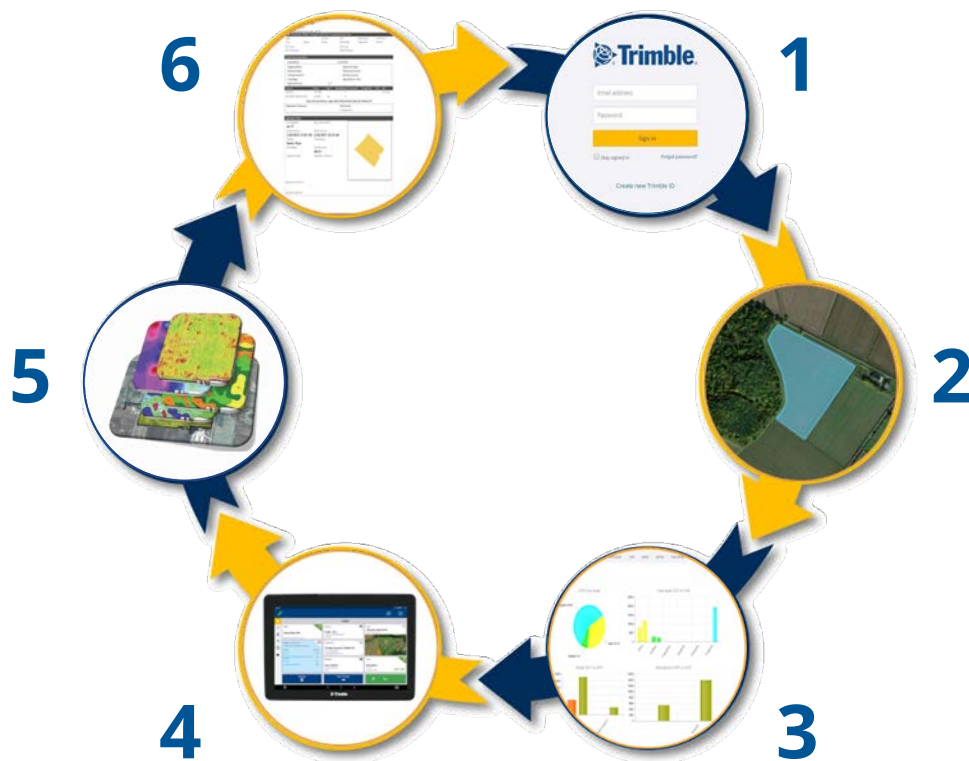
0.1

Account Setup and User Access

Online | Account Setup

Objectives - To learn how to start using the software.

In this session you will learn:

- Login to TAS Online Account
- Farmer Core Navigation
- Configure Your Settings
- Activate Add-ons in MarketPlace
- Add Contacts
  - Manage Access
- Login on TAS Mobile Account

Online | Login
FARMER CORE ONBOARDING

1. Go to: agriculture.trimble.com/software
2. Click on **Login** button on the top of the page
3. Then click on **Trimble Ag Software login**
4. Enter your Account ID **email**: **insert here**
5. Enter your password
6. Click **Sign In**

Mobile | Login
FARMER CORE ONBOARDING
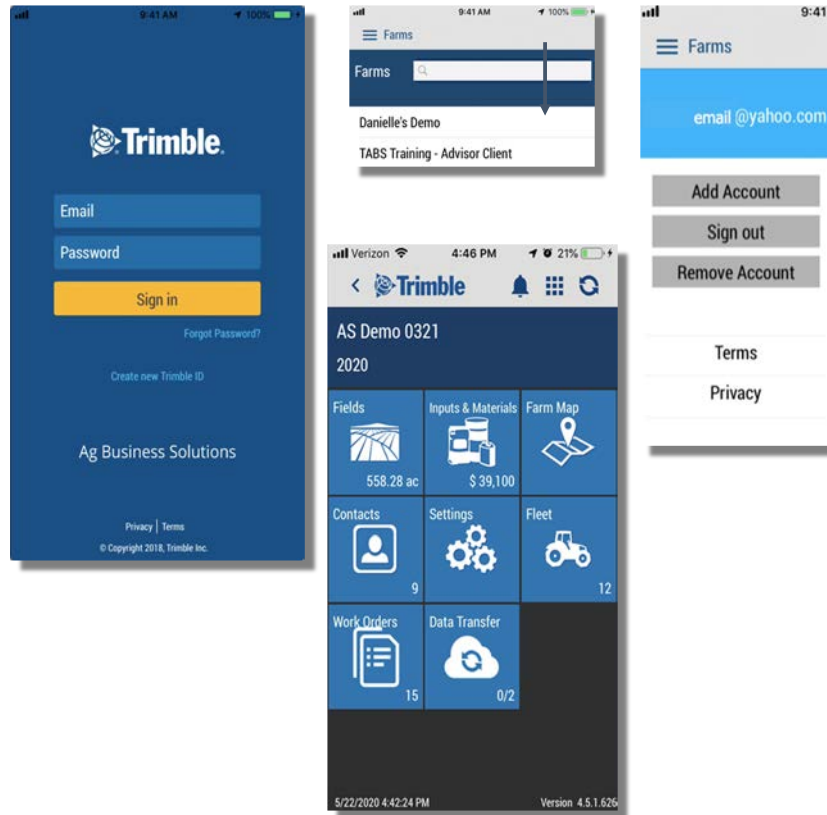
1. Download the **Trimble Ag Mobile** app for iOS or Android
2. Enter your **Company** account Trimble ID email and password
3. Tap **Sign in**
4. Accept **Terms & Conditions**
5. Tap to search or select the account name from the list

Already signed in to another account? Tap the **Farms** menu icon to **Add Account** and start from step 1.

Online | Software Settings
FARMER CORE ONBOARDING
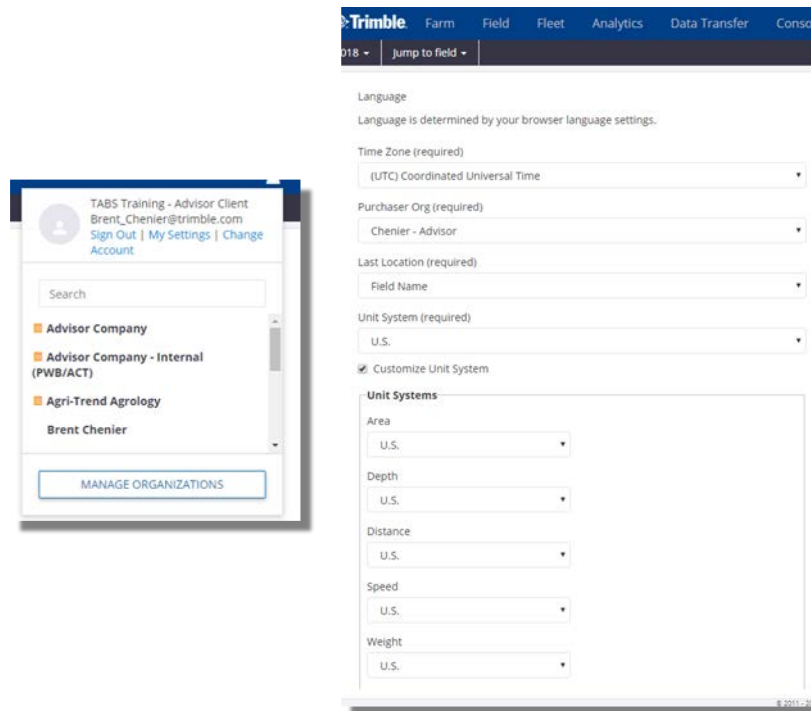
1. Click the **Person** (👤) > click **My Settings**
2. Change applicable settings from Default, if desired
3. Units of Measurements are defined in 1 of 2 ways
   a. Profile wide **Unit System (required)**: U.S. or **Metric**
   b. Check **Customized Unit System**: adjust the unit of measurement for each unit system, i.e. **Area**, **Depth**, etc.
4. Click **Save.**

▶ Watch this <u>video</u> to learn more.

◈ Trimble

Online| Support

1. The **Software Support** page can be reached by clicking on the Support button (⬛) > **Support Website**
2. Choose from 3 support avenues
   a. **Telephone** (available through support website)
   b. **Chat** (available through support button)
   c. **Email** (available through support button)

Watch this video to learn more.

Mobile | Support/Settings

Support:

1. Log into **Mobile App** with Farmer Fit/Pro credentials
2. Tap on your **Farm**
3. Tap on **Settings** tile
   a. Tap **Email Diagnostic Info** >you will be prompted to open an email app on your mobile device > add any necessary details to the body of the email.
      i. **Send** email. A diagnostic log will get sent from your smartphone email for the Mobile development team to investigate
   b. Tap **Upload Detailed Logs** if requested by Mobile development team or Support agent.

Settings:

1. Tap the desired setting to make the appropriate adjustment. Note that **Unit of Measurement** changes will be reflected in the **Online** software after **syncing** your **Mobile App**.
2. (**Android ONLY**) You can adjust **Syncing interval** for android devices so that your app will **auto-sync** when open every **1**, **5** or **15 minutes**, avoiding the need to manually sync your device

Watch this video to learn more.

0.2

Planning Crop Season

Online| Planning Season

Objective: How to prepare your Farm Core account for the upcoming season.

In this session you will learn:

- How to manage People and Operators
- How to manage Equipment
- How to manage Materials
- How to set up Farms and Fields

0.2.a

People

Online | Contacts
FARMER CORE ONBOARDING
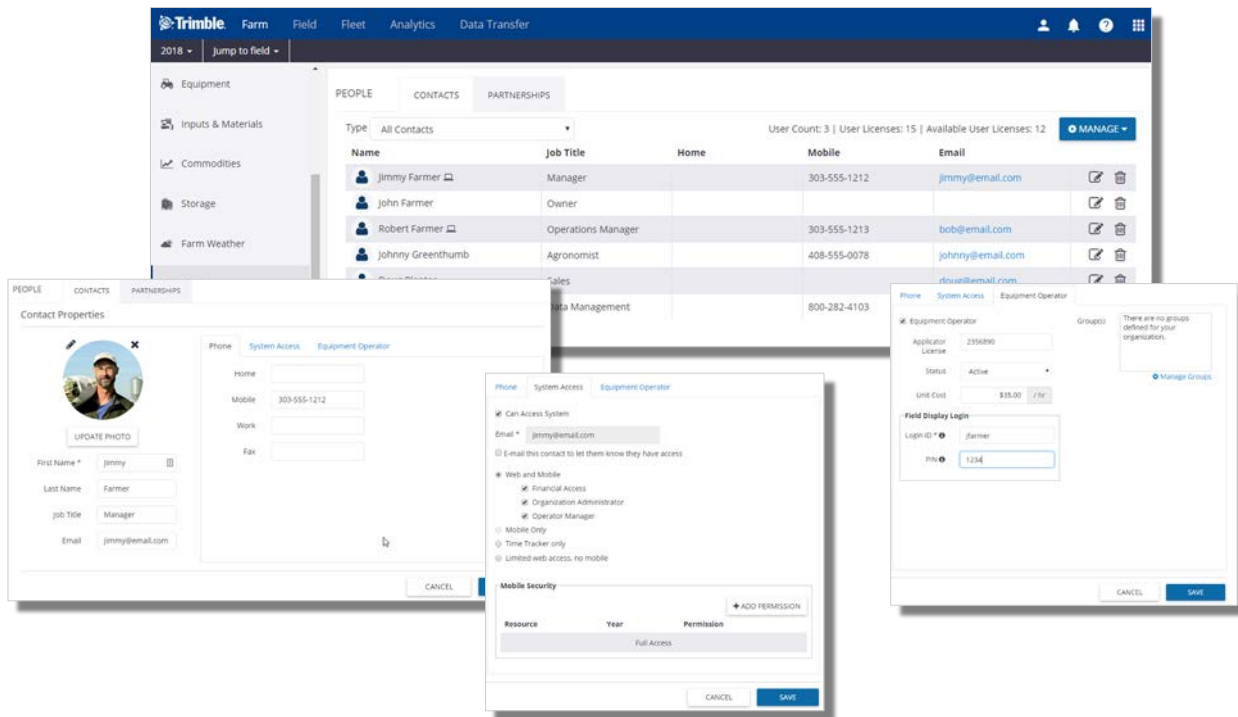
1. Click **Farm** tab > **People**
2. View the list of all contacts on the Contacts tab, or click the Edit button to edit
3. Click **Manage** > **+ Add Contact** to add a new contact.
4. Add the contact properties
5. Click **Save** to save basic contact information
6. Add **System Access**
   - Click the System Access tab to configure this contact as one of your login users
       - E-mail this contact to let them know they have access
       - the e-mail address in their Trimble Ag Software account must match the email used to invite them as a login user
   - Configure the level of access for **Web and Mobile** (with options for Financial Information, Organization Administrator, and Operator Manager), **Time Tracker only** (if using Time Tracker), or **Limited web access, no mobile**
7. Add **Equipment Operator** information
   - **Applicator License** number can be added, **Status** controlled (active/inactive), and **Unit Cost** can be assigned to this contact
   - Field Display **Login ID*** and **PIN** can also be configured for Trimble Displays utilizing operator logins

   ▶ Watch this video to learn more.

Online | Operators
FARMER CORE ONBOARDING

1. Operators are set up under Contact Properties
   a. Click **Farm** tab > **People** > **Contacts**
   b. Add or Edit a Contact
   c. Select the **Equipment Operator** tab, activate the Equipment Operator check box, and enter the Login ID
   d. Click **Save**
2. To review and manage your Operators, click **Fleet** tab > **Operators**

0.2.b

Equipment Data

Online| Planning Season: Equipment

Objective: To understand the various ways you can bring data from your equipment to Trimble Ag Software.

In this session you will learn:

- What type of data flows into and out of TAS online
  - API Connection
  - Trimble Display
  - Manual Import
- How to managing as-applied data through Equipment Activity
- How to use Manage Files to review data flowing in and out of Trimble Ag software
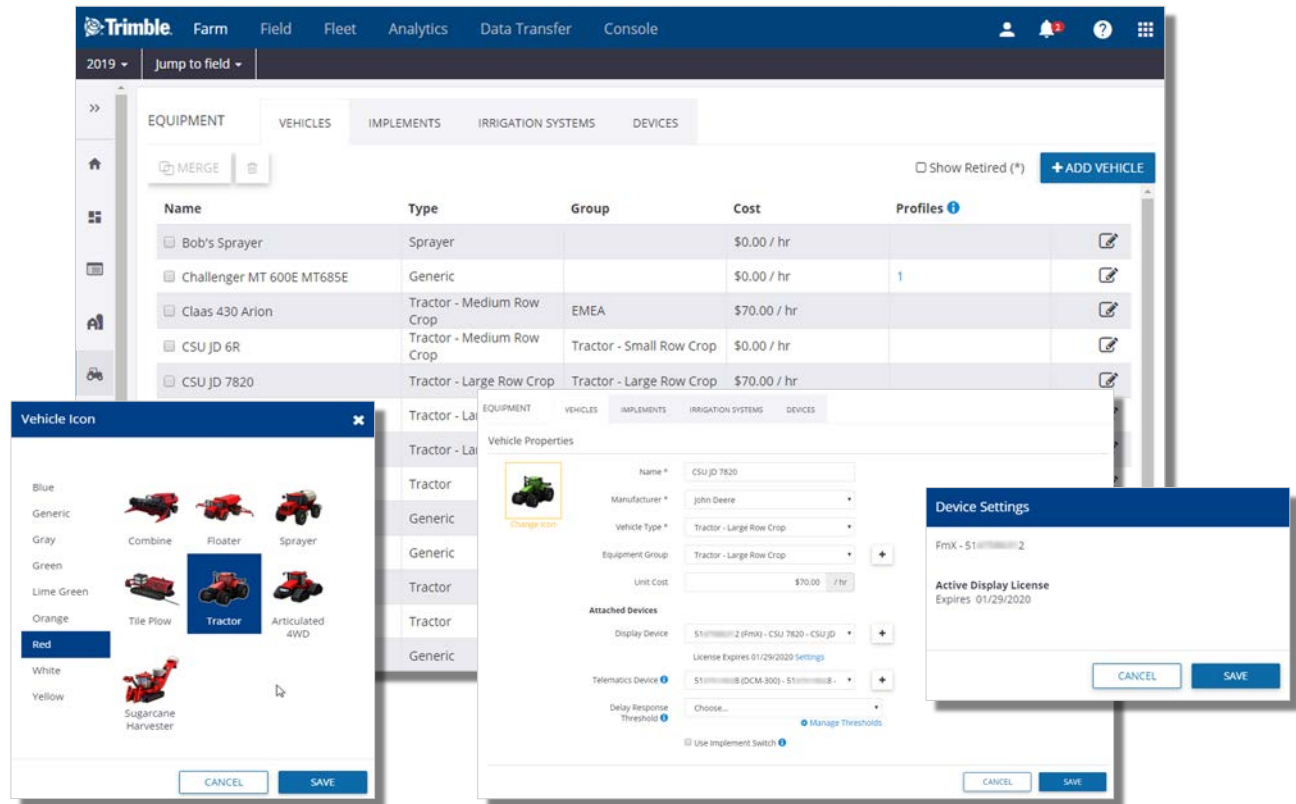
Online | Vehicles

1. From the **Farm** Menu, click **Equipment**
2. view existing vehicles on the **Vehicles** tab
3. click **Add Vehicle** to add a new vehicle
   a. For Vehicle Properties enter Name, Manufacturer, Vehicle Type (required properties)
      i. If using Groups, assign the Vehicle Group
      ii. enter the Unit Cost to track cost of use
4. Select the Display Device from the drop down menu if using Office Sync or Fleet
5. Select the Telematics Device from the drop down menu if using a DCM-300 modem for Traditional Fleet setup. (For more information on setting up Fleet Manager see the User Guide or FarmStream setup guide)
6. **Assign Vehicle License** to activate a wireless vehicle connection with a Trimble Display.
   a. Note: do not use Assign Vehicle License if setting up an API Connection - it is not needed for API Connections.
7. Optionally, click **Change Icon** to select a visual icon that correlates the the specific vehicle.
8. Click **Save** to save this vehicle
   a. Use the Edit button to edit the properties of any existing vehicles

▶ Watch this video to learn more.

Online | Modem Information
FARMER CORE ONBOARDING

When setting up a vehicle, the Attached Devices settings can vary depending on the modem that is being used with the vehicle display, and the features that are being utilized. For Farmer Core, select the Display Device serial number to activate a Display License to begin utilizing AutoSync or Office Sync features. The modem serial number should not be entered in the Telematics Device dropdown for this feature.

The table below is designed to help understand the supported displays and supported features for each modem type.

Modem	Supported Trimble Displays	Supported Syncing Features
Sierra Wireless RV55	GFX-350™ Display GFX-750™ Display FmX® Integrated Display TMX-2050™ Display CFX-750™ Display AG-372 Receiver	AutoSync™ (PIQ only) Office Sync
Sierra Wireless GX450	GFX-350™ Display GFX-750™ Display FmX® Integrated Display TMX-2050™ Display CFX-750™ Display	AutoSync™ (PIQ only) Office Sync
SNM941 Connected Site Gateway	FmX Integrated Display TMX-2050	AutoSync (PIQ only) Office Sync Vehicle Sync (FmX or FmX+ only)
DCM-300	FmX Integrated Display TMX-2050 CFX-750	AutoSync (PIQ only) Office Sync Vehicle Sync (FmX or FmX+ only)

Online | Implements
FARMER CORE ONBOARDING

1. From the **Farm** Menu, click **Equipment**
2. Select the **Implements** tab to view implements
3. Click **Add Implement** to add a new implement
   a. For Implement Properties enter Name (required properties)
      i. Enter the Unit Cost to track cost of use
   b. Implement profiles are created on your Trimble display as usual which are tied to the Implement properties created in Online. Multiple profiles can be associated with one implement name where applicable..
4. Click **Save** to save this vehicle
   a. Use the Edit button to edit the properties of any existing vehicles on the list.

▶ Watch this video to learn more.

Online | Auto Asset Detection
FARMER CORE ONBOARDING

When using Trimble's Auto Asset Detection Solution with Bluetooth Low Energy (BLE) beacons with AutoSync turned on, the Beacon IDs will synchronize to the Economic Vehicle that they are associated with in Online and synchronize out to other connected devices..

1. Open the Vehicles>Implement screen in Online
2. Active Beacon IDs for the Auto Asset devices will be listed in the Beacon column.

- Note: Beacons are setup on the display using the Auto Asset Detection App.

0.2.c

FarmStream Fleet

Online| FarmStream Fleet

Objective: Learn the fleet monitoring features

In this Session you will learn:

- How to monitor the fleet
  - Manage vehicles and groups
  - Configure alerts for machines
- How to use Data Management to review the flow of data in and out of Trimble Ag software

Online | Fleet Management
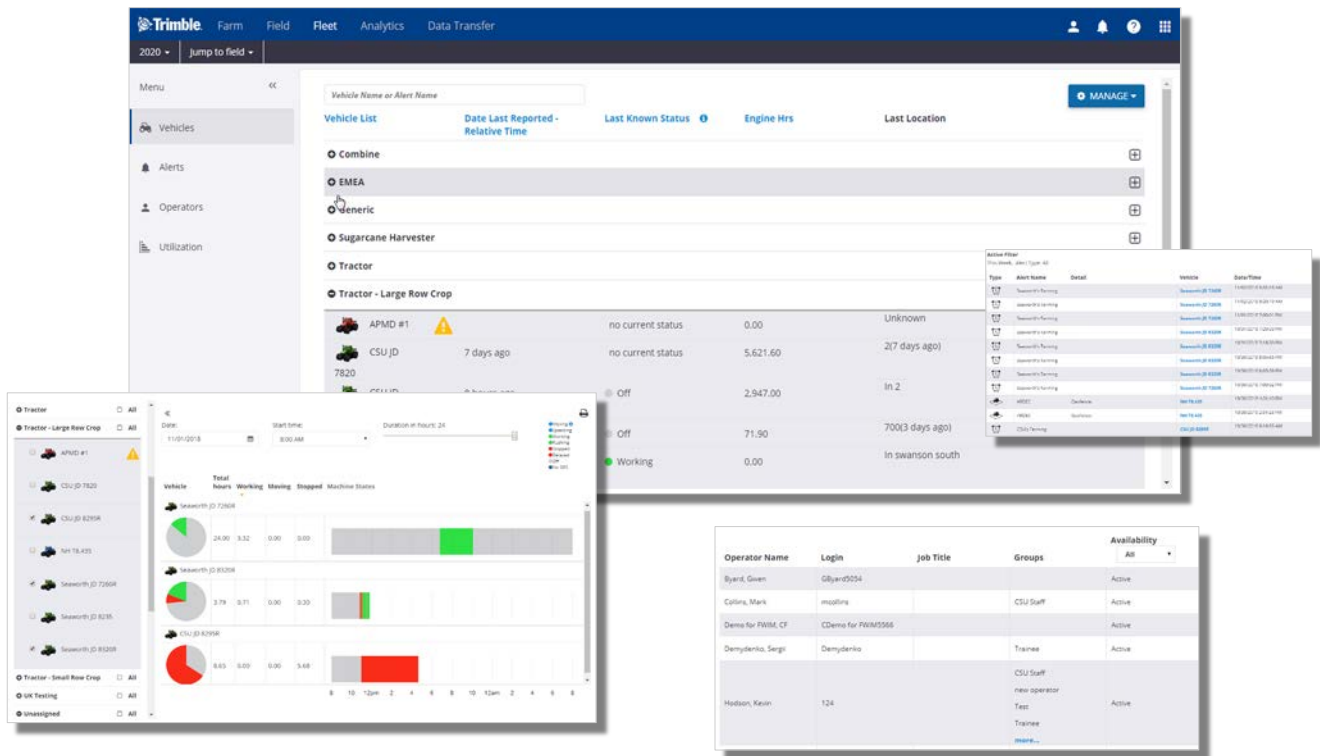
1. Click **Fleet** tab
   a. View and Manage the vehicles in your fleet
   b. Configure Alerts
   c. View the list of Operators (active and inactive)
   d. View the Utilization data for all or a subset of your vehicles over a selected 24 hour period

The Fleet website is used to manage farm operation data received from a range of vehicles and implements.

Use the Fleet website to manage your vehicles. Do this for your entire fleet. Online receives information from your vehicles. The back-end system processes the vehicle data into secure databases where you can access the data on demand.

Fleet has been enhanced to better integrate with other powerful Trimble Ag software services. You can now switch easily between Fleet pages and other Trimble Ag Software to access information including vehicle tracking, alerts, reporting, and productivity.

Fleet data transmission display setup is completed using the FarmStream plugin for FmX, FmX+ or the Productivity app with PIQ

Watch this video to learn more.

Online | Operators

FARMER CORE ONBOARDING
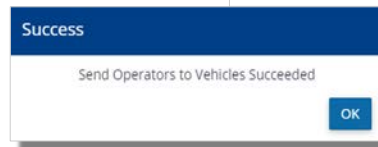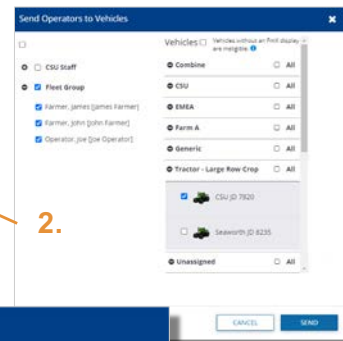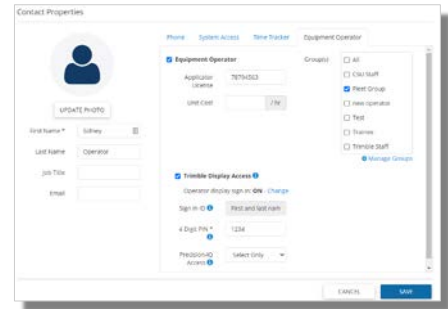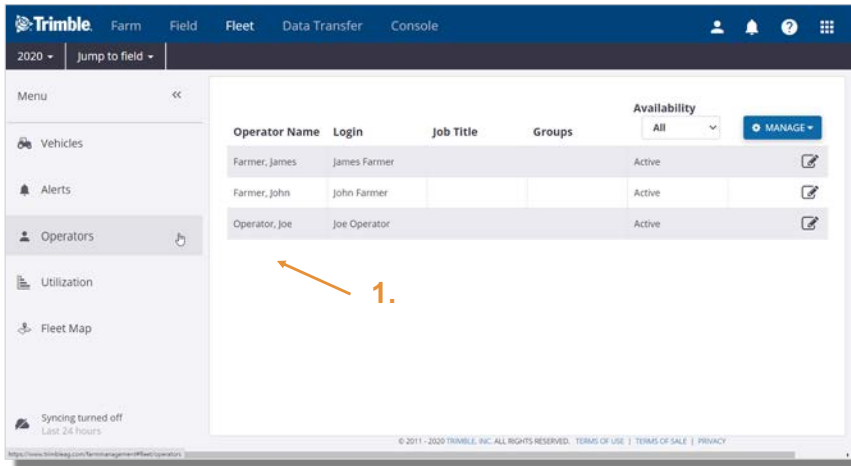
1. Add New Operators
    a. Select Manage > New Operator
    b. Configure Contact Properties
    c. Select the Equipment Operator tab to include Applicator License, assign to a Group (optional), and configure Trimble Display Access

1. Send To Vehicles: Send the list of operators to connected FmX displays
    a. Select Manage > Send to Vehicles
    b. Select the operator names
    c. Select the vehicles
    d. Click the Send button
        ➔ Please note this functionality is only for FmX displays:
            ◆ TMX displays utilize the Operators App to download the list of operators
            ◆ PIQ displays utilize AutoSync to sync the list of operators from Trimble Ag Software

Online | Vehicles and Groups
FARMER CORE ONBOARDING
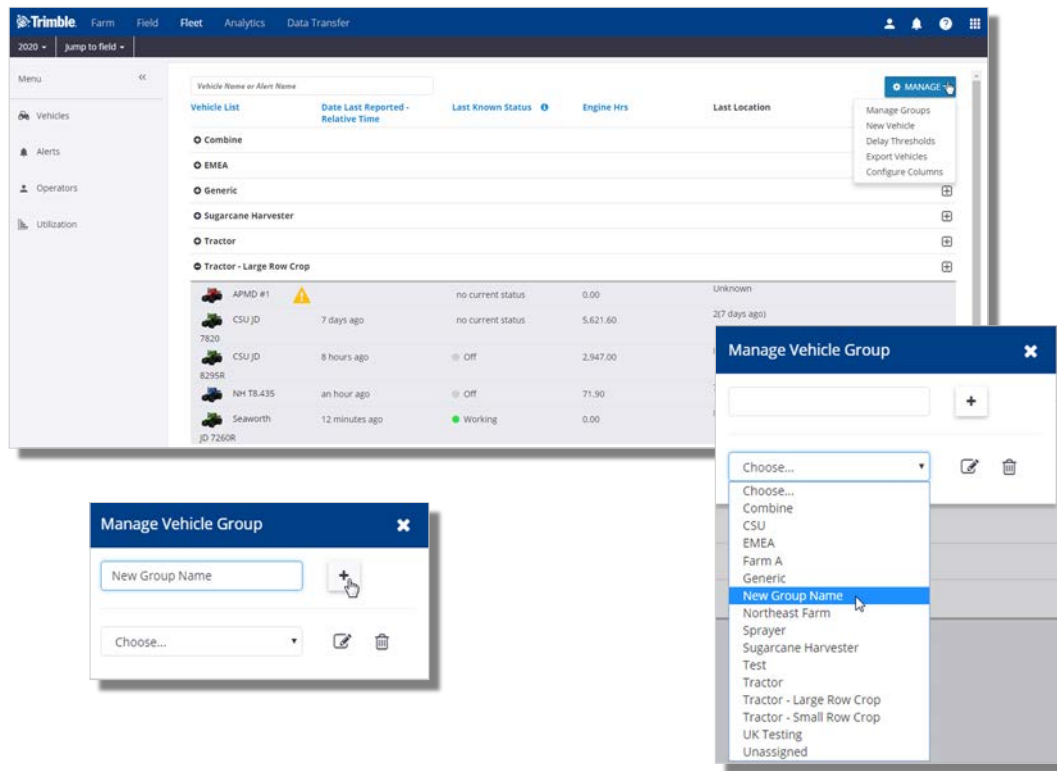
1. Click **Fleet** tab > **Vehicles**
   - View a list of Vehicles that have been added in your organization
2. Manage Vehicles by clicking ⚙ **MANANGE ▼**
   - **Manage Groups**
   - Add **New Vehicle**
   - View and Create New **Delay Thresholds**
   - **Export Vehicles** to a .csv file
   - **Configure Columns** that are displayed on the vehicle list
3. Manage vehicle groups by selecting **Manage** > **Manage Groups**
   - Type the desired **name** of the group in the entry window and click the **+ button**
   - The new group name will then become available in the drop-down menu
   - Groups can be **edited** or **deleted** from **Manage Vehicle Group**
   - Edit vehicle properties to assign a vehicle to the desired Vehicle Group

Online | Vehicle History and Sensors

FARMER CORE ONBOARDING

1. Select a specific vehicle on the list
   - View current status or Edit the vehicle from the top row of information
   - View **History** for a selected 24 hour period, select date and number of hours or options for the map view, or export the mapped location
   - Click **Sensors** tab to view sensor information that has been collected
     - Click the Sensor name to display the information in the graph
     - Select up to an 8 day time period
     - Export to .csv
     - The type of sensor data collected is controlled by the CAN information available and the Fleet method that is utilized

Online | Alerts
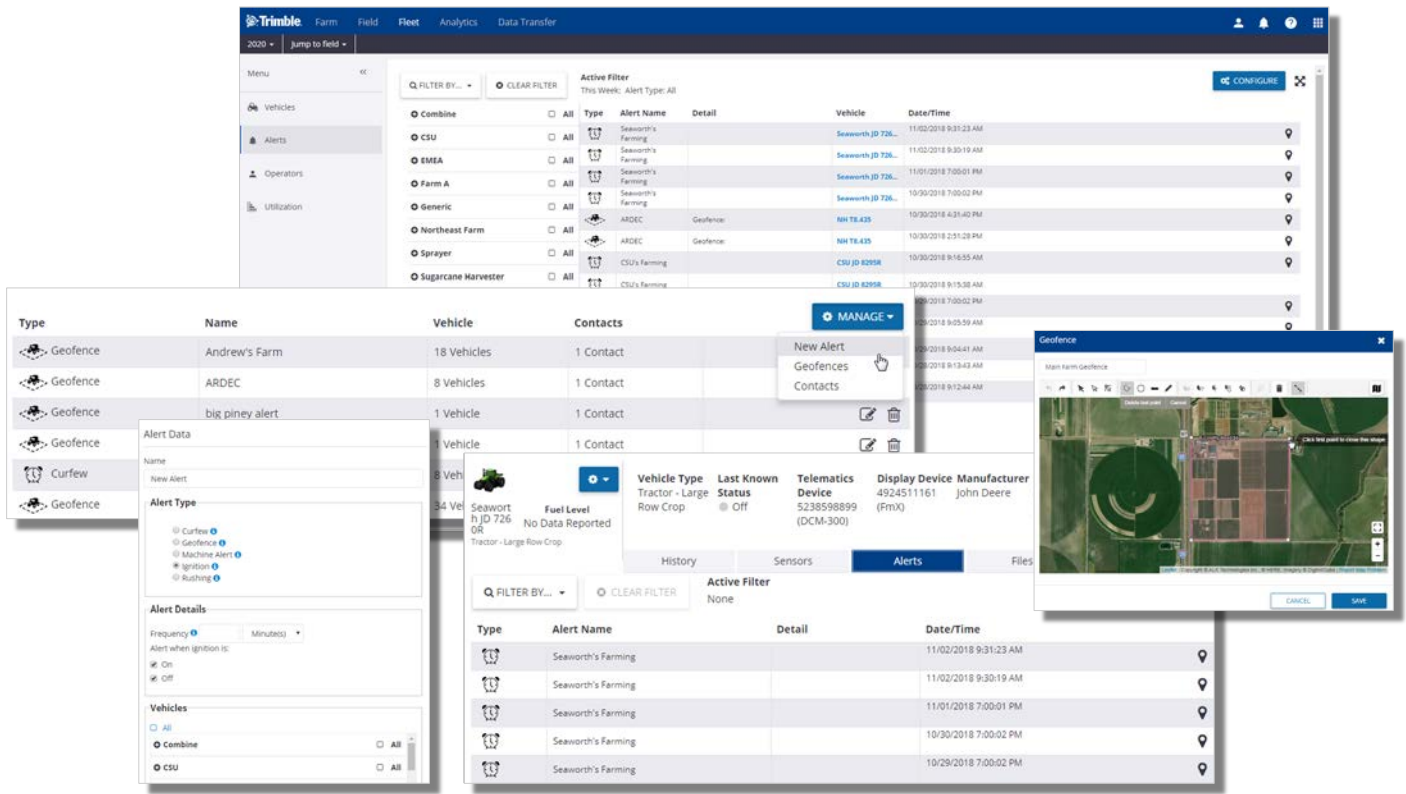
1. Click **Fleet** tab > **Alerts**
   - This page provides a list of all alerts or alerts for selected vehicles
2. Add or Edit Alerts, Geofences, and Contacts
   - Click **CONFIGURE** button
   - Click the Edit button to edit an existing alert
   - Click **MANAGE** > **New Alert** to add a new alert
     - Enter name, select Alert Type, configure Alert Details, assign to Vehicles, and assign Contacts to receive via email
   - Click **MANAGE** > **Geofences** to edit or create a geofence
     - used in Traditional Fleet setups only
   - Click **MANAGE** > **Contacts** to edit or create new contacts in the Contacts list for your organization
3. Click **Files** tab to view Files from Vehicle or To Vehicle
   - Click the file name to **download** a copy of the file
   - Click the **Upload** button under To Vehicle to directly upload a file to this vehicle
4. Available alert types vary based on the Fleet method that is utilized

Farmstream Fleet	Traditional Fleet
○ Machine Alerts ○ Rushing Alerts	○ Curfew Alerts ○ Geofence Alerts ○ Create Geofence ○ Ignition Alerts

Online | Utilization
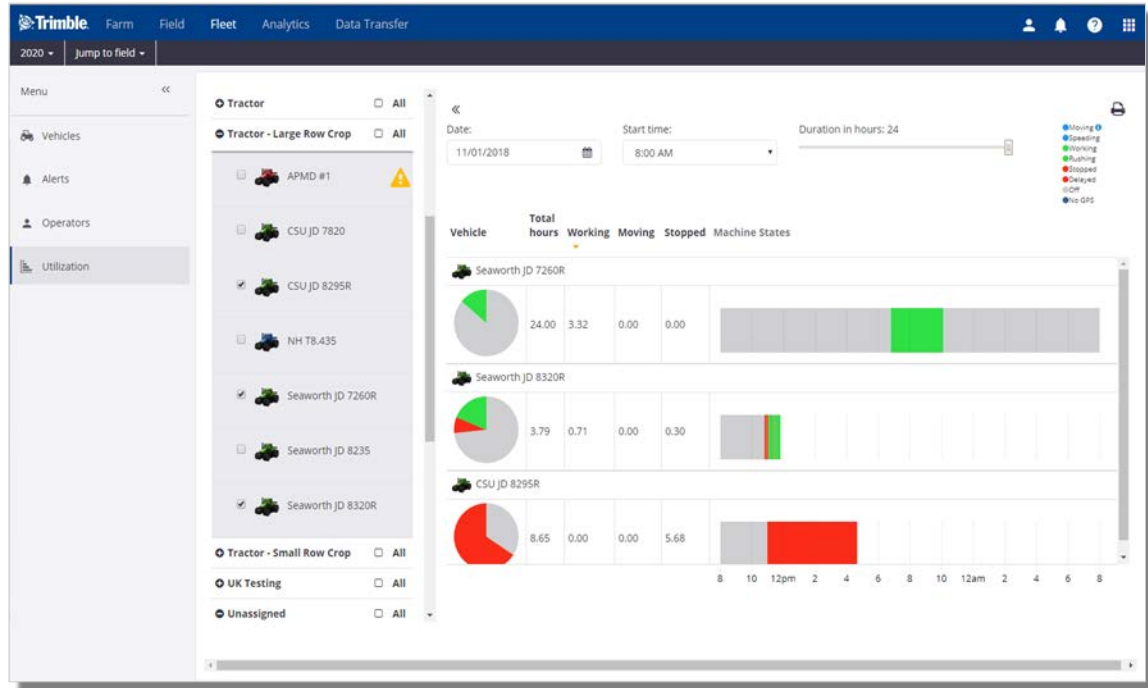
The Fleet Utilization reporting feature allows users to evaluate the performance of their machines over a chosen day. Vehicle status is displayed, showing states such as moving, speeding, working, rushing, stopped, delayed, off, and no GPS. The time in each state is calculated and displayed graphically.

1. Click **Fleet** tab > **Utilization**
   - Select the vehicles to include in the summary
   - Filter by Date, Start time, and the Duration in hours that you would like to view
   - hover your mouse pointer over an item in the graph for specific details
   - Click the Print icon to send the visible utilization data to the printer
2. Reported machine states are determined by the Fleet method that is utilized
   - FarmStream Fleet
     - Working, Moving, Stopped, Off, Speeding, Rushing, No GPS, Delayed, Pending
   - Traditional Fleet
     - Working, Moving, Stopped, Off, Speeding

0.2.d

Materials

Online | Planning Season Materials

Objective: How to add and manage your inputs and materials during the season

In this session you will learn how to:
- Add chemicals
- Add fertilizer
- Add purchases
- Add tank mix
- View materials report by:
    - Brand
    - Vendor
    - Material type
- Adding Materials in the Mobile App

Online | Adding Chemicals
FARMER CORE ONBOARDING

1. Click **Farm** tab > **Inputs & Materials** > **Chemicals** tab
2. Select **+ Add Chemical**
3. Click **Chemical Search**:
   - Leave Name and Manufacturer blank to search the entire database - click **More** button to see more
   - Type Name to find by name - type a minimum of 3 letters to search for matching names
   - Select Manufacturer to filter the list by manufacturer
   - Select the Chemical Name from the list
   - Supplement the details by listing the Active Ingredient
   - Indicate Purchased Units and Applied Units, along with Unit Cost and Default Target Rate
     - the gray boxes are populated by the system and cannot be manually entered or edited
     - you can add custom chemical names for use in your organization, or use the link to **Request a new chemical to be added to the list**
   - Add Purchase details with the ■ ■ ■ button to track cost and inventory levels
4. Click **Save**

▶ Watch this <u>video</u> to learn more.

Online | Adding Fertilizers
FARMER CORE ONBOARDING
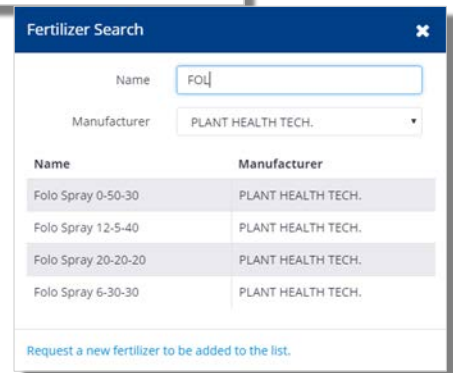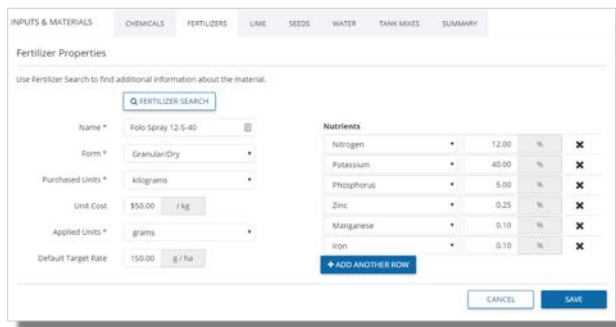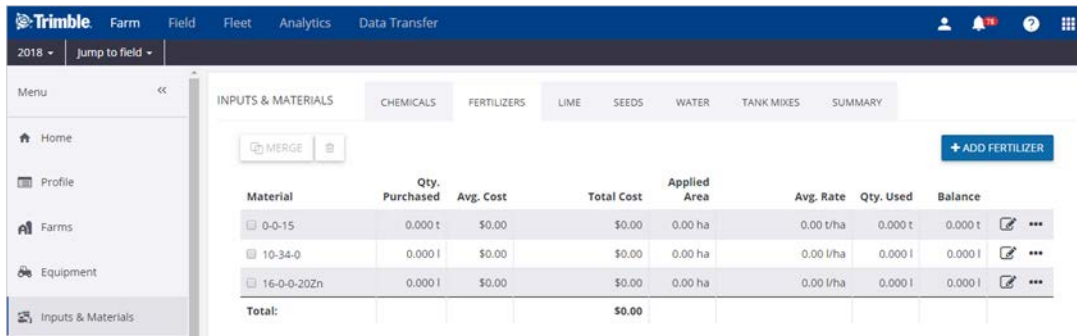
1. Click **Farm** tab > **Inputs & Materials** > **Fertilizers** tab
2. Select **+ Add Fertilizer**
3. Click **Fertilizer Search**:
   - Leave Name and Manufacturer blank to search the entire database - click **More** button to see more
   - Type Name to find by name - type a minimum of 3 letters to search for matching names
   - Select Manufacturer to filter the list by manufacturer
   - Select the Fertilizer Name from the list
   - Supplement the details by listing the Nutrients
   - Indicate Purchased Units and Applied Units, along with Unit Cost and Default Target Rate
     - you can add custom fertilizer names for use in your organization, or use the link to **Request a new fertilizer to be added to the list**
   - Add Purchase details with the ▪ ▪ ▪ button to track cost and inventory levels
4. Click **Save**

▶ Watch this video to learn more.

Online | Adding Purchases
FARMER CORE ONBOARDING

1. Click **Farm** tab > **Inputs & Materials**
2. Select the desired tab for the purchase to be entered (Chemicals, Fertilizers, Lime, or Seeds)
3. Click the ■ ■ ■ button on the material that was purchased
   - Click **+ New Purchase**
4. Enter the Purchase Details
5. Click the OK button to save the purchase

Optional:
   - use the **+ Carry Over** button to carry over purchase balances to the next year
   - **Update Task Costs** and **Update Material Unit Cost** can be used when changes for either need to be made and updated for existing applications in that growing season

▶ Watch this video to learn more.

Online | Adding Tank Mixes
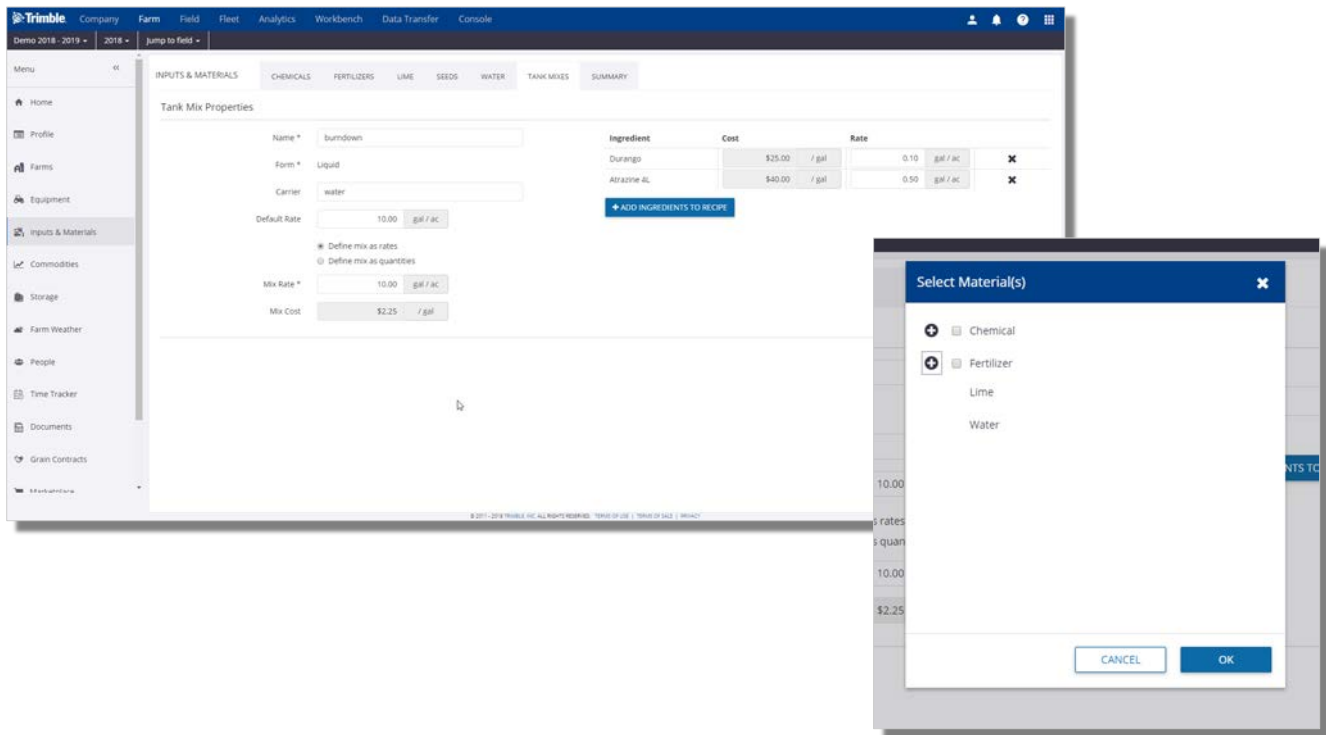
To be used to document custom **Tank Mixes**

1. Click **Farm** tab > **Inputs & Materials** > **Tank Mixes** tab
   - Select **+ Add Tank Mix**
   - Enter Name: **Burndown**
   - Select Form: **Liquid**
   - Carrier: **Water**
   - Default Rate: **10.00 gal/ac**
   - Check of **Define mix as rates**
   - Mix Rate: **10 gal/ac**
   - Ingredients
     - Select **Durango**
       - Cost: **$25.00/gal**
       - Rate: **0.10 gal/ac**
     - Select **Atrazine 4L**
       - Cost: **$40.00/gal**
       - Rate: **0.50 gal/ac**
   - Click **Save**

Online | Inputs and Materials Summary
FARMER CORE ONBOARDING
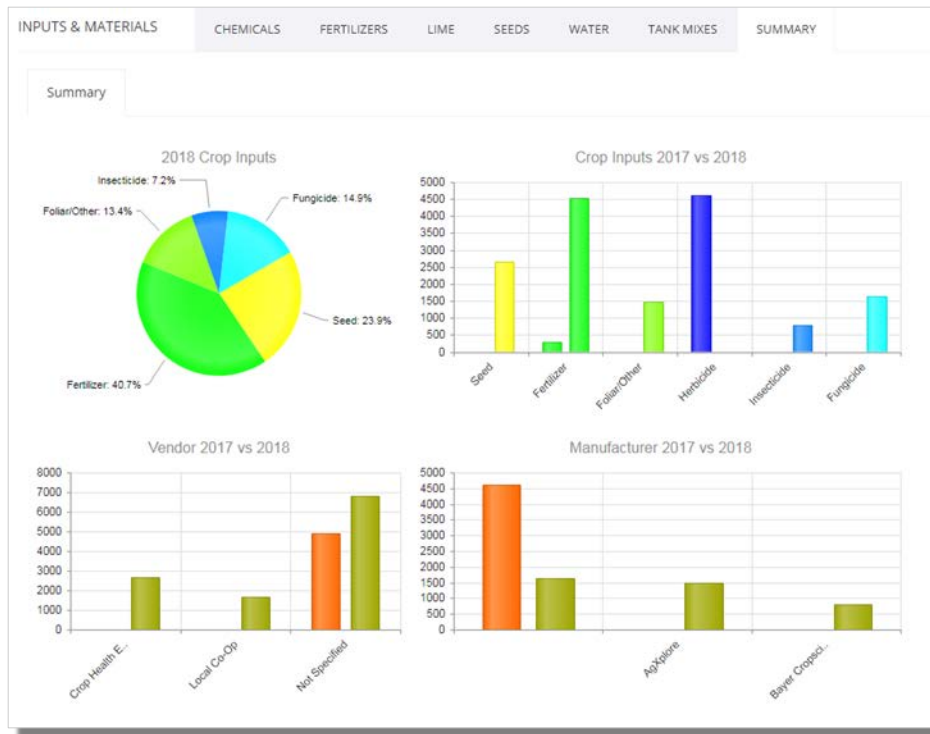
Click **Farm** tab > **Inputs & Materials > Summary**
- The distribution of the 2018 Crop Inputs are illustrated in the pie chart based on purchases that have been entered.
- Crop Inputs are compared to prior year in a Bar Chart
- Bar chart Vendor analysis with prior year provided
- Bar chart Manufacturer analysis with prior year provided

Mobile | Adding Purchases
FARMER CORE ONBOARDING
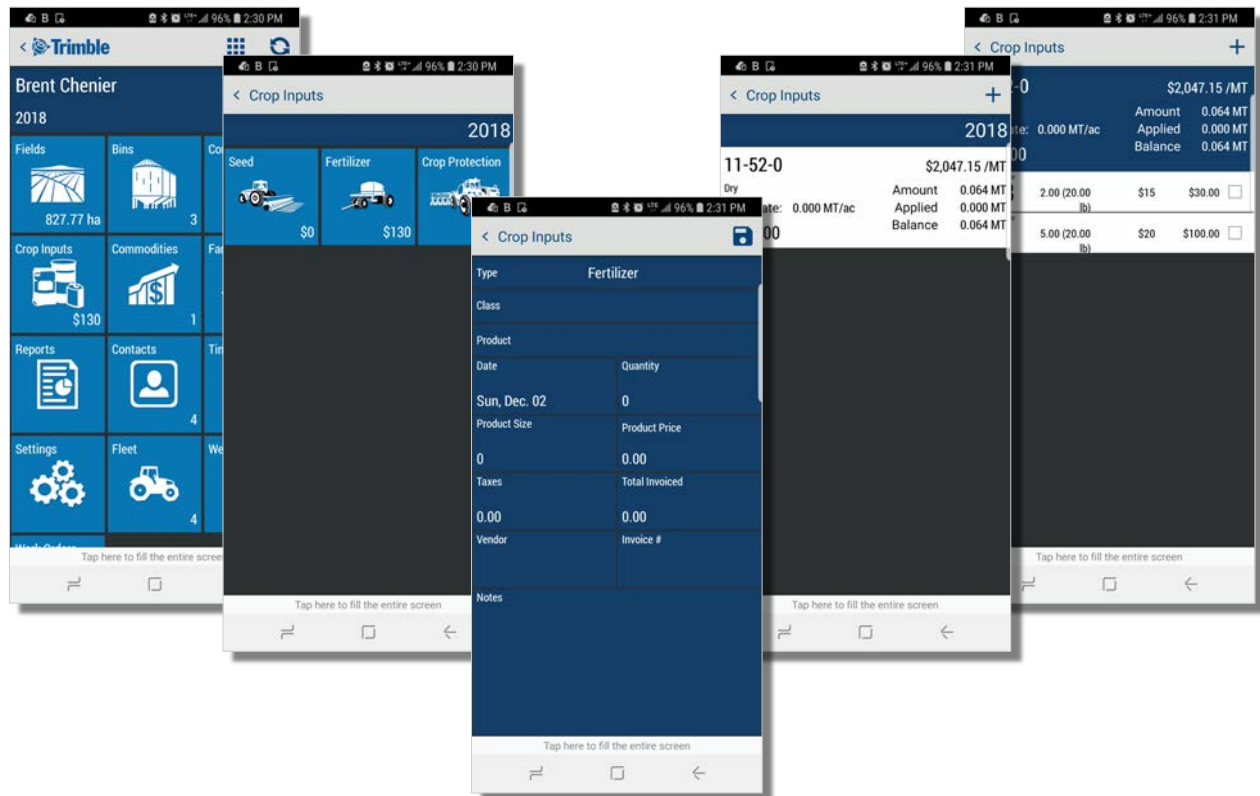
1. Tap **Crop Inputs** tile
2. Tap the desired input : **Fertilizer**
3. Tap the **+** symbol to add a new crop input **purchase**
   - Type: **Fertilizer**
   - Product: **11-52-0 (Dry) P**
   - Date: **Sun.Jan 28**
   - Quantity: **8**
   - Product Size: **1 MT**
   - Product Price: **634**
   - click **Save** icon
4. **Multiple** product purchases can be **logged** and **summarized** in mobile. All product purchases will become available online as soon as you **sync** your Trimble Ag mobile app.

Note that you cannot add a new **Material** to your overall material list from Mobile, this can only be done from the **Online** platform. Repeat this process as needed for any input purchase made.

0.2.e

Farm and Fields

Online | Planning Season Farm / Fields

Objectives: To understand the basic information required when planning for a new crop season.

In this session you will learn:

- Creating a Crop Plan
    - How to add potential Crop types
    - Navigating Trimble Ags Client/Farm/Field setup
        - How to add a new Client, Farm, Field and Boundary in Online and Mobile
        - The importance of field Boundaries in TAS
    - Managing multiple Crop Zones using "New Crop" feature
    - How to navigate the Farm Map
    - How to add a Target Yield

Online | Add a Crop and Crop Season
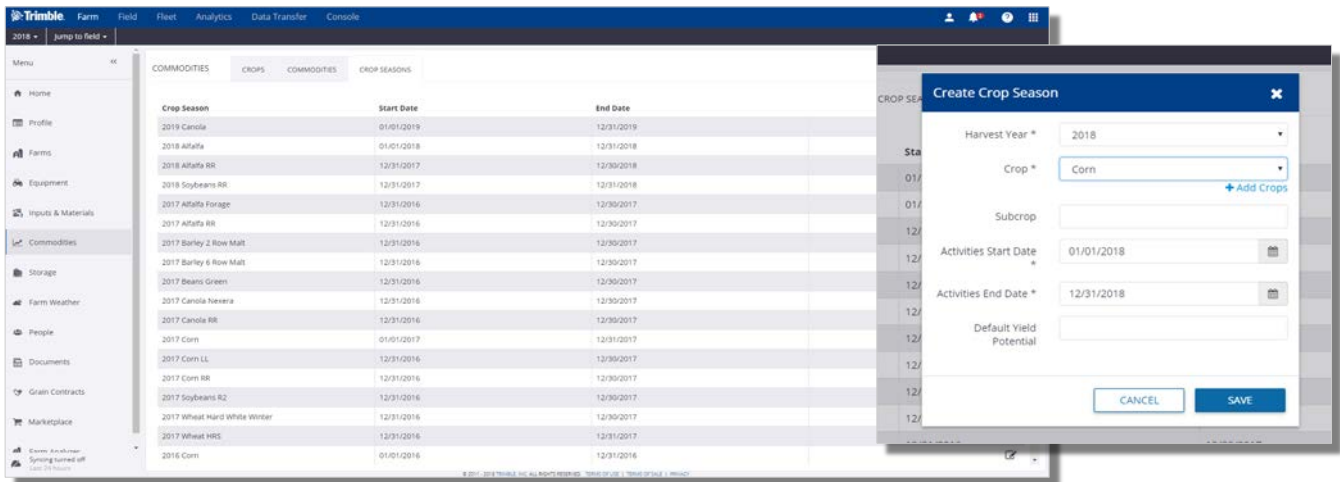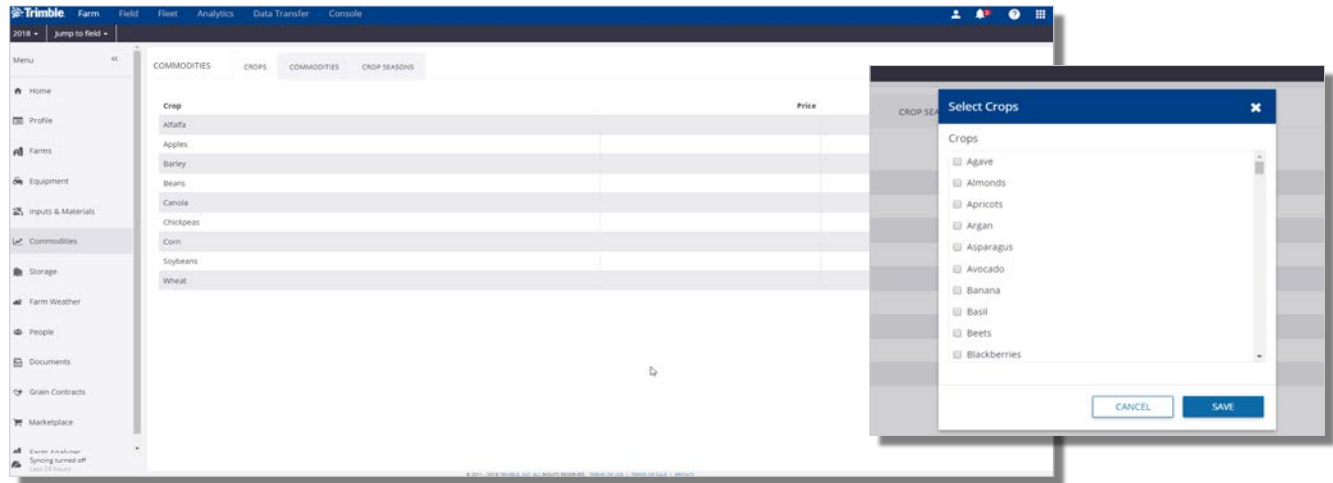
1. Click **Farm** > **Commodities** > **Crop**
   - Click **+ Add Crops**
   - **Check off** the appropriate crops
   - Click **Save**
2. Click Crop Season tab
   - Click **+ Add Crop Season**
   - Select **Harvest Year**
   - Select **Crop**
   - Select **Activity Start** and **End** date (if different from default)
   - Click **Save**

Watch this video to learn more.

Online | Adding Client, Farm, Field

FARMER CORE ONBOARDING
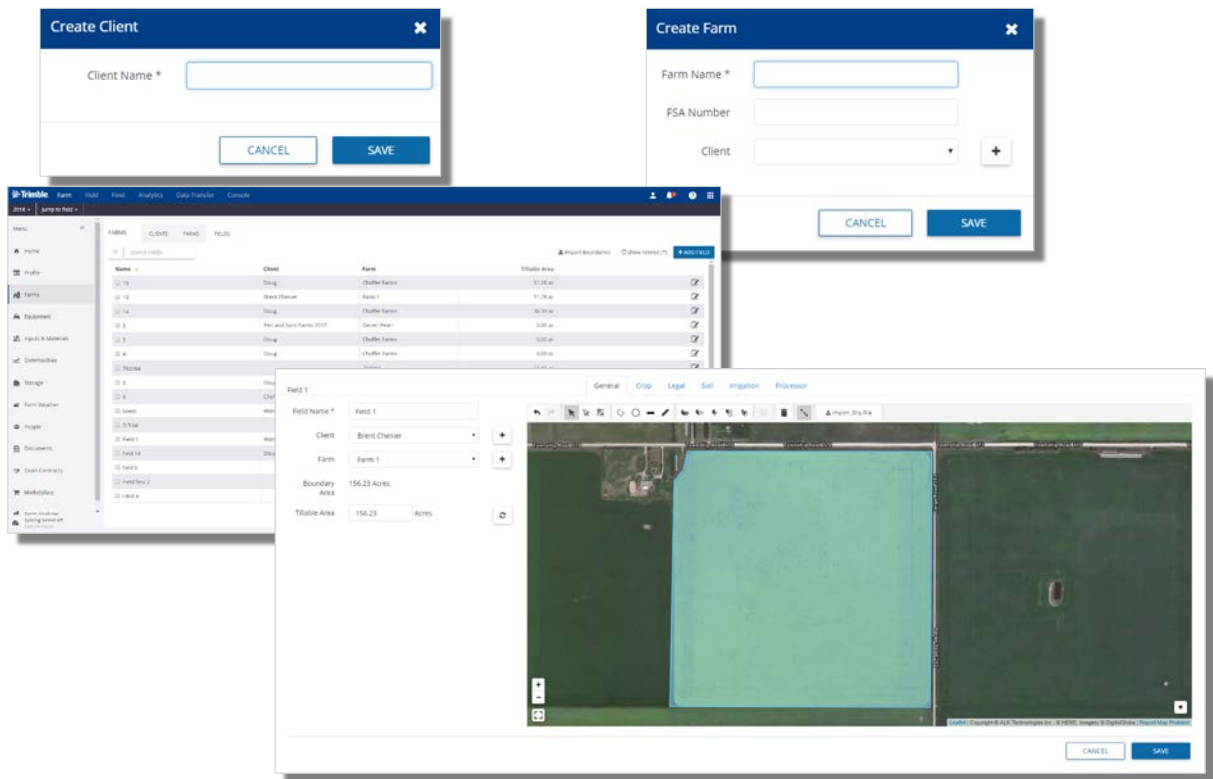
1. Click **Farm** > **Client** > **+Add Client**
   - Enter Client name > click **Save**
2. Click **Farm** > **Farms** > **+Add Farm**
   - Enter Farm name: **Farm A**
   - Enter FSA number(if applicable)
   - To place the **Farm** under a **Client**, choose a **Client** from the dropdown list > click **Save**
3. **Click Farm > Fields > + Add Field**

   - Enter **Field Name: Field 1**
   - Select proper **Client** and **Farm** from **dropdowns**
   - Use **GIS Tools** in mapping window to manually **draw** the **Boundary**

                          OR
   - click **Import .Shp File >** select the **.shp** file only **>** click **Open**
     - You can make further **edits** to the imported boundaries using the **GIS tools**.
   - click **Save**

Watch this <u>video</u> to learn more.

Online | Add Field and Boundary (Bulk)

FARMER CORE ONBOARDING

1. Click **Field** tab > **Field Profiler** > **Manage**
2. Select **Upload Boundary Files**
   - Select **.shp, .shx and .dbf** for all desired boundaries
     - click **Open**
   - Leave **Field** column at **default** (New Field)
   - Select **Farm Name** and **Field Name** attribute columns from Farm/Field Column **dropdown** menu to auto fill details
                         OR
   - Manually enter **Farm** and **Field** name
1. **Check** fields on left side
2. Click **Save Boundary Files**

▶ Watch this video to learn more.

Mobile | Add New Field and Boundary
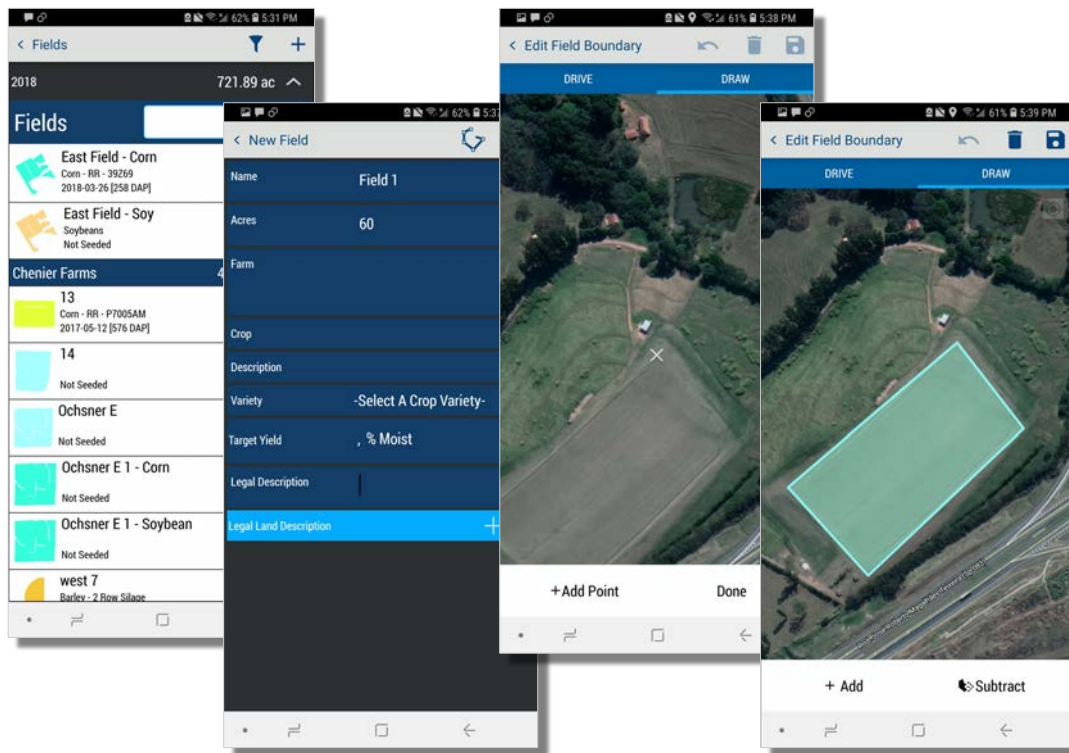
1. From the Farm screen, tap **Fields** >tap the **+** symbol to **create new**
2. Enter field name (required to create a boundary): **Field 1**
3. Enter estimated acres (required to create a boundary): **60**
4. Enter other details as needed
5. Tap the **Boundary (** **)**
6. Chose to:
   - **Drive Boundary**
     - tap **Start** and drive the boundary
     - tap **Done** to close the boundary
     - tap **Save** icon ( )
   - **Draw Boundary**
     - tap the **Draw** tab
     - tap **Start** and hover the white **X** overtop of a boundary corner to start > tap **+Add Point** to start boundary > repeat for all corners of the field
     - tap **Done** to close the boundary
     - tap **Save** icon ( )
7. tap **Save** icon ( ) to finish new field

Watch this video to learn more.

Online | Multiple Crops per Field

FARMER CORE ONBOARDING

Original Field (parent field)

New Crop Fields

1. From the **Field Overview**, click **Manage** > click **New Crop**
2. Enter new **Field Name** for each New Crop
3. Enter **Acres** for each New Crop
4. Click the **+** button to create multiple new crops at the same time (optional)
   - note that crop sequence numbers will not increase if you choose to do it this way. For Crop sequence number to increase, you need to create each new crop, 1 at a time.
5. Adjust **Crop Sequence** according to the order the Crops are grown.
   - i.e Corn = Crop Sequence 1, Soybeans = Crop Sequence 2, etc.
6. Click **Save Fields**

Please note that the new crop fields created will only be available for that calendar year. The field will reset to the single Parent field the next calendar year.

Online | Farm Map

FARMER CORE ONBOARDING
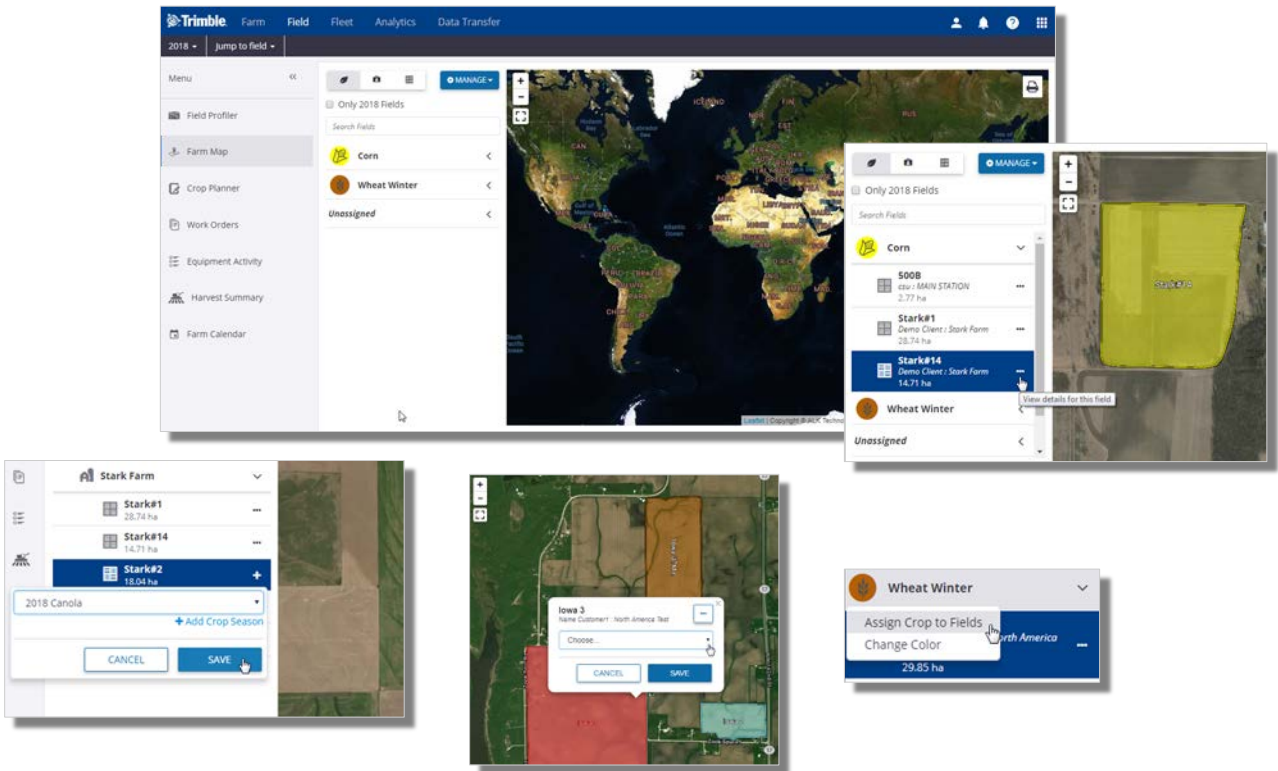
1. Click **Field** tab > **Farm Map**
   - Interact with your fields in a map view
   - Show fields grouped by Crop Season

   Show fields grouped by Client and Farm

   - Show Fields Only
2. From the Field level list, click on the ■ ■ ■ button to **View details for this field** in the Field Manager screen.
3. If the field shows a plus sign ＋ on the right, this means a crop has not been assigned to the field, click ＋ to assign a crop from the drop down menu, or click **+ Add Crop Season** to add a new crop season for selection - click **Save** to update the Crop Season.
   ○ Fields with the ＋ may have been imported from a vehicle display without a crop assignment, these fields *will not* appear in the Field Profiler until a Crop Season has been assigned.
4. With your farm boundaries visible in the map view, you can also click on the field boundary in the map to assign the Crop Season from the drop down menu.
   ○ Click on the Crop Season icon to **Change Color** for each crop in the map view, or to access the **Assign Crop to Fields** option to assign the selected crop to multiple fields in the map view.

   ▶ Watch this <u>video</u> to learn more.

Online | Crop Rotation Plan

FARMER CORE ONBOARDING

1. Click **Field** > **Crop Rotation Plan**
2. Configure how many Years Backward and Years Forward to work with
3. Click the plus sign in any box that needs information to be entered
   a. Use the Multi Select check box to activate selection of more than one box to fill in with the same crop information
   b. Select the desired boxes and then click Manage>Add/Edit Selected Record
   c. Fill in the Crop details using the Add New Crop window
4. If you're working with a perennial crop, select "Perennial" and define the number of years for that multi-year cycle
5. Use the Manage Option to Export to CSV to save or share the plan details.

Watch this video to learn more.

Online | Crop Rotation Plan

6. For planning a crop sequence for the same field, you can click on the **(+)** below the crop grid.

7. Now you can add the detail for that crop and pick the correct sequence in the drop down. The Crop Planner allows up to 10 crop sequences entry.

8. The system will ask you to select how you want to proceed. Select "***Replace old crop details with new information***" if you just want to add a crop sequence, but keep a single crop.

9. The new crop sequence will be displayed beside the previous drop under the same crop year.

10. If desired to split a field, you can select the option "***Add new information as separate crop split***" and click SAVE.

11. That will split the field into two cops and you can adjust the area for each split by clicking in the area in red. That will re-open the **Edit** crop window and you can adjust the area for each part of the field before click **SAVE**.

Watch this video to learn more.

0.3

AutoSync, Work Orders, and Prescriptions

0.3.a

AutoSync™ Feature

AutoSync| Summary

The AutoSync™ feature automatically syncs farm data across Trimble displays utilizing Precision-IQ software, eliminating the need to manually share data via USB. AutoSync exchanges guidance lines, field boundaries, client/farm/field names, landmarks, materials, implements, and operators. When the task is completed, task data will transfer from the displays to the online platform.

The AutoSync feature is included with Farmer Core software subscription. Display Connections are required for each connected Trimble display.

Data Type	Create	Edit	Delete
Guidance Lines	✓	✓	✓
Coverage Maps[1]	✓		
Client/Farm/Field Names	✓	✓	✓
Landmarks and Boundaries	✓	✓	✓
Operators	✓	✓	✓
Vehicle Profiles[2]	✓	✓	✓
Materials	✓	✓	✓
Implements	✓	✓	✓
Work Orders	✓	✓	✓
Bluetooth® Low Energy (BLE) beacons	✓		

[1]AutoSync only sends the coverage map data from the display to Trimble Ag Software. It does not share the coverage map data to other Precision-IQ displays that are connected with AutoSync.

[2]Vehicle profiles are created on the display and saved automatically within Trimble Ag Software during the AutoSync process. If the display is accidentally damaged or lost, AutoSync can restore all the vehicle settings to a new Trimble display.

AutoSync| Requirements and Setup Steps

FARMER CORE ONBOARDING

Objectives: In this session you will learn how to setup AutoSync.

AutoSync Requirements

- ○ PiQ-enabled display (*Note*: FmX, FmX+, and CFX-750 Office Sync users will continue to have access to the same Office Sync features. AutoSync is not supported on non-PIQ displays.)
- ○ Wireless cellular connectivity for display
- ○ AutoSync-enabled firmware
  - ○ TMX-2050™ display: Precision-IQ firmware version 6.60
  - ○ GFX-750™ display: Precision-IQ firmware version 2.60
  - ○ GFX-350™ display: Precision-IQ firmware version 1.60
- ○ Trimble Ag Software account and Display Connection Licenses (Farmer Core or Farmer Pro)

### AutoSync Setup Steps

1. Setup online account and vehicles (*see Core guide Session 2.b*)
2. Clean up data, backup and update firmware on the displays
3. Connect display to internet (modem or Wi-Fi)
4. Turn on AutoSync in Precision-IQ settings
5. Use the AutoSync Wizard to walk through the initial sync
   a. The display run screen will be locked during the sync process

Watch this video to learn more.

# AutoSync | Step 1: Setup Vehicles in Online

FARMER CORE ONBOARDING
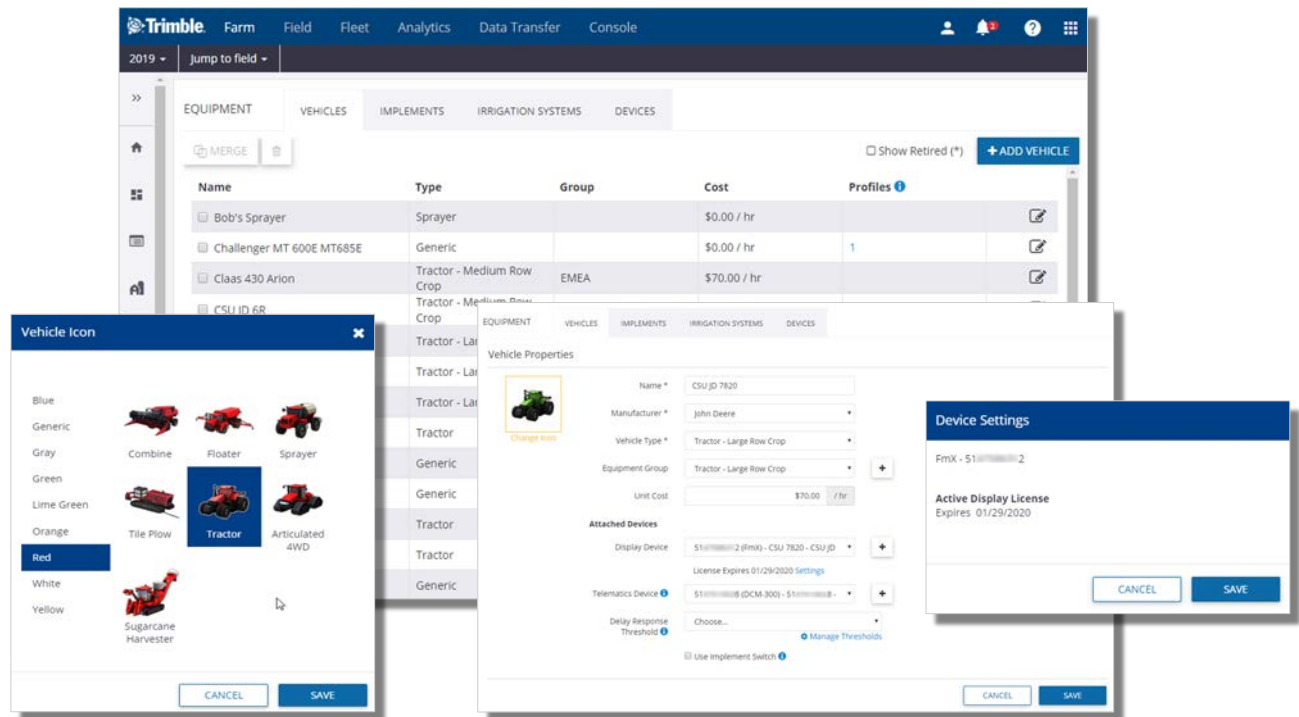
1. From the **Farm** Menu, click **Equipment**
2. view existing vehicles on the **Vehicles** tab
3. click **Add Vehicle** to add a new vehicle
   a. For Vehicle Properties enter Name, Manufacturer, Vehicle Type (required properties)
      i. If using Groups, assign the Vehicle Group
      ii. enter the Unit Cost to track cost of use
4. Select the Display Device from the drop down menu if using Office Sync or Fleet
5. **Assign Vehicle License** to activate a wireless vehicle connection with a Trimble Display.
   a. This is a critical step where the link the between the display and online vehicle is established.

6. Optionally, click **Change Icon** to select a visual icon that correlates the the specific vehicle.
7. Click **Save** to save this vehicle
   a. Use the Edit button to edit the properties of any existing vehicles

Watch this video to learn more.

AutoSync | Step 2: Cleanup, Backup, and Update

Cleanup

Backup

Firmware Update
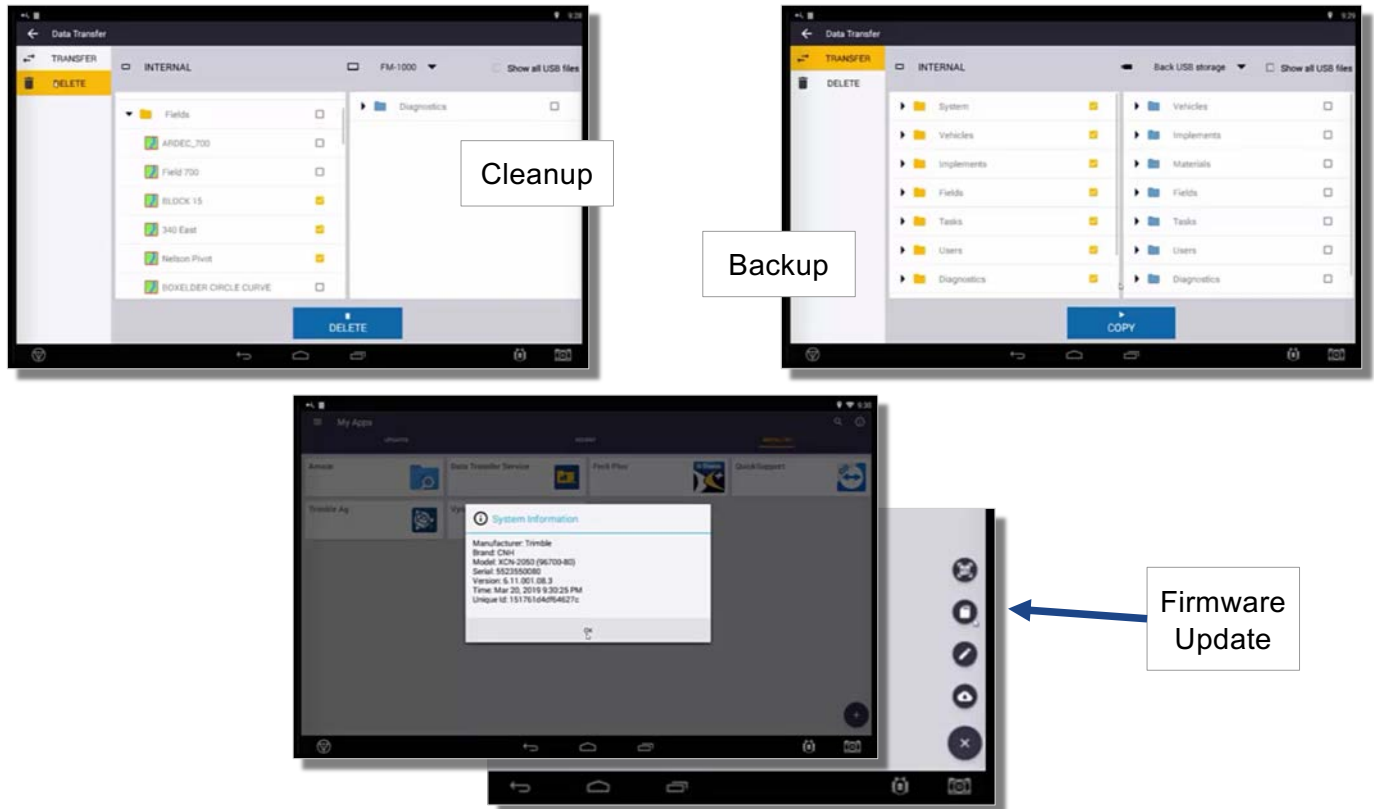
1. Open **PIQ** > goto **Field Tab** > Review details
2. To **Cleanup** data
   a. Go to **Data Transfer** > select a category > **checkoff** unwanted data > click **Delete**
3. To **Backup**
   a. Select **Directories** you wish to Backup
   b. Select your **USB** drive on the right hand side
   c. Select **Copy**
4. Update **Firmware**
   a. Go to **home screen** > go to **App Central** > Check existing version by click the **Information** tab in the upper right corner
   b. To **update,** click the **+** in the bottom right corner > go to **Disk** icon > navigate to **USB** drive that has the update on it > select that **firmware**.

Note: Minimum Recommended Firmware for each display type
TMX-2050 version 6.50 or higher
GFX-750 version 2.50 or higher
GFX-350 version 1.50 or higher

AutoSync | Step 3: Connect Display to Internet
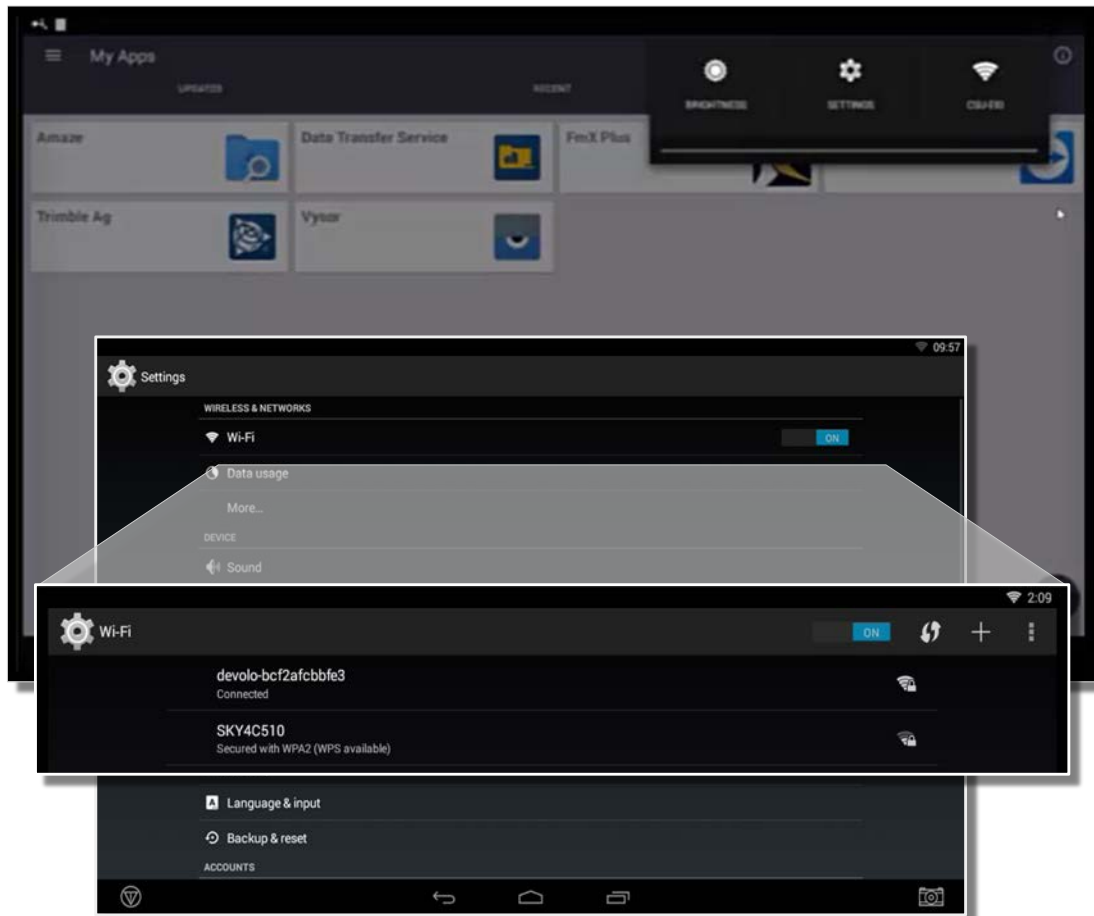
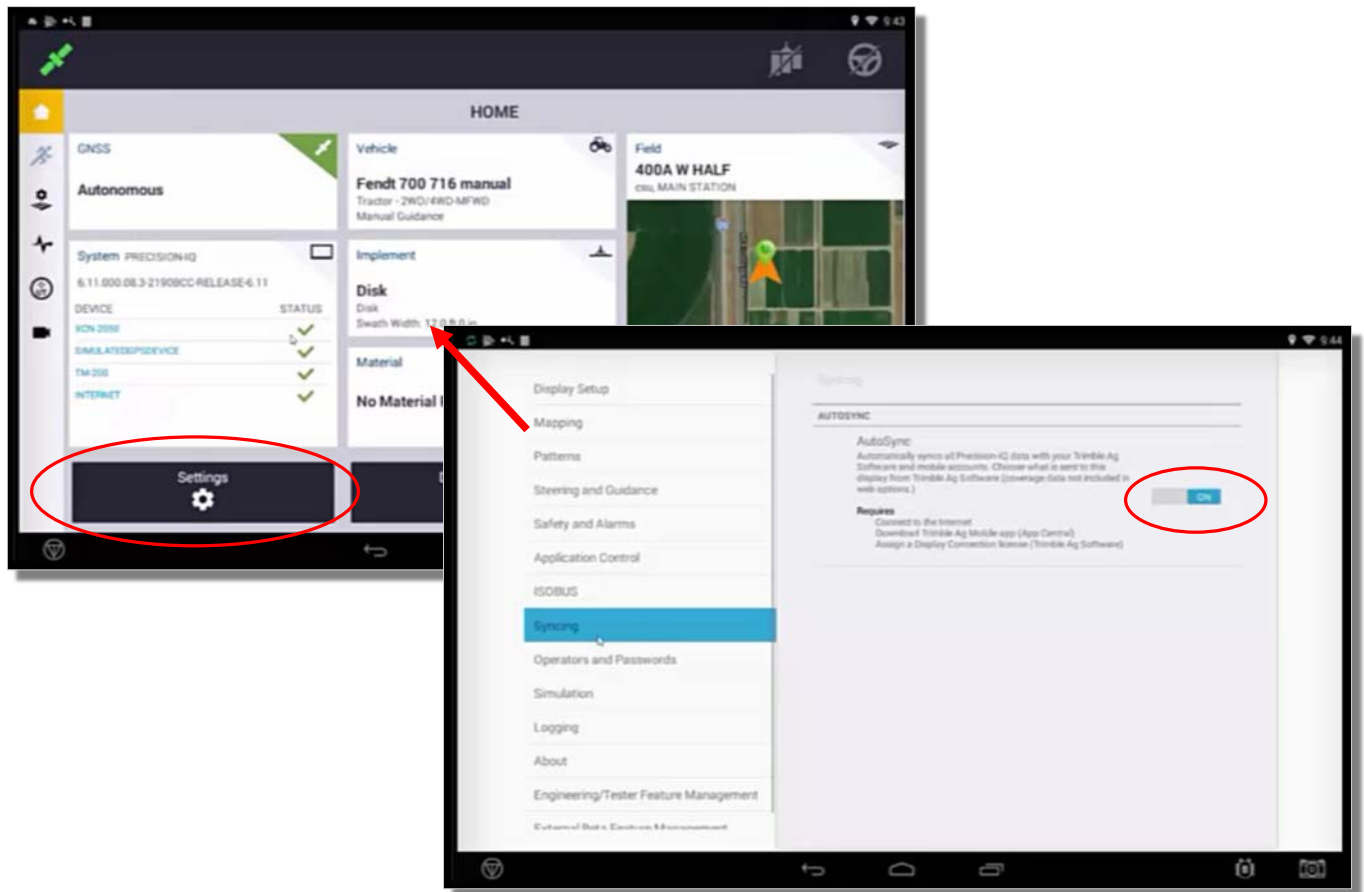1. Open the TMX or GFX display Settings.
2. Connect the display to the internet via cellular modem or Wi-Fi.

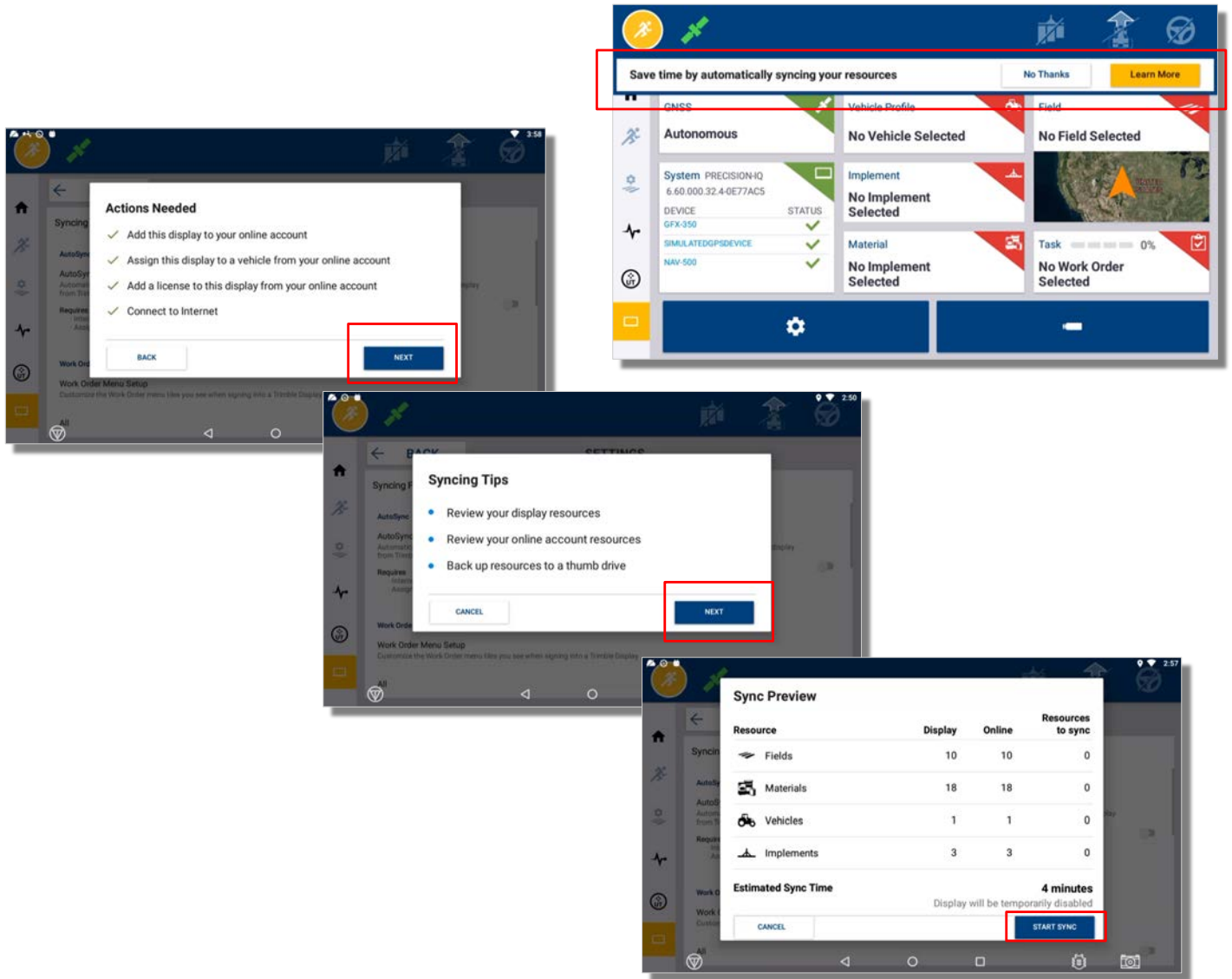# AutoSync | Step 4: Enable AutoSync in PIQ

1. Launch **Precision-IQ**
2. Go to **PIQ** > **Settings** > Syncing > **turn on** AutoSync

AutoSync | Step 5: AutoSync Wizard

FARMER CORE ONBOARDING

1. **The AutoSync Wizard will launch as soon as AutoSync is turned on in PIQ settings**
2. When the Actions Needed shows all green check marks, click Next
3. Review the Syncing Tips, then click Next
4. Review the Sync Preview
   a. Sync Preview provides a count of Resources on the Display and Online with the number of Resources to sync listed
   b. Estimated Sync Time is shown, and should reflect a conservative estimate
5. Click Start Sync to begin the sync process or Cancel to postpone until a later time
   a. The display will be temporarily disabled during the sync process
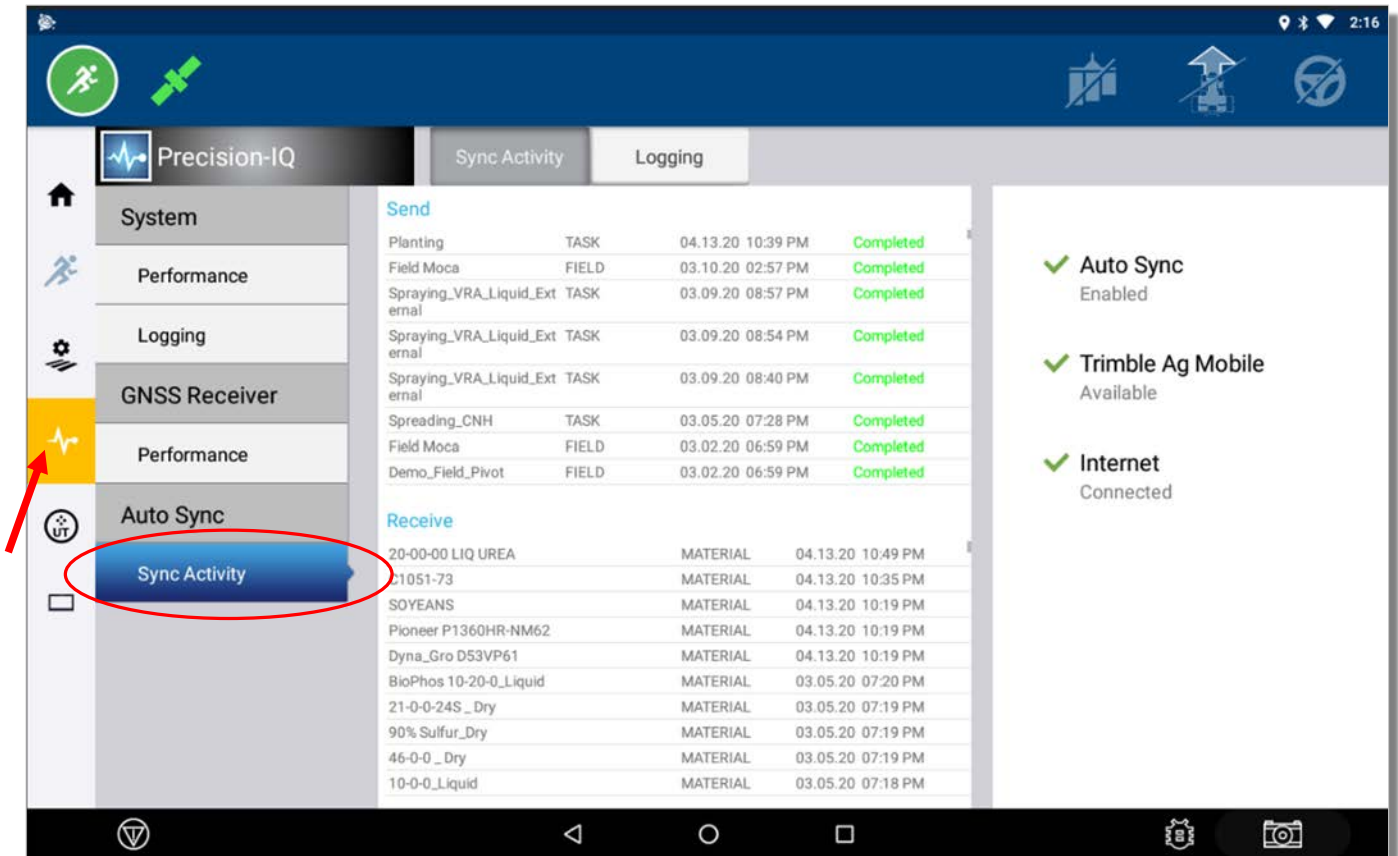
AutoSync | Sync Process
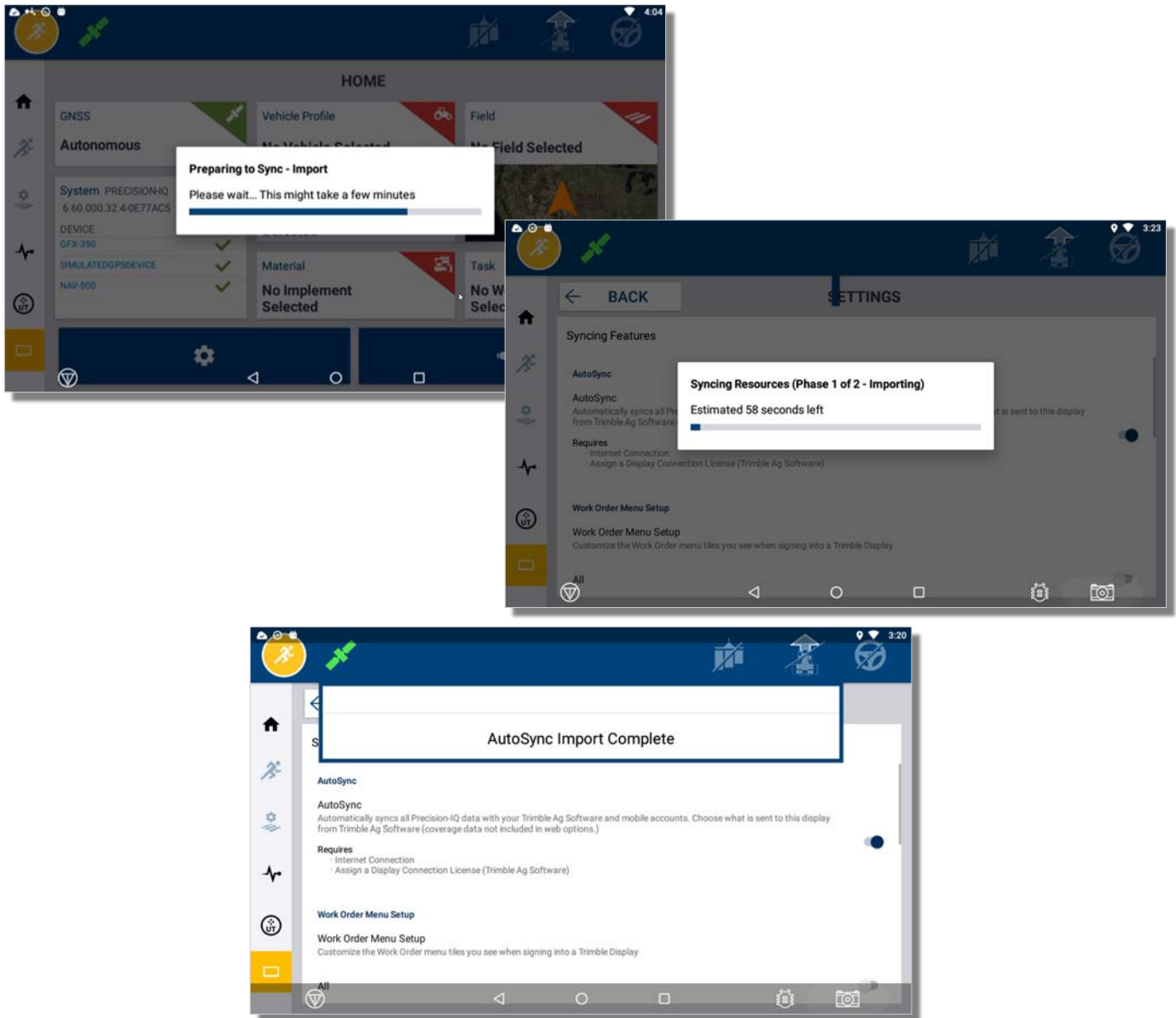
Monitoring the Sync Process
1. The Preparing to Sync - Import window will appear with a status bar
2. The Syncing Resources window will display with a status bar and estimated time left
3. The AutoSync Import Complete confirmation message will appear when finished.

AutoSync | Monitor Synchronization in PIQ

FARMER CORE ONBOARDING

1. To monitor or view Sync Activity click the Diagnostics option in PIQ
2. Select the Sync Activity option
3. View Send and Receive activity on the Sync Activity tab

AutoSync | AutoSync Service App in PIQ

Information Displayed in AutoSync Service App	
• Vehicle Name	• AutoSync enabled status
• Display serial number	• Fields synced area count
• Last Sync date and time + relative time (5 minutes ago)	• Fleet vehicle sync count
• Organization Name	• Work Orders count - any synced that are dated 3 months before or 3 months after current date
• Organization ID	• Contacts synced count

The AutoSync Service App is available in the installed apps area if you need to review the sync information or review the Sync Settings.

1. Open the AutoSync Service App
2. Click on the Settings button to view or make changes to the Sync Settings
3. To manually initiate a Sync, click the Sync Now button

Set up | Check the Unit System
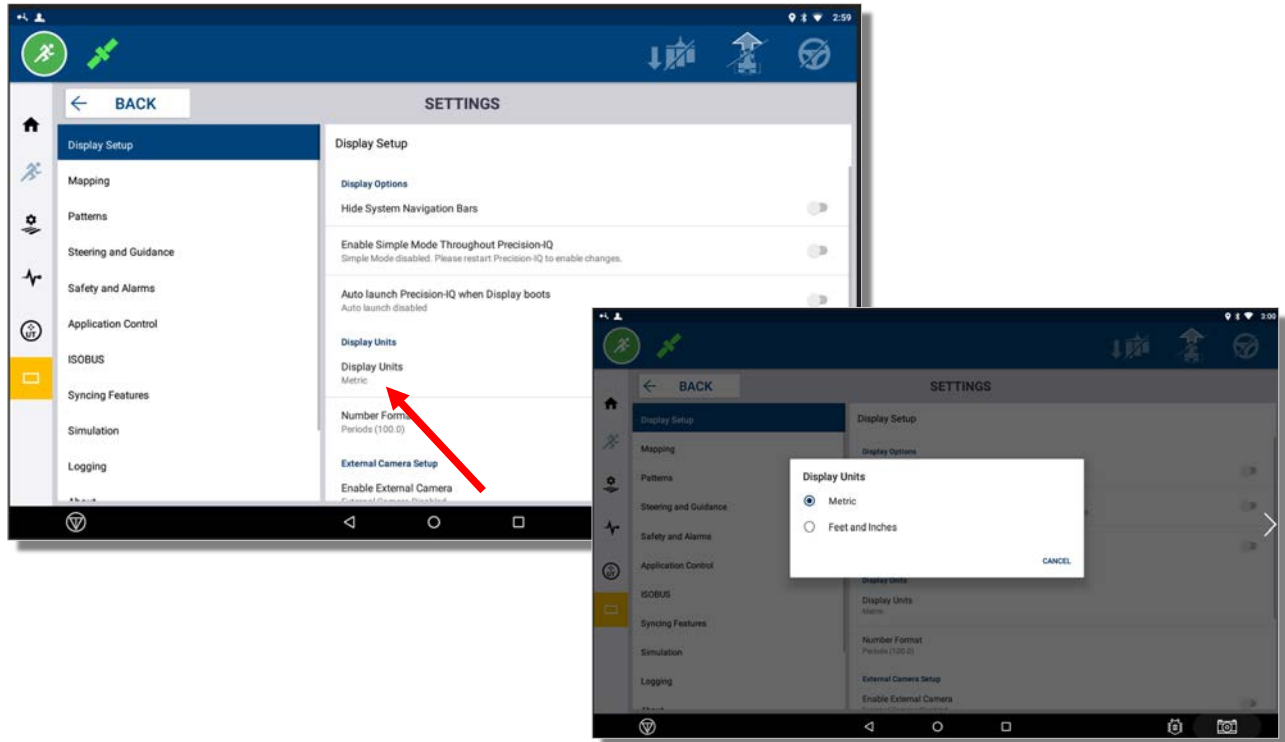
1. Open **PIQ** > goto **Settings Button (Engine)**
2. Click in **Settings**
3. Look for **Display Units**
4. Make sure your display unit matches with the Online unit system defined
5. Modify it if needed

Set up | Materials Properties

When using materials with AutoSync be sure to fill in the information on the Controller tab. This communicates additional information relevant to Precision-IQ displays. Any Chemicals, Fertilizers, Seeds, or Tank Mixes will need these details included.

1. Click in **Inputs & Materials**
2. Select the material tab (Chemicals, Fertilizers, Seeds, or Tank Mixes)
3. Select Edit Material
4. Click on the Controller tab and then enter the information

Note: If no value is entered for minimum rate, the system will default to zero.

AutoSync | Device Setup Online

After turning on AutoSync in PIQ, you are then able to view and make adjustments to each connected device's settings (note that all resources are required to sync when using Work Orders with AutoSync.

1. From the **Farm** Menu, click **Equipment**
2. Select the **Devices** tab
3. Click Manage>Settings
4. The checkmark to Automatically sync field data between Trimble Ag web, mobile, and this display (Precision-IQ) will control whether AutoSync is on or off..
5. Choose what's automatically synced between your Precision-IQ displays and Online Software.
   - Note that all items must sync and cannot be unselected if Work Orders is turned on.
   - Device Settings can also be configured in the Vehicle properties window by clicking the Settings link..

Set up | Operator Sign In

FARMER CORE ONBOARDING
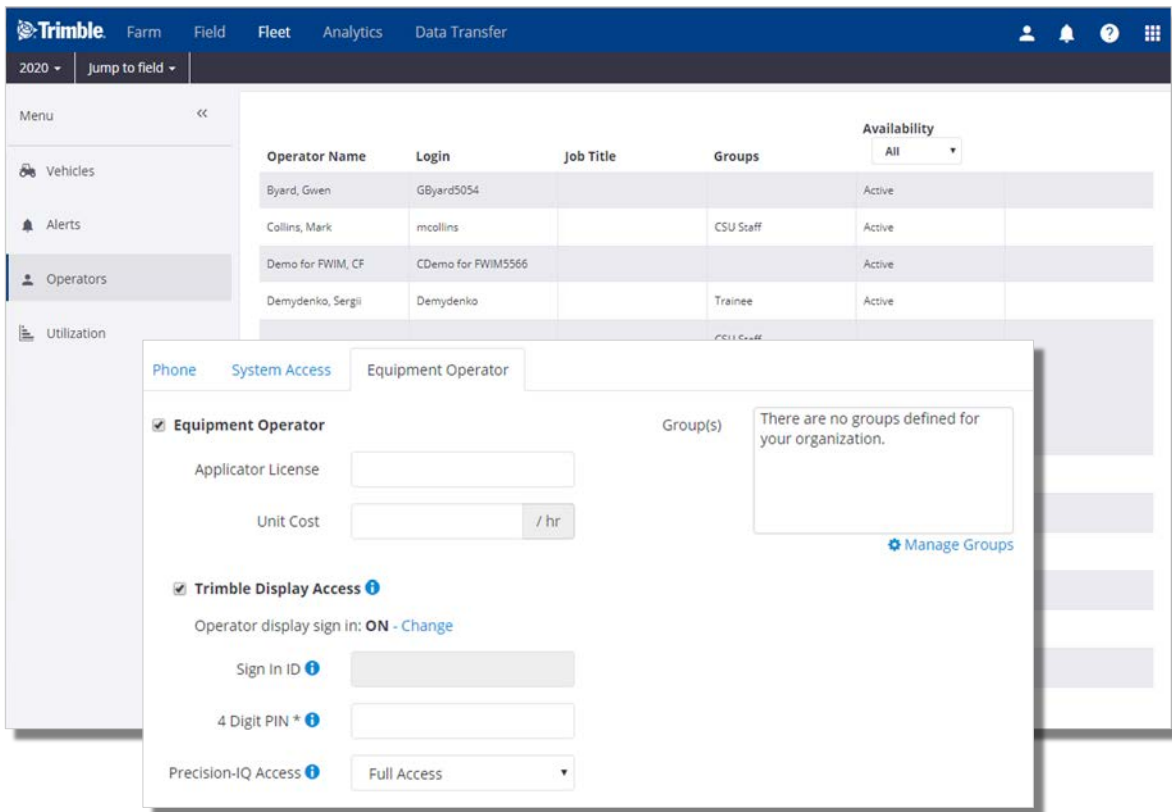
1. Click the Change link next to Operator display sign in, to turn on. (this is a global setting that affects all connected PIQ displays)
2. Operators are set up under Contact Properties
    a. Click **Farm** tab > **People** > **Contacts**
    b. Add or Edit a Contact
    c. Select the **Equipment Operator** tab, activate the Equipment Operator check box, and enter the Login ID
    d. Define **Trimble Display Access** level
    e. Click on **Precision IQ Access** drop down:
        i. Full Access > Operator can edit and change any information in the display including Work Orders tasks
        ii. Select Only > Operator is in the View Mode. Cannot edit or make any change in the display.
    f. Click **Save**

Please Note: Displays will need to connect to Online to receive the instruction to require Operator Sign In. After this setting is received by the display a reboot will be required for Operator Sign In to be active.

0.3.b

Work Orders™ Feature

Work Orders| Requirements and Setup Steps

FARMER CORE ONBOARDING

Objectives: In this session you will learn how to set up Work Orders.

Work Orders Requirements

- ○ PiQ-enabled display
- ○ Wireless cellular connectivity for display
- ○ Firmware Updated :
    - ○ GFX-750: 2.50, GFX-350: 1.50, TMX-2050: 6.50
- ○ Trimble Ag Software account and Display Licenses (Farmer Core)
- ○ AutoSync Turned On

Work Order Setup Steps

1. **Display**: Setup and Enable AutoSync in Precision-IQ (see Section 0.3.a)
2. **Display:** Allow AutoSync to sync (syncs vehicle and implement profiles to Online)
3. **Web**: Enable Work Orders in Online
4. **Web**: Create a Work Order

Then you will see other two useful steps:

1. How to disable Work Orders
2. How to enable or disable an Operator Sign in

Watch this [video](#) to learn more.

Work Orders| Various Options

FARMER CORE ONBOARDING

Objectives: In this session you will learn how to create an Work Orders and send it to display.

Various Options

- Create a Work Order Online
  - Flat rate
  - VRA Rx

- Create a Work Order in the Display

Work Order VRA Rx Materials - Version 1

Types	Flat Rate	VRA
Seed - Single Variety	✓	✓
Seed - Single Product	✓	✓
Fertilizer - Single Product - Dry	✓	✓
Fertilizer - Single Product - Liquid	✓	✓
Tank Mix - Chemical	✓	Coming soon
Tank Mix - Fertilizer	✓	Coming soon
Water	✓	

Trimble

Work Orders| Turn On in Online

FARMER CORE ONBOARDING
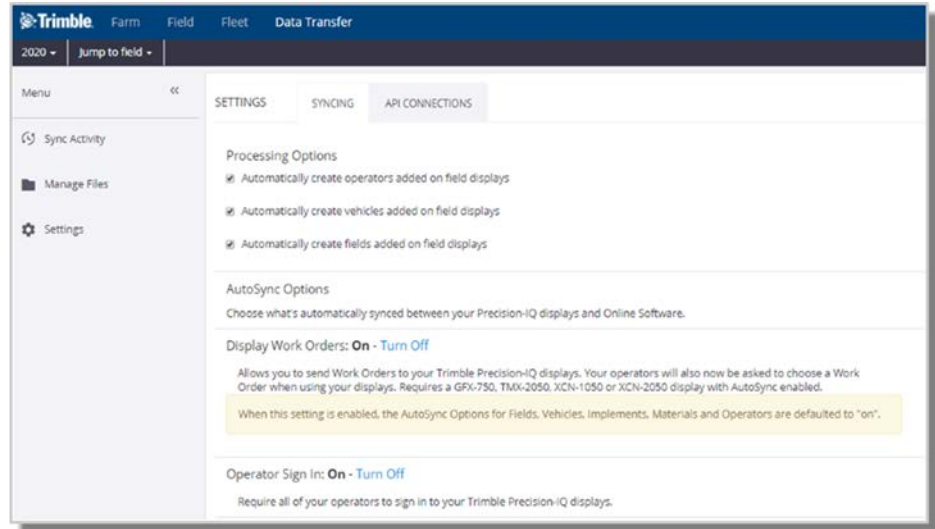
1. In Online, navigate to **Data Transfer > Settings > Syncing**
2. **Display Work Orders: On**   Find the Display Work Orders option, then click the Turn On link to activate display work orders. You must have at least one Trimble PIQ display with an active display license before the Work Orders screen will become available in the Online account.

Online | Create a Work Order with Flat Rate

FARMER CORE ONBOARDING

1. To access Work Orders, click on **Field** > **Work Orders**
2. Click on **+ADD** blue button and select the type of Work Orders you want to create.
3. We are going to use Seeding Work Orders for this demo.
4. Now, select the field you want to create a work order, you can also select multiple fields if you want to send the same task across different fields.
5. Next, Add the **Planned Date** for the job and the **Due Date** and hit Apply
6. Go to the next screen, **Vehicle.** Click **+ADD** on the right top corner in the page and select the vehicle that will perform this job. You can also allow the Operator to choose the vehicle id desired by clicking the check box on the top
7. Go to Implement and proceed in the same way.
8. Now in the Material Tab, select **Add Material** and then in the button **+ADD.** Choose the material in the list and click ADD. If no materials are available, visit Session **0.2.d** to learn how to add a material. You can fill out SEED Source for information purpose. The information entered in that session does not go to the display.

Online | Create a Work Order with Flat Rate

FARMER CORE ONBOARDING

Continuing...

9. Next Step is the **Operator** Tab. If you want to define an operator for this job, click in **+ADD** and select the operator in the drop list and then ADD. If you want to make this job available to any operator, then you can select the check box on the top: **"Allow any operator to complete this Work Order".**

10. Now on the Weather **Restriction** tab you can enter with any weather information you may want the Operator to consider in the display before proceeding with the job. This information shows up in the display, but it has to be checked by the operator through other data feed. Fill out what you need to restrict and click **SAVE**.

11. The last tab is the **Guidance Lines.** The Guidance Lines from the display will be synced into Online when you turn-on AutoSync. You can then select the guidance line that's going to be used for this job, or let the operator to choose in the display. Click **SAVE**.

12. Your Work Orders is now completed and ready to sync to display.

Online | Create a Work Order with VRA Rx

1. Repeat Steps 1 to 7 from the session Create a Work Order with Flat Rate.
2. Now, in the Material Tab, select click **+ADD.** Select the desired product and click **ADD.**
3. A new window is going to show up and you should select the **Variable Rate** option.
4. As part of this workflow you will need to upload and third party prescription in a shapefile format. The system will request the three file components: .shp, .dbf and .shx. The .prj is optional.
5. As soon as the file is read, make sure you select the units in the dropdown and click **NEXT**.
6. Enter with **Lead Time** (The estimated amount of time it takes for your rate valves to adjust when entering a new prescription zone) and **Off -prescription Behaviour**. There are three options to choose from: Zero Rate, Last Rate and Default Rate. The Default rate is defined in your PiQ settings. Select your option and click **Ok**.
7. Repeat the steps 8 to 11 from the session Create a Work Order with Flat Rate.
8. Your Work Orders is now completed and ready to sync to display.

Mobile | Create a Display Work Order
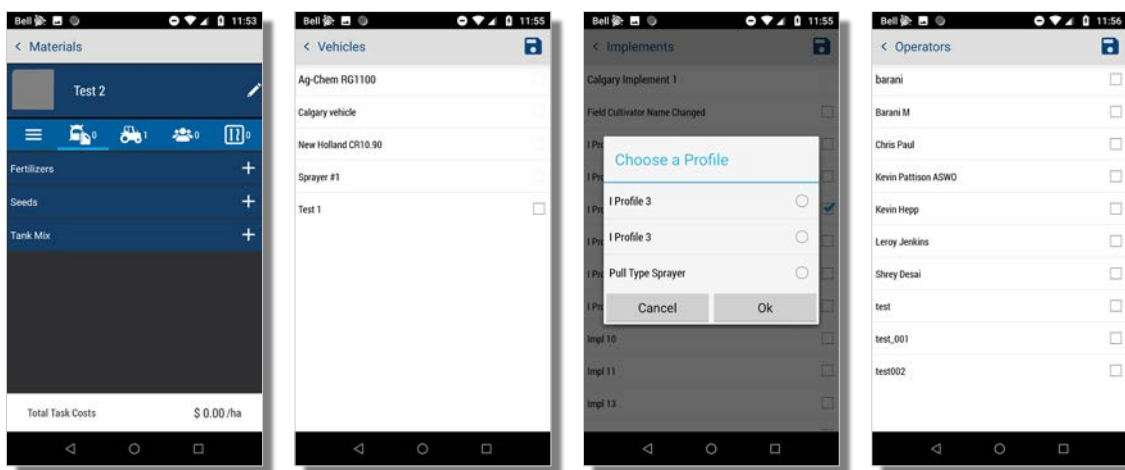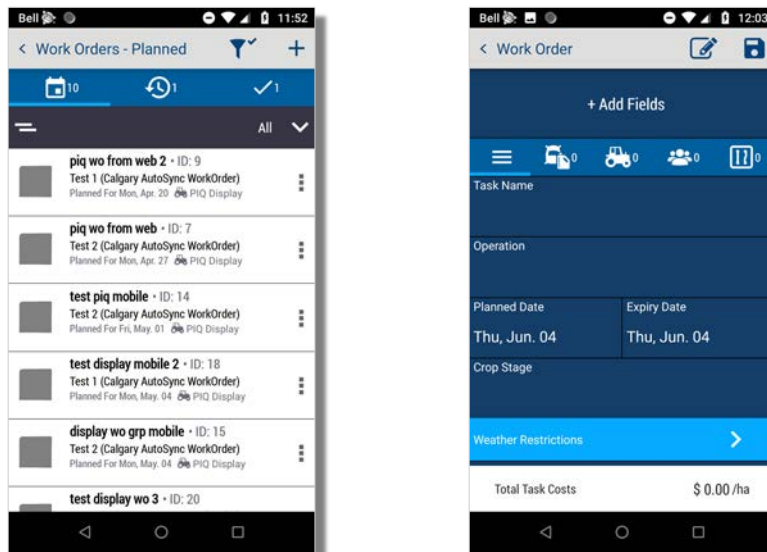
Create Display Work Orders from Trimble Ag Mobile
1. Use the + (plus sign) in the upper right corner to add a new work order
2. Add Fields, General Details, Materials, Vehicles, Implements, Operators, Weather Restrictions, and Guidance Lines
3. Search materials from your available My Materials lists for Fertilizers, Seeds, and Tank Mixes
4. Select Vehicles and Implements with synced profiles
5. Save the Work Order and Sync the mobile app to sync to your connected devices

Mobile | Email Work Orders

Share Work Orders via email

1. If you created Work Orders in the mobile app, make sure you Sync to online before proceeding, this step is required for the report generation..

2. Click in the Work Orders tile and select the Work Orders you want to share via email. Press on the boundary icon to add a checkmark to each work orders to include. The list of Work Orders will be a combine list of all Work Orders created, either from online or mobile app.

3. Click on the "Report" button on the top right menu.

4. In the pop-up window indicate whether you would like the work orders grouped into a single link (Yes) or if you want each work order to have a separate link (No).

5. Select the method for sharing the Work Order Detail report from your device options.

6. The Work Order Detail report is now shared! The recipients will receive an email with a link to open the Work Order Detail report.

Watch this video to learn more.

Display| Visualize and Execute Work Orders

FARMER CORE ONBOARDING
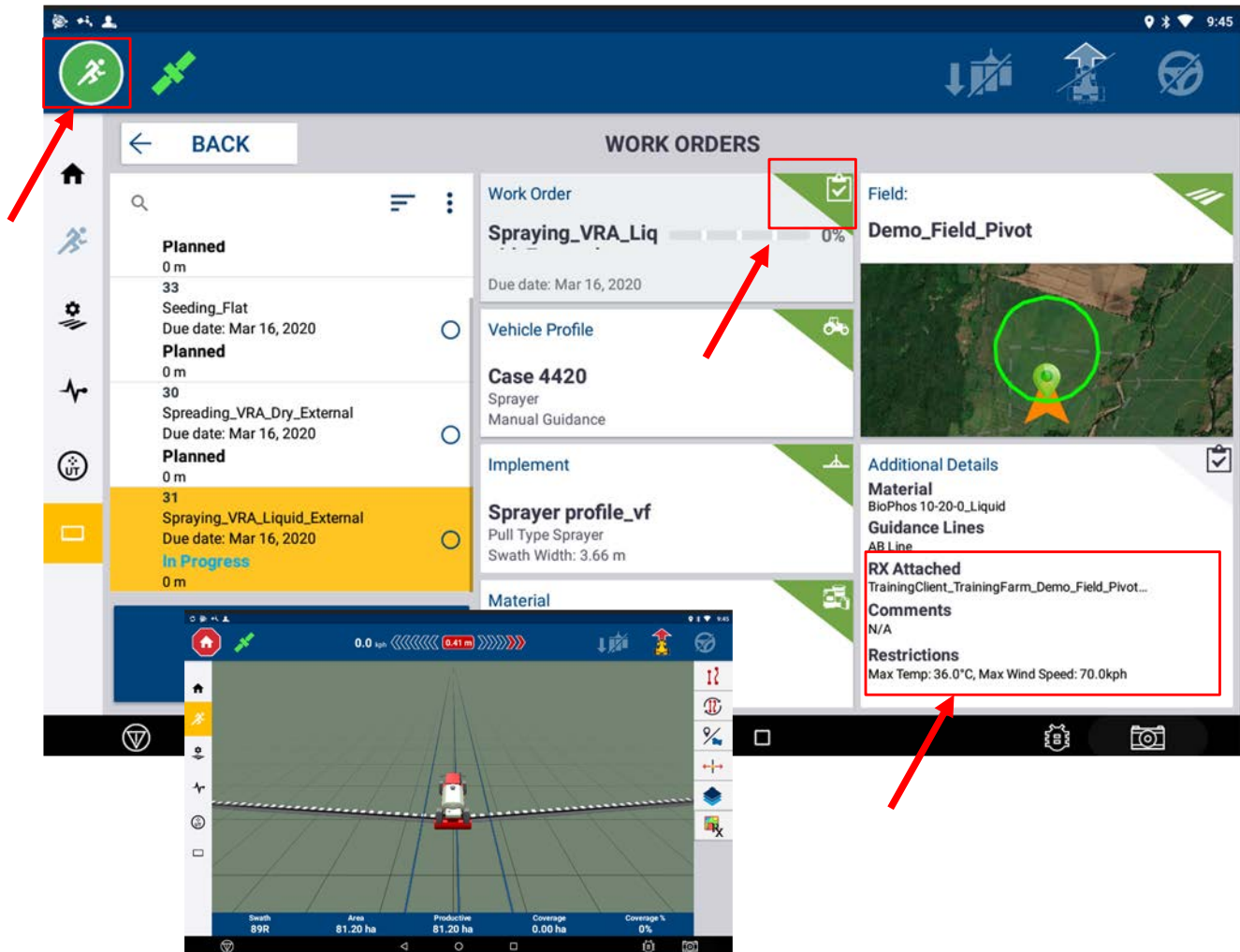
1. Start **PIQ** in the display
2. Click on the **Home** button
3. Select the **Work Order** that you want to execute
4. Check if everything is working before you proceed:
   a. All the Components: **Work Order, Vehicle Profile, Implement** and **Material** should be green. If not, please see the next page.
   b. Check if the Rx shows the attachment (only required for VRA prescription)
   c. Weather Restrictions are going to be informed. Operator must use third party apps to verify the current weather
5. If you confirm that everything is working well, click on the Run button on the top of PIQ to execute the task

Display| Change Vehicle and Implement Profile
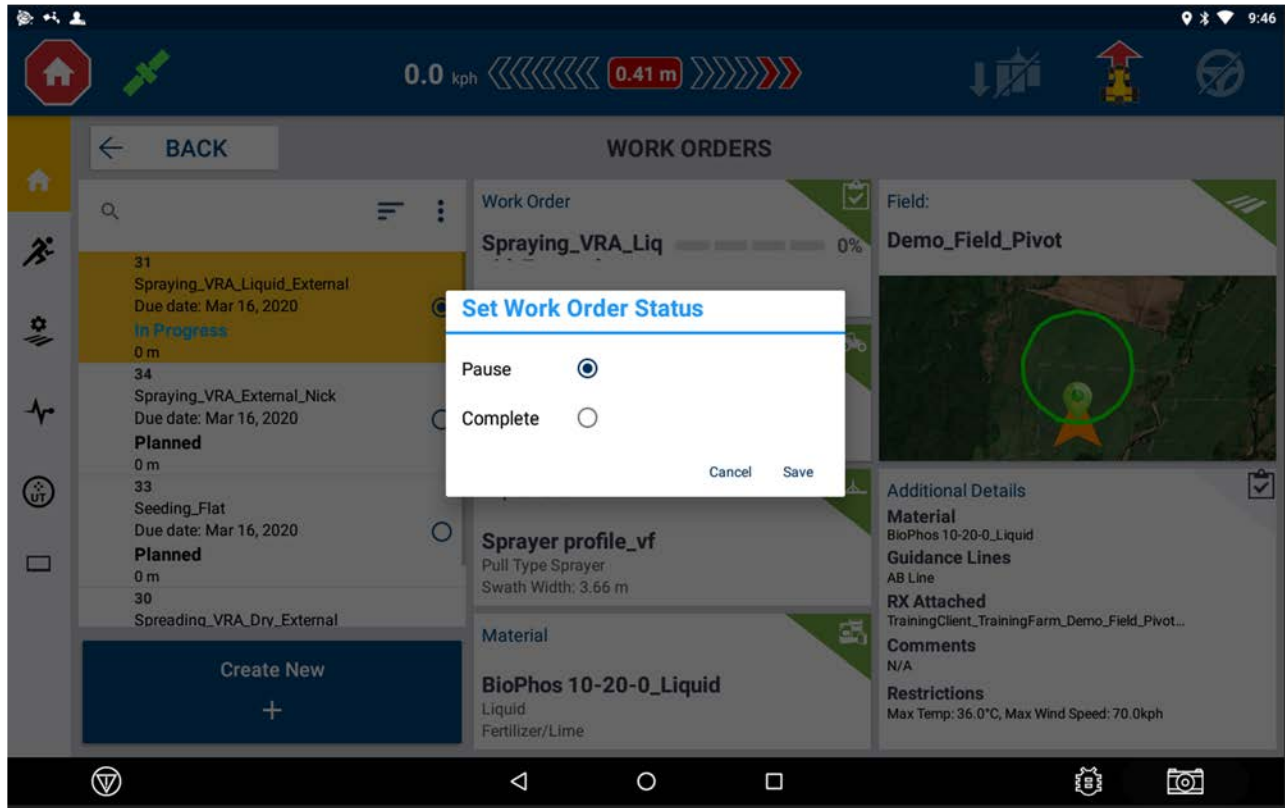
FARMER CORE ONBOARDING
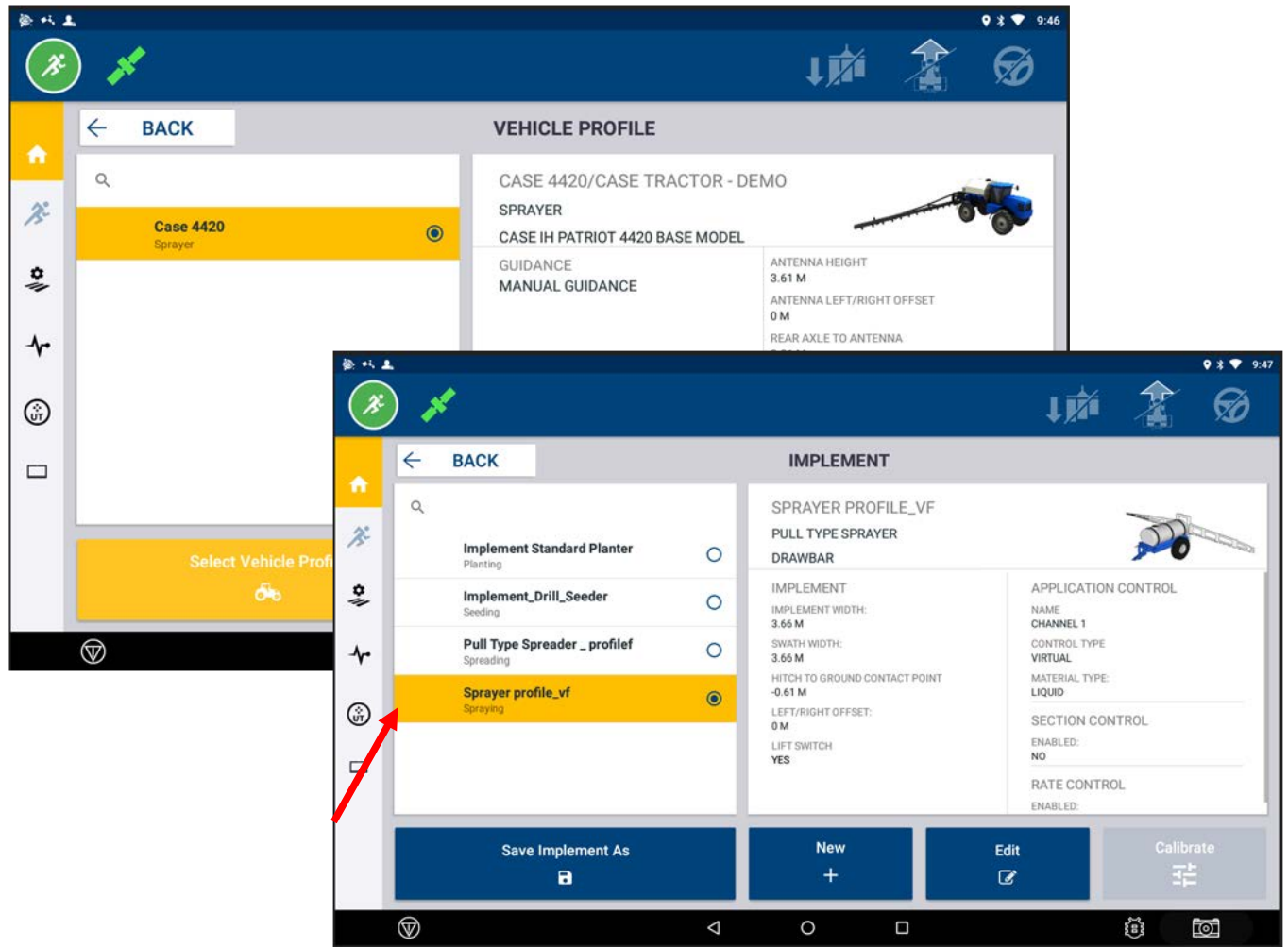
1. If the Work Order selected does not have a Vehicle or an Implement or showed a yellow exclamation point instead of a green button, the operator will need to click on the item that requires further action to fix it.
   a. Another window is going to open and the operator can select the correct item (vehicle/implement/material) to perform the job.
   b. If nothing is available, the operator must follow the steps to add a new vehicle or implement profile that will be used to perform this job
   c. Follow the instructions and provide all required information.
   d. Once completed, the Vehicle and/or Implement is going to be shown for selection.

Display| Pause or Complete a Work Order

1. As the Work Order is started, the operator will always have the option to click on the Home red button to:
   a. Pause and Stop a work order to complete another time
   b. Mark as complete when the task is done
2. As the auto-sync is turned on, the job executed will automatically sync to online and be available for you verification in the Equipment Activity.
3. Next, visit the session 0.4 to learn how to visualize the data in different areas of the online software and create reports.

Display| Create a New Work Order

FARMER CORE ONBOARDING
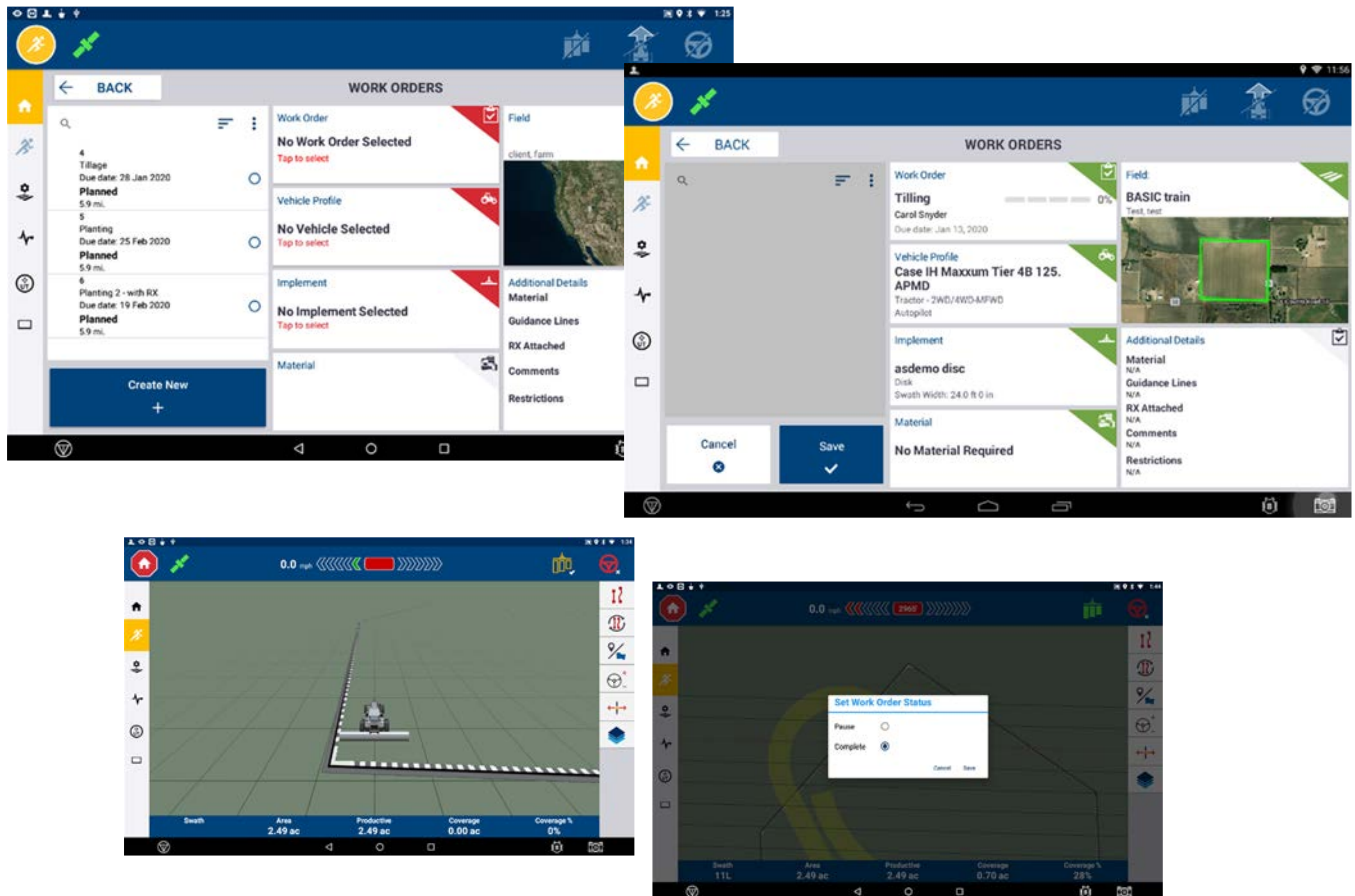
1. From the Work Orders Selection Screen, click the Create New button
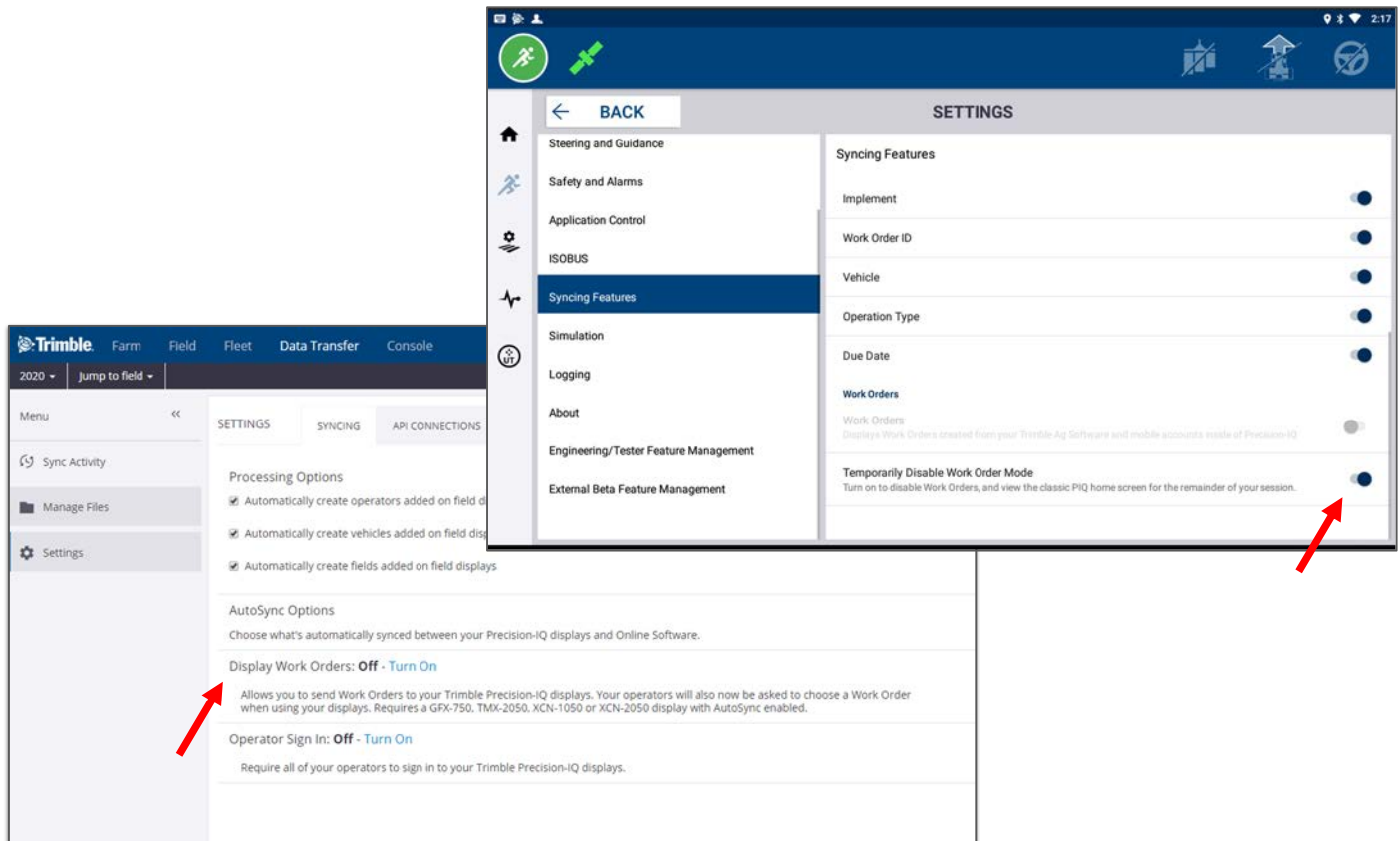2. Select the details for each task tile (Work Order, Vehicle Profile, Implement, Material, Field)
3. When all task tiles are green, click Save.
4. Click the Run button to perform work as usual in the field.

1. Click the Stop button to pause or complete the work order.
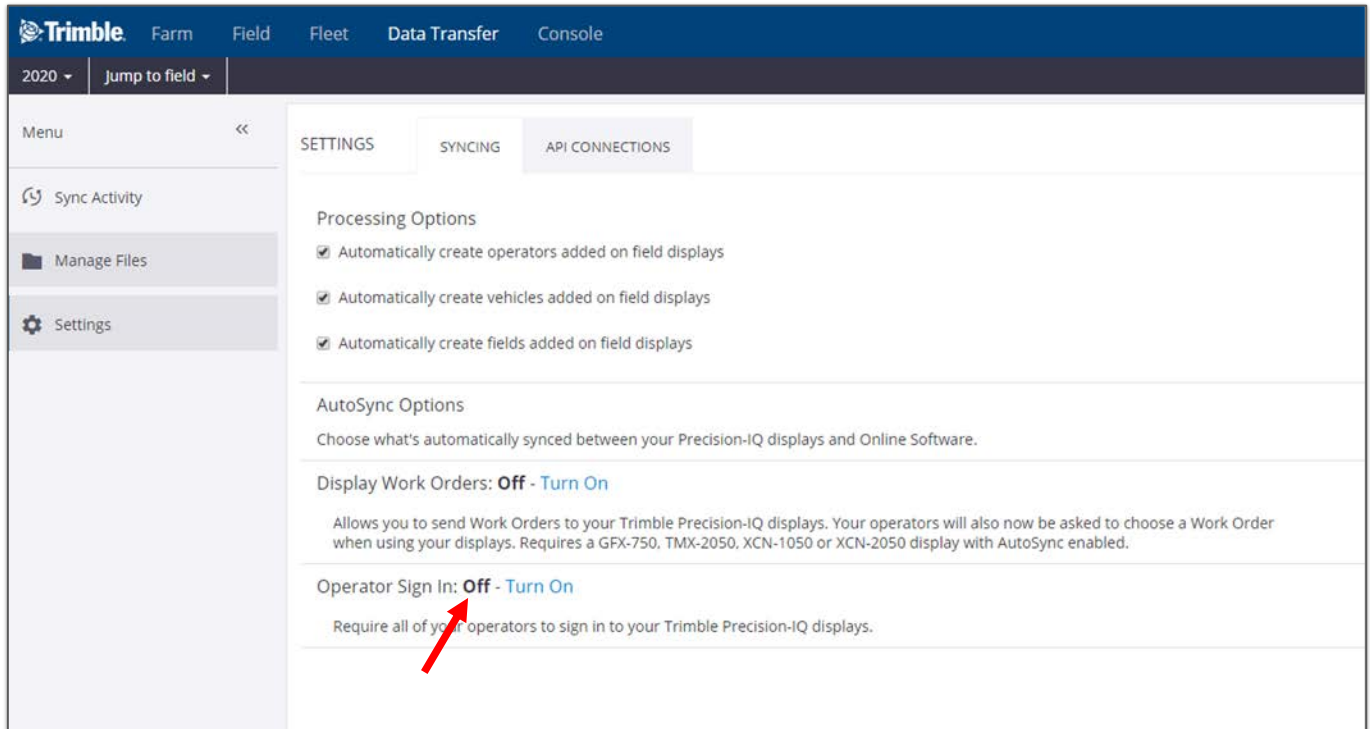
Disable Work Orders
Display and Online

Display
1. From PIQ Settings, click on **Syncing Features**
2. Scroll down to the bottom and find Work Orders
3. You can temporarily disable Work Orders in a specific display.
4. Switch the button to **on**
5. PIQ will go back to the normal screen default
6. Work Orders functionality will resume after a display power cycle.

Online
1. Go to **Data Transfer** menu
2. Click **Syncing** option
3. Then **turn OFF** Work Orders option
4. This will prevent all connected displays in theis Org to use Work Orders
5. It requires this option to be turned **ON** online for the displays to access Work Orders

Manage Operator Sign in from Online

FARMER CORE ONBOARDING

Online
1. Go to **Data Transfer** menu
2. Click **Syncing** option
3. Then find the Operator **Sign in** option
4. **Turn OFF** that option if you don't want the operator to login with his credentials in the display
5. **Turn ON** that option if you want the operator to login with his credentials in the display
6. This will be applied to all operators access to all displays associated with this Organization

0.3.c

Prescriptions

Online | Prescriptions Tab Overview
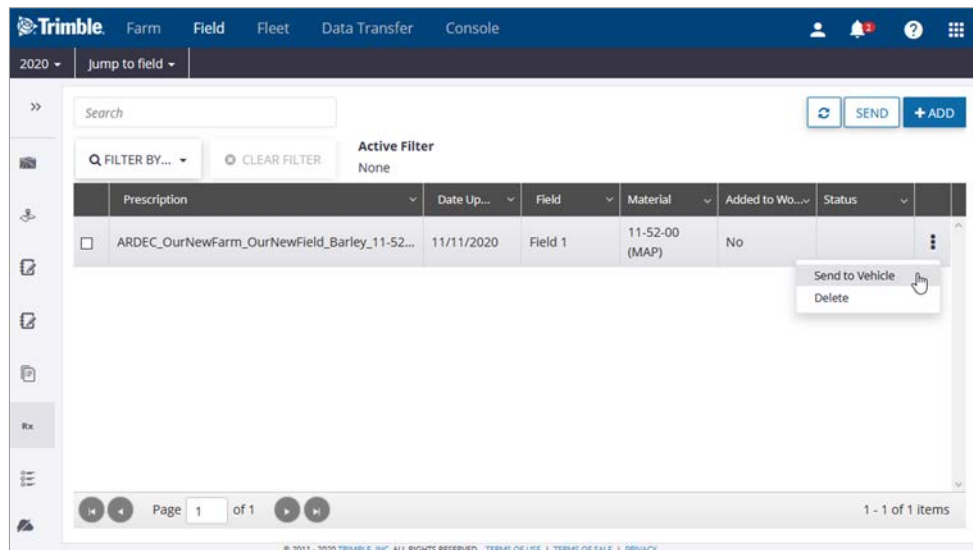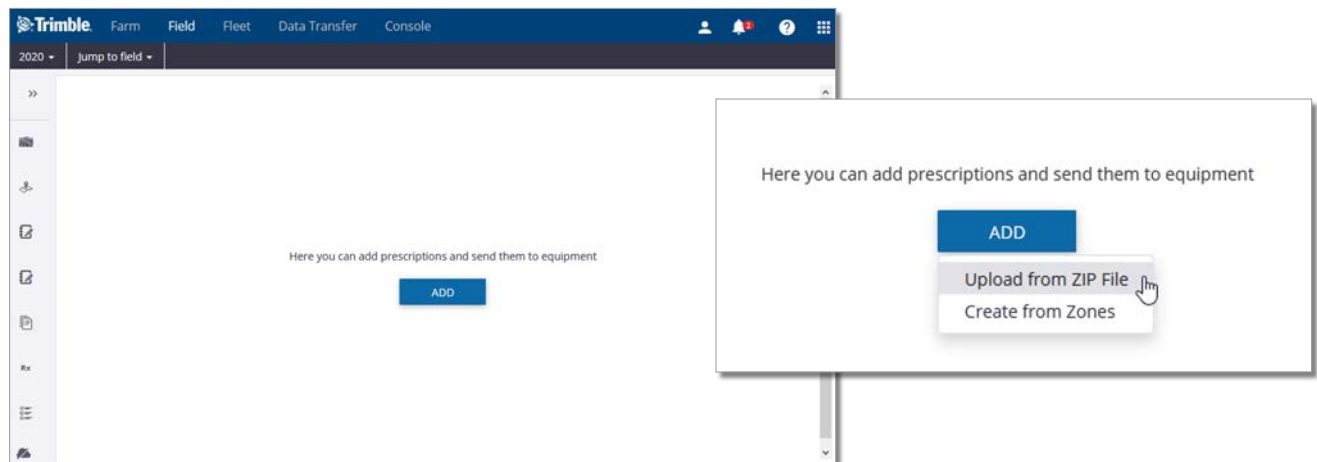
The Prescriptions tab has been added to create, store, and send prescription files to connected displays
  – create from externally saved shape file prescriptions saved as a zip file
  – create from zone maps uploaded or created in Farmer Core
Send directly to any AutoSync or Office Sync display
All material types are supported
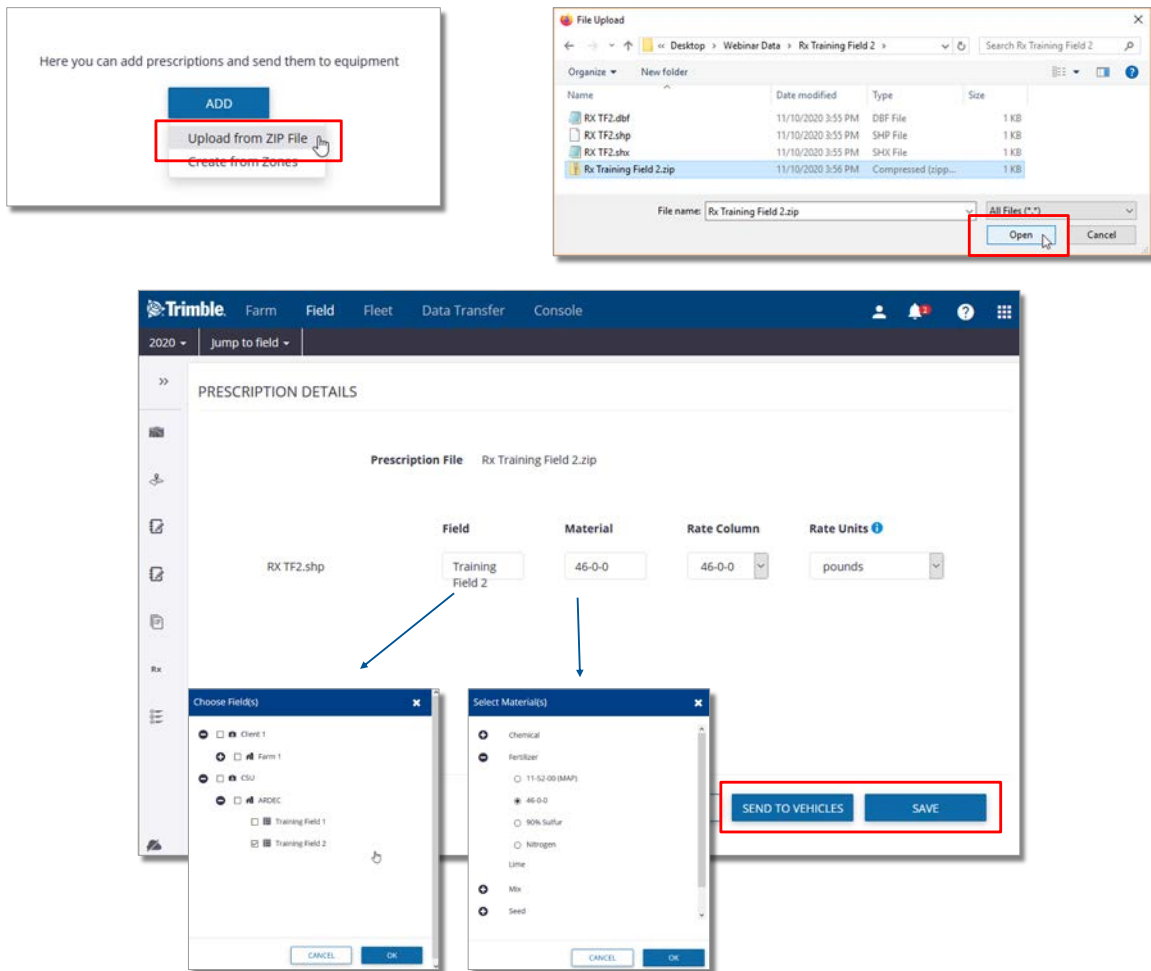 – Fertilizers, Seeds, Chemicals, Tank Mixes
Prescriptions that are saved are not able to be edited
  – Delete a Prescription and recreate to make any changes
  – Deleting a Prescription will not send a delete request to the display via AutoSync

Online | Add Prescription from Zip File

Add Prescription from Zip File

1. Open Field>Prescriptions
2. Click the Add button
3. Select the Upload from ZIP file option
4. Browse to the file location where the zip file has been stored, select the file, and click Open
5. Use the drop-down menus to select the Field and Material for the prescription
6. Verify the Rate Column and Rate Units
7. Click Send To Vehicles to send to any AutoSync or Office Sync connected display for your Organization - the file will also get saved to the Prescription page.
8. Alternately, click the Save button to save the prescription and send to connected displays at a later time.

Online | Add Prescription from Zones
Create Zone Map

FARMER CORE ONBOARDING
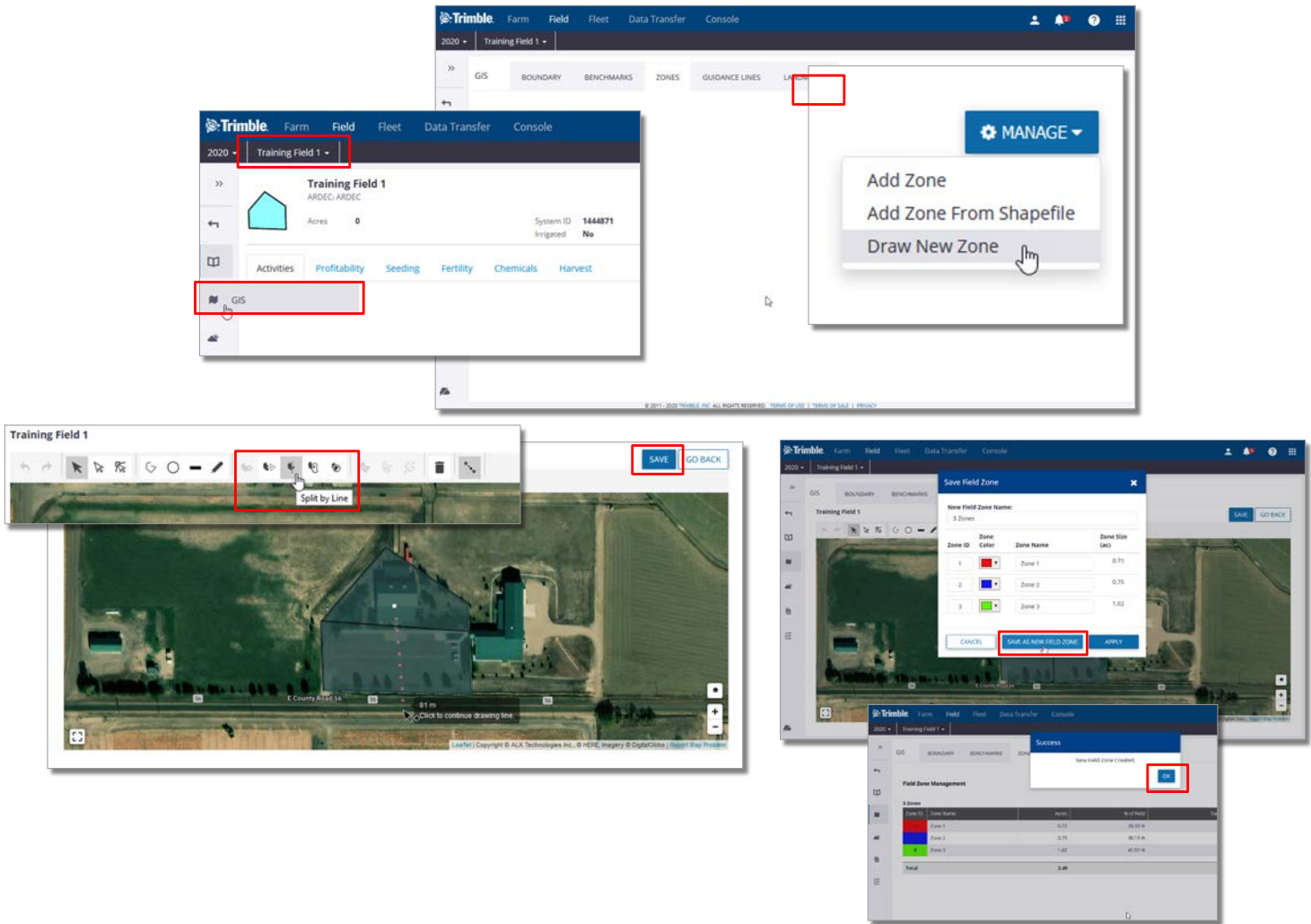
1. Open the field where the zone map is going to be created
2. Select the GIS tab
3. Open the Zones tab
4. Click on the Manage button
   a. Add Zone From Shapefile (the shapefile for zones must have unique ids for each zone)
   b. Draw New Zone
      i. Use the drawing toolbar in the map view to manually create the desired zones, then click the Save button
      ii. Enter the New Field Zone Name and select the desired color assignment for each zone, click the Save a New Field Zone button then click OK on the Success confirmation window.

Mobile| Management Zone Creation

FARMER CORE ONBOARDING
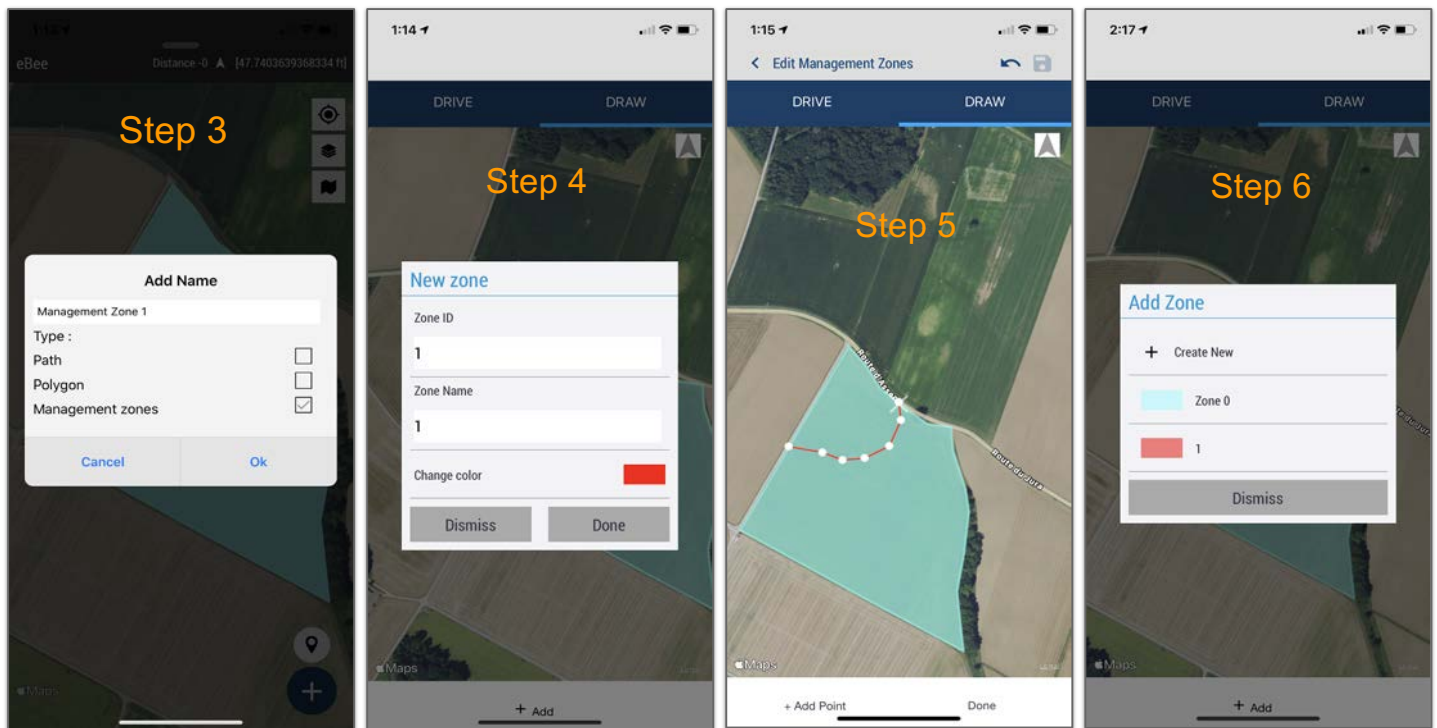

1. In the mobile app, select the "fields" tile from the home page, and then choose the field you want to create a zone for.

2. You will then see a field map at the bottom of the page. Click on the grey bar above the field map to expand it to full screen.

3. Click the "+" sign in the bottom right corner. Check off the "management zone" option, set a name for the zone and click ok.

4. Choose to either drive or draw the zone. Click "+add", set the zone name, zone ID, and color for the zone, then click done.

5. If you are driving the zone, click "start" and begin driving the zone boundary. If you are drawing the zone, move the X to the desired spot, click "+add point" then repeat the process to begin drawing out the first zone in the set.

6. By default we carve out the existing boundary and create it as a "zone 0" at the start of this process. When you finish adding the first zone in the set, and start another one, you will see this zone 0 created as well. You can either override it and turn it into a zone in the set, or leave it be and delete it online once the zone creation process is finished.

Mobile| Management Zone Creation

FARMER CORE ONBOARDING

Step 7

Step 8

Step 10
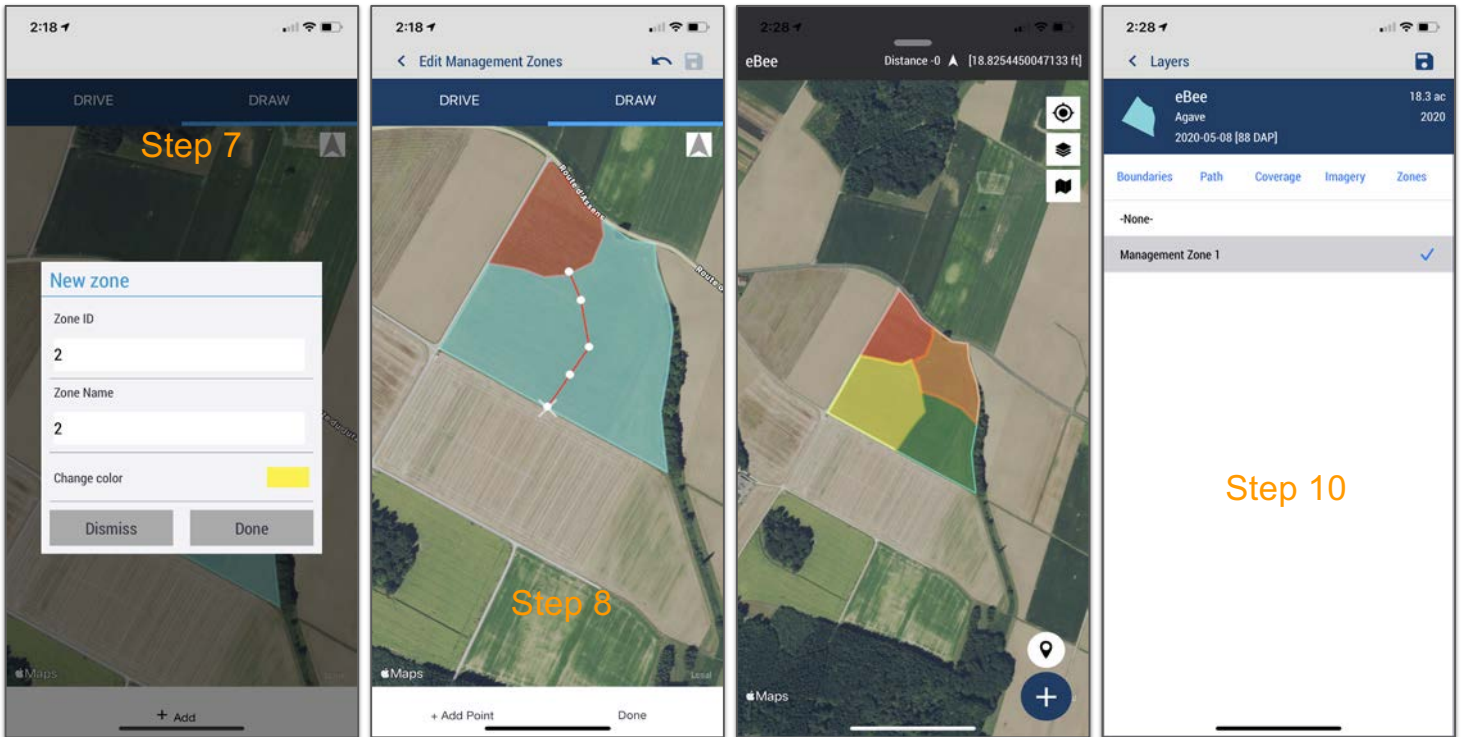
7. Set the zone ID, zone name, and zone color for the second zone in the set.

8. Drive or Draw out the second zone in the set by clicking "+add point" until you first point in the zone again, which will close out the zone. Repeat steps 7 and 8 for each zone in the set until you are complete with the zone set.

9. Once you are finished, hit the save icon and you will see the newly created zone as a visible layer on the field map.

10. Click the layers icon (3 squares stacked on top of eachother) and navigate to the zones tab. You will see the zone listed there where you can enable it or disable it as a layer showing on the field map. Once you sync the mobile app, this zone will also be available online under GIS>zones.

Online | Add Prescription from Zones

Create from Zones

1. After saving the zone map in the GIS tab, return to the Prescriptions tab.
2. Click the Add button, then select Create from Zones
3. Select the Field in the Select Field window, then click Next
4. Select the Material in the Select Material window, then click Next
5. Enter a name for the prescriptions in the Create Zone Prescription window
6. Use the Zones drop down menu to select the previously saved zone map
7. Enter the Lead Time and Off-prescription behavior
8. Manually enter the rate for each zone
9. Click Send To Vehicles to send to any AutoSync or Office Sync connected display for your Organization - the file will also get saved to the Prescription page.
10. Alternately, click the Save button to save the prescription and send to connected displays at a later time.

Online | Send Multiple Prescriptions

FARMER CORE ONBOARDING
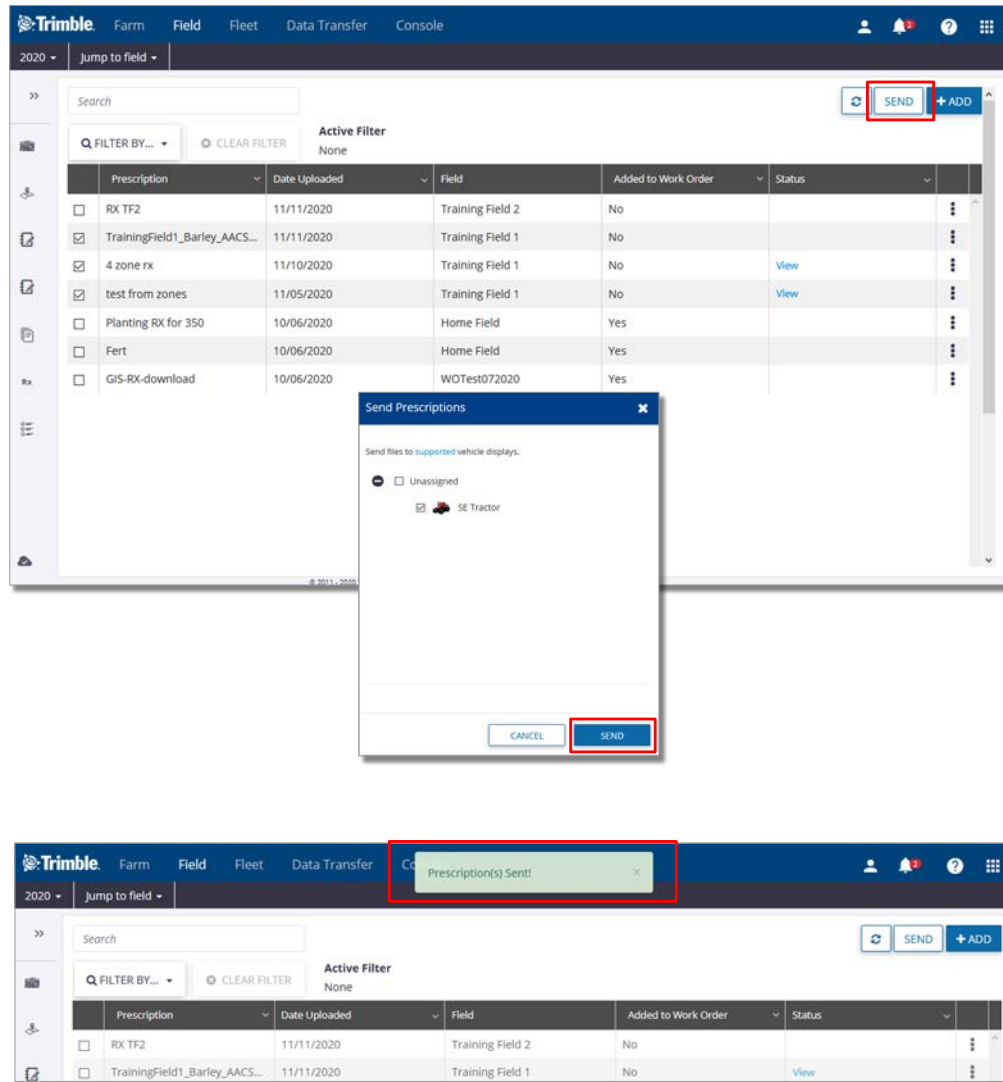
1. Create and save the prescriptions on the Prescriptions tab
2. Select the desired prescription files by placing a checkmark in the checkbox
3. Click the Send button in the upper right corner
4. Select the desired AutoSync and Office Sync connected vehicles from the Send Prescriptions window
5. A Prescriptions Sent confirmation popup will appear when sent.

Online | Sent Prescriptions Status

View the status of sent prescriptions
1. Open the Field>Prescriptions tab
2. Sent prescriptions will show a View link in the Status column
3. Click the View link to open the Send History window
4. Details for each vehicle where the prescription has been sent will be displayed
   a. Date Sent
   b. Vehicle name
   c. Device type
   d. Status (Pending, Sent, or Cancelled)

0.4

Uploading Data

0.4.a

Equipment Data Upload

Option 1 | API Connection
FARMER CORE ONBOARDING

1. Click **Data Transfer** tab > **Settings > API Connections**
   - Click + **Add Account** to select the desired API Connection
     - Raven Slingshot®
     - AGCO Variodoc
     - JD Link
     - AFS or PLM Connect
2. Enter the credentials for the API Connection
   - CNH API Options
     - Sync Data
     - Manage Companies
   - JD Link Options
     - Settings
     - Import Fields
     - Import Files (for historical data)
3. View the data in Online like any other Equipment Activity data
4. Check the compatibility chart to see what API data is transferring

Watch this video to learn more.
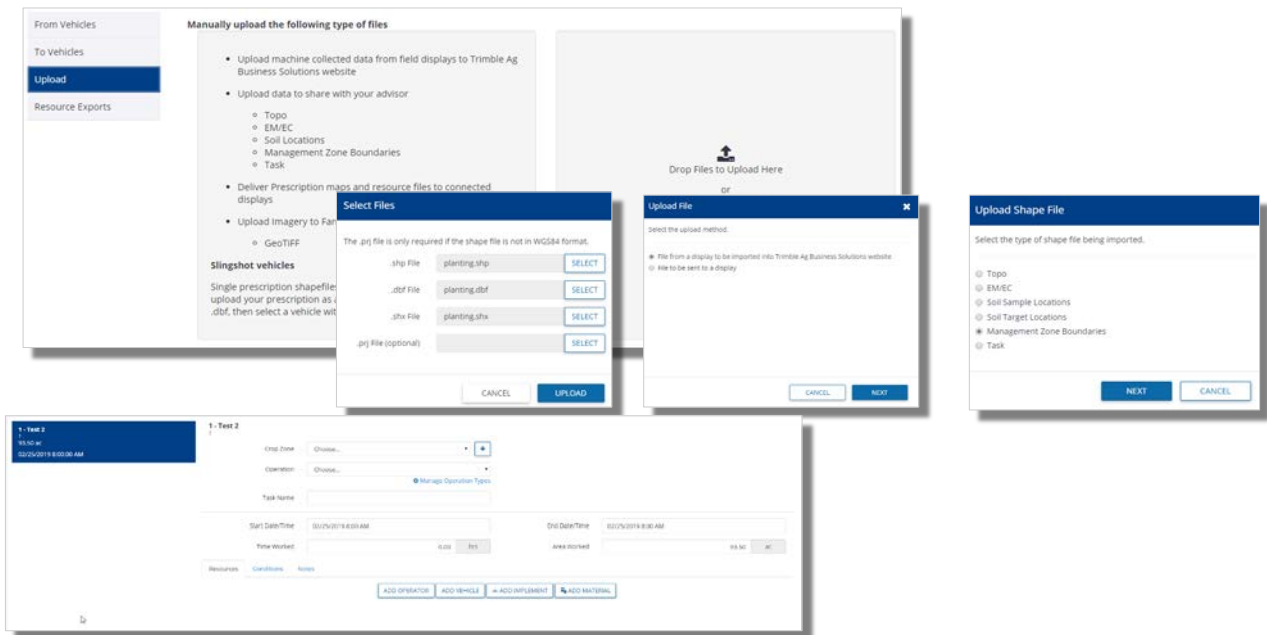
Option 2 | Trimble Display
FARMER CORE ONBOARDING

1. Trimble Display data can be viewed in several places on the website
   - **Field Task History** on the Home Page
   - **Field** > **Equipment Activity**
   - **Field Manager** > **Field Map**
2. Setup **Data Transfer**
   - Create a **Vehicle** configured with a **Display License** in Online
     - **Add** the Display Device **serial number** from the drop down
     - **Assign** a **display license**
   - **Configure** the **Trimble Display** for Office Sync
     - **Load** Active Plugin for Office Sync (FmX/FmX+)
     - **Configure** Data Transfer (Office Sync)

Once set up, data will begin populating in the website wirelessly.

Option 3 | Manual Importing Data
FARMER CORE ONBOARDING

1. Click **Data Transfer** tab > **Manage Files**
2. To upload a **shapefile**
    - **Search for** or **drag** the shapefile components for upload
    - Select **"File From Display to be Imported…"**
    - Select the **type** of shapefile being imported
    - Select the appropriate **attributes** from the **dropdowns** for the file type you are uploading as well as the relative **unit of measurement.** Note this will vary depending on the task type
    - Select the proper **Field**
    - Enter a **Crop Zone, Operation Type** and **Task Name**
    - Add a **vehicle** to the Task. Note that Vehicles must be added ahead of time to populate in the list
    - All other details are optional.
    - Click **Save**
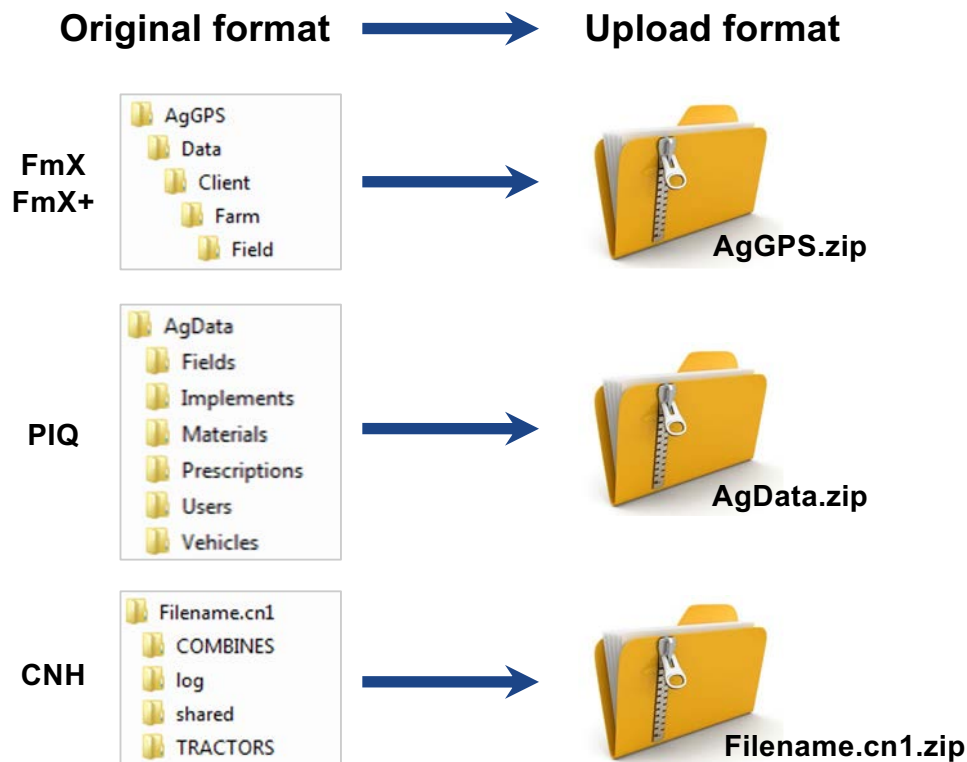3. To upload **display data**
    - To upload **display data**, the file needs to be zipped before uploading
    - **Search for** or **drag** the zipped display file for upload
    - Select **"File From Display to be Imported…"**
    - Select the **display format**
    - Select the **Vehicle** and Click **Upload**
    - Monitor the **processing status** of your upload via **From Vehicles** tab

▶ Watch this video to learn more.

Option 3 | More Info for Uploading
FARMER CORE ONBOARDING

Original format → **Upload format**

FmX
FmX+

AgGPS
  Data
    Client
      Farm
        Field

→ **AgGPS.zip**

PIQ

AgData
  Fields
  Implements
  Materials
  Prescriptions
  Users
  Vehicles

→ **AgData.zip**

CNH

Filename.cn1
  COMBINES
  log
  shared
  TRACTORS

→ **Filename.cn1.zip**

1. Click **Data Transfer** tab > **Manage Files**
2. To upload a **shapefile**
   - **Search for** or **drag** the shapefile components for upload
   - Select **"File From Display to be Imported…"**
   - Select the **type** of shapefile being imported
   - Select the appropriate **attributes** from the **dropdowns** for the file type you are uploading as well as the relative **unit of measurement.** Note this will vary depending on the task type
   - Select the proper **Field**
   - Enter a **Crop Zone, Operation Type** and **Task Name**
   - Add a **vehicle** to the Task. Note that Vehicles must be <u>added</u> ahead of time to populate in the list
   - All other details are optional.
   - Click **Save**
3. To upload **display data**
   - To upload **display data**, the file needs to be zipped before uploading
   - **Search for** or **drag** the zipped display file for upload
   - Select **"File From Display to be Imported…"**
   - Select the **display format**
   - Select the **Vehicle** and Click **Upload**
   - Monitor the **processing status** of your upload via **From Vehicles** tab

Option 4 | Import from shapefile
FARMER CORE ONBOARDING
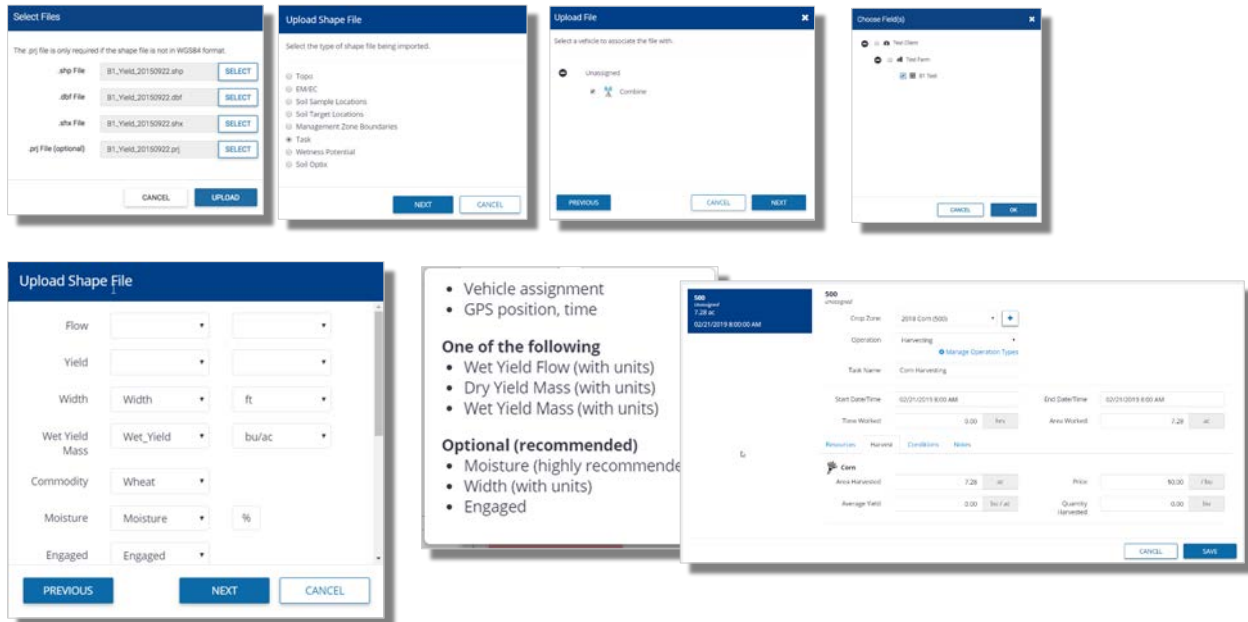
1. Go to the **Data Transfer** tab (top menu)
2. Select **Manage Files**
3. Click **Upload** tab
4. Click **Upload Files** and navigate to harvest data shapefile (shp, shx, dbf are required)
5. Select "**Task**" as the shapefile type
6. Use the dropdown menus to identify the relative **attributes** associated with the **Yield Data.**
   - Ideal attributes to identify for optimal cleaning:
     - **Flow**, **Moisture**, **Width**, **Engaged**, **Wet Yield Mass**
   - Required field is **Timestamp**
7. Click "**Create Task File...**"
8. Select the appropriate **Field** for the Harvest Data
9. Fill in the remaining Task details
   - Choose a **Crop Zone** (if one does not exist then use the **Plus** symbol to add one)
   - Choose **Harvest** for the **Operation**
   - Choose the appropriate **Start** and **End** date
   - Click **Add Vehicle** to attach a **Combine** to the task
   - All other details are optional.
10. Click **Save**
11. Resulting yield data will be available under **Field** > **Equipment activity**.

Note that the dropdown requirements will change depending on the Task shapefile you are uploading, i.e. Yield requires different attributes then Planting.

Online | Equip. Activity: Verify Task

FARMER CORE ONBOARDING

Verify Task is critical to push as applied data to other parts of the software

Until you verify, Equipment Activity works as a Placeholder for the information

Important!
- Before Verify Task, make sure your Fertilizers contain product composition otherwise the system will not push as applied data to other parts of the software
- Verifying Cleaned Yield data will push resulting yield map to the fields Harvest Data tab for profit analysis
- Task files uploaded via Shapefile will come into the software auto-verified
- Task files synced from the Trimble Desktop software will come in auto-verified

Watch this [video](#) to learn more.

Online | Equipment Activity

1. Click **Field** tab > **Equipment Activity**
   - View the list of equipment activity (tasks) that have been uploaded into Online
   - Quickly view the activity items that need verified - i- indicated with the caution symbol
   - Select an activity item to **Add, Edit, or Delete**

   - Select items to **Verify, Merge, or Reassign**

1. Use the **Filter By...** drop down menu to filter the equipment activity list to Date, Crop, Is Verified, etc.
2. Click on a specific task to open the Summary view of the mapped attributes as well as the Inputs data
3. You can edit any necessary details of the equipment activity task prior to clicking the Verify button to ensure accurate data in the Field Profiler information - Save any edits, and then click Verify

Online | Equipment Activity Export
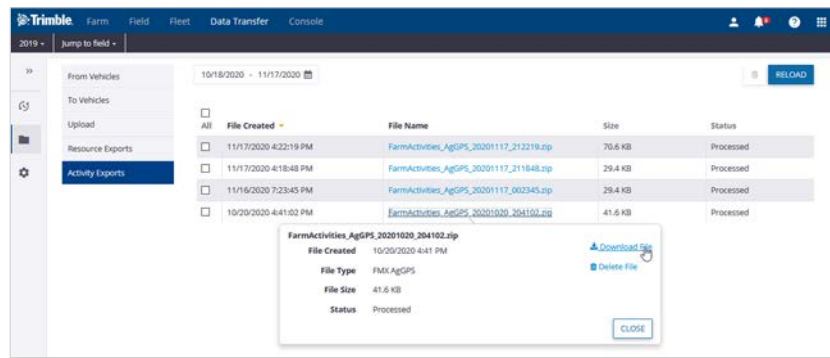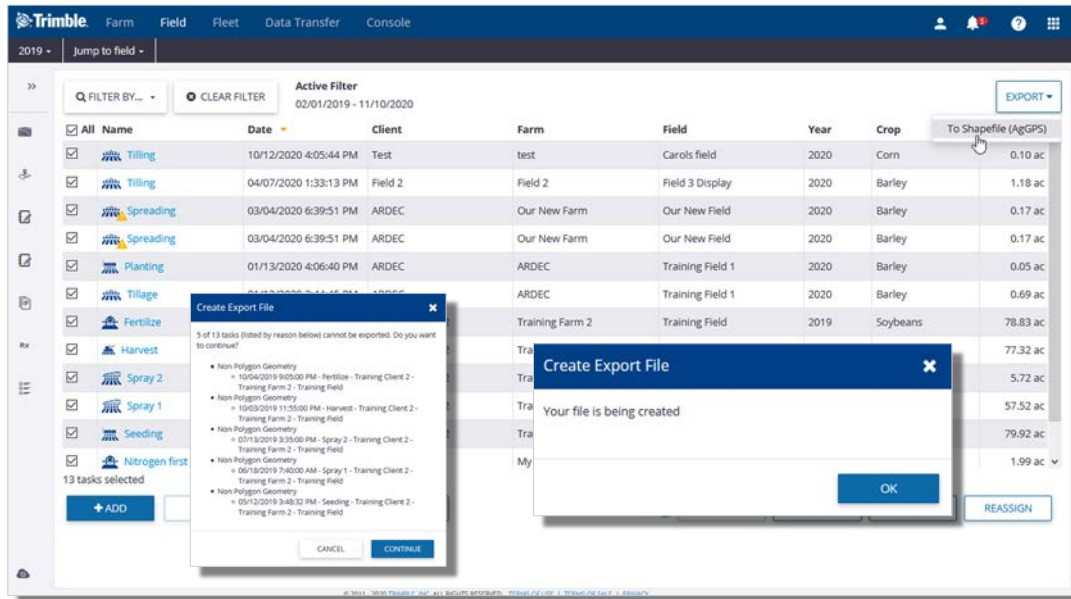
Export AgData as-applied data from Online in Shapefile format to be able to utilize your PIQ as-applied data outside of Online.

1. Open Field>Equipment Activity
2. Place a check mark beside the tasks you would like to export
3. Click on the Export button in the upper right corner of the screen
4. Select To Shapefile (AgGPS)
   a. The output file converts PIQ AgData files into an AgGPS directory structure where the shape files are embedded
   b. Point-based data and tasks with no coverage will notify of an exception and are not included in output file.
5. Click the OK button on the Create Export File confirmation window.
6. A zip file containing the exported as-applied data is then created and stored on the Data Transfer>Activity Export page where it can be downloaded.

0.4.b

Generic Data Upload

Online | Import Data (UAV Imagery)
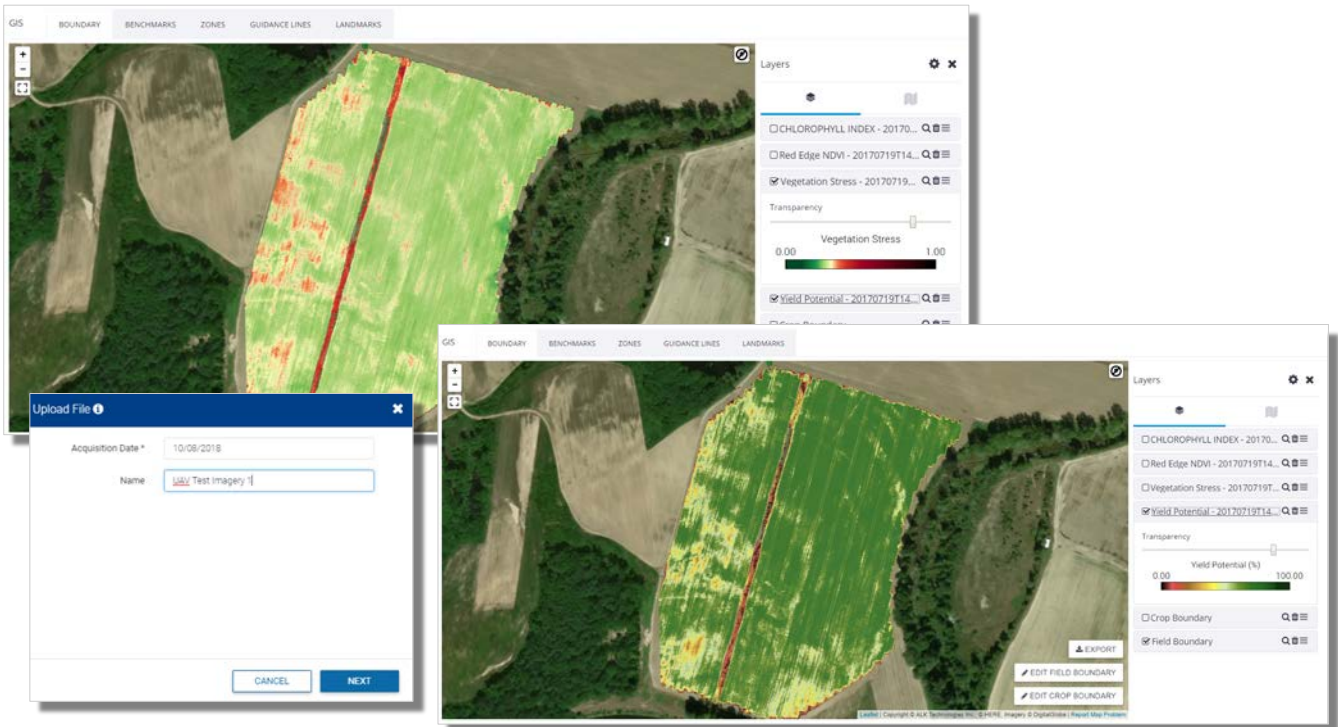
1. Go to the **Data Transfer** tab (top menu)
2. Select **Manage Files**
3. Click **Upload** tab
4. Click **Upload Files**
5. Select the desired **GeoTiff**
6. Enter the **Acquisition Date** of the imagery
7. Enter an appropriate **Name** for the imagery
8. Click **Finish** when pop-up confirms import is finished
9. Review upload images at the field level by click **GIS** tab > **show layers** (🌐)> **available layers** (⚙) > expand **Imagery** dropdown > check off **Geotiffs** > click **Save**

All geotiffs less than 500mb are accepted in the software, however Slantrane imagery currently has the only support legend. Also, please note that uploading of UAV Imagery **Requires** a field boundary.

0.4.c

Yield Data Upload / Cleaning

Yield| Cleaning
FARMER CORE ONBOARDING
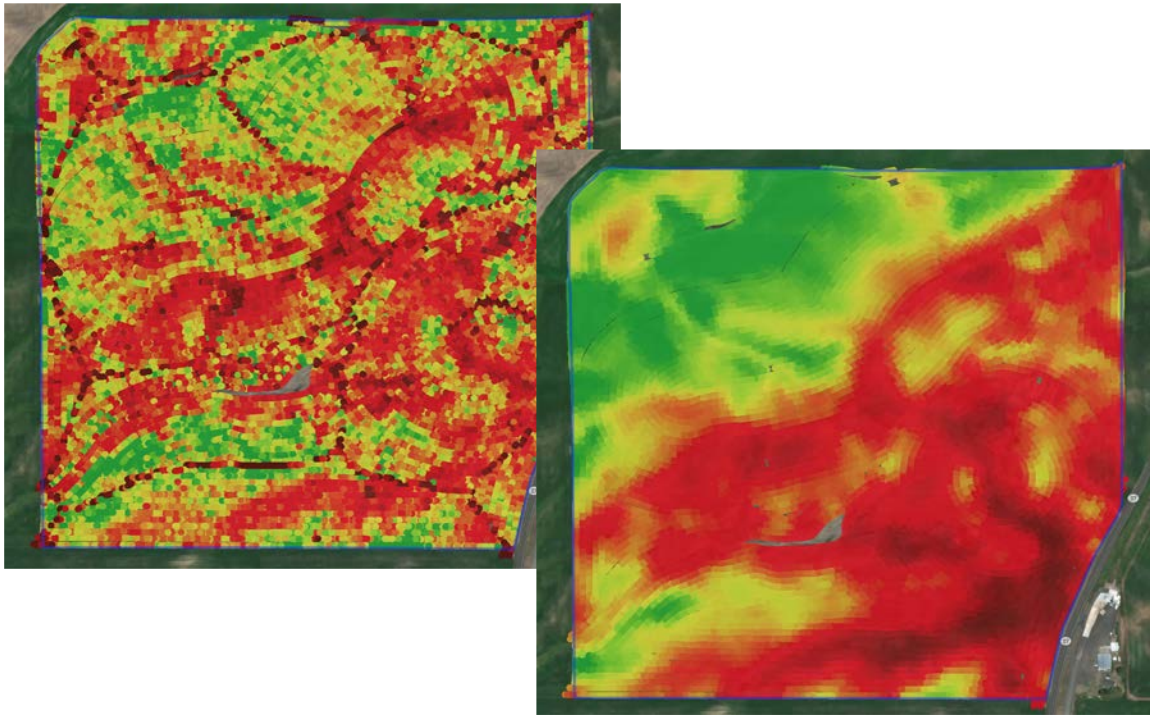
1. Eliminate Problematic Points
   - GPS Errors
   - Moisture sensor issues
   - Flow delay issues
   - Overlap passes
   - Speed and flow issues
2. Calibration between harvesters
   - Make relative adjustment
   - Use the offset entered by the user
3. Application of the scale ticket
   - If available by the user, scale ticket is distributed throughout the field to adjust actual productivity
4. Interpolation and Normalization

Watch this video to learn more.

Online | Import Data (RAW Yield)
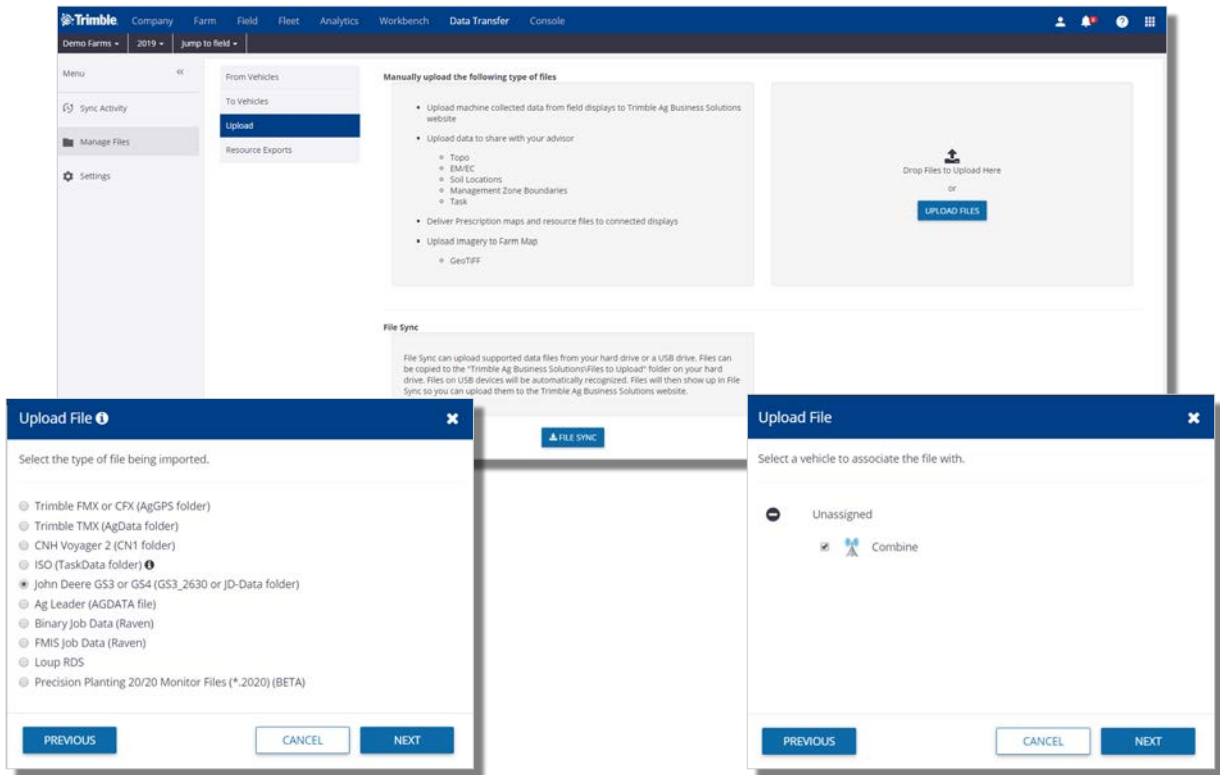
1. Go to the **Data Transfer** tab (top menu)
2. Select **Manage Files**
3. Click **Upload** tab
4. Click **Upload Files**
   ○ navigate to raw harvest data from display
5. Select your **Data Type** (File should be zipped with right structure)
6. Choose: File from a display to be imported into Trimble Ag Business Solutions website
7. Select **Combine/Vehicle** (Make sure it was added in Vehicles)
8. Click **Finish** when pop-up confirms import is finished

Imported Harvest Data task can then be viewed in the Fields > Equipment Activity section.

Notes before importing Harvest Shapefiles: When importing yield data from a shapefile, we need to assist the software in identifying the proper attribute in each dropdown listed in the Upload Shapefile pop out box as well as the appropriate unit of measurement for that attribute.

1. Please be aware that attribute titles may vary depending on the display used. For example, Engaged may be called "Engaged" or "Status" or "Header Status", depending on the display.

Online | Import Yield from Shapefile

FARMER CORE ONBOARDING

1. Go to the **Data Transfer** tab (top menu)
2. Select **Manage Files**
3. Click **Upload** tab
4. Click **Upload Files**
   - navigate to harvest data shapefile(shp, shx, dbf are required)
5. Select "**Task**" as the shapefile type
6. Use the dropdown menus to identify the relative **attributes** associated with the **Yield Data.**
   - Ideal attributes to identify for optimal cleaning:
     - **Flow**, **Moisture**, **Width**, **Engaged**, **Wet Yield Mass**
   - Required field is **Timestamp**
7. Click "**Create Task File…**"
8. Select the appropriate **Field** for the Harvest Data
9. Fill in the remaining Task details
   - Choose a **Crop Zone** (if one does not exist then use the **Plus** symbol to add one)
   - Choose **Harvest** for the **Operation**
   - Choose the appropriate **Start** and **End** date
   - click **Add Vehicle** to attach a **Combine** to the task
   - All other details are optional.
10. Click **Save**
11. Resulting yield data will be available under Field > Equipment activity.

![Trimble]

Yield Cleaning

After you have brought the yield data to the System through the API connection, Vehicle Sync or Manual import, follow these steps:

1. Click **Field** > **Equipment Activities**
2. Use the filter options to find and click on the desired **Harvest Task**
3. At the bottom of the page, click **Clean Yield**
4. Enter the desired calibrations
   a. If there were **multiple** combines used to collect the harvest data, use the **"Adjustment %"** fields to make the adjustments between combines.
   b. For single combines, or Multi combines with an unknown "Adjustment %", enter the **Scale Ticket** information in the **Total Yield** section
   c. Click **Save**
5. Click **Verify Task** for the new data to take effect in the system.
6. **Cleaned Yield** results can be viewed in the following places:
   a. In the fields **GIS tab**, under both the **Task** and **Yield** sections
   b. **Equipment Activity** > click the **Harvest task** > use the dropdown menu to select the **Calibrated** and **Normalize** layers.
   c. **Zone** section of **Workbench** (for Prime users)

Click on the **Verify Task** button to then push the newly created Harvest layer into the **Harvest Data** tab for that field.

Watch this video to learn more.

0.5

Post-Season Application Data and Reports

Online | New Field Manager

Objective: Understand how you can view application data and manually add application tasks into the software.

In this session you will learn:

- ○ View the New Field Manager
- ○ Add a product application using the New Field Manager
- ○ Add a product application using the Legacy Field Manager
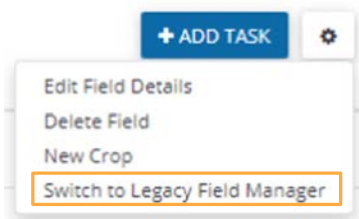
- ○ Add a product application on Mobile App
- ○ Use Farm Calendar

Online | New Field Manager

FARMER CORE ONBOARDING
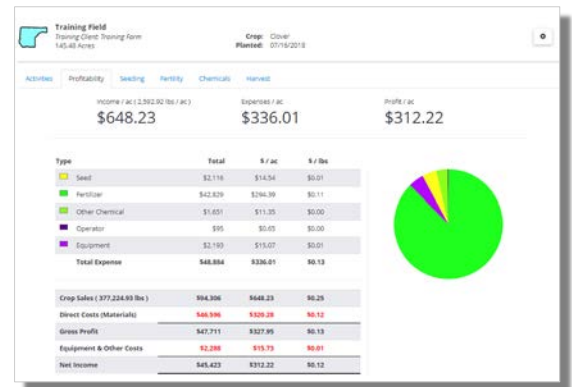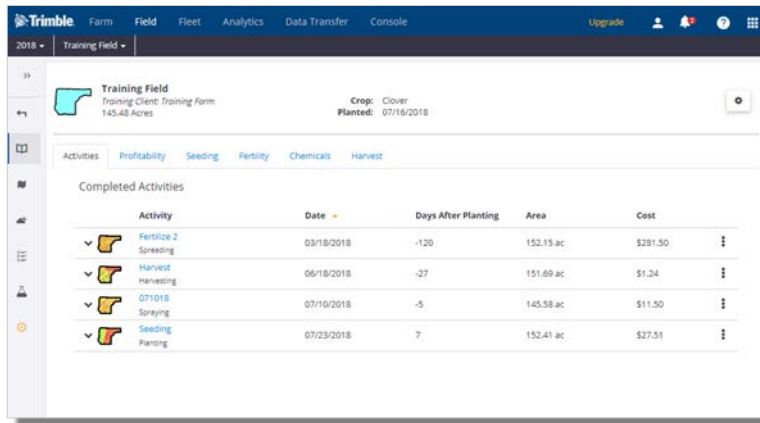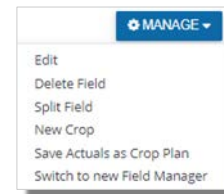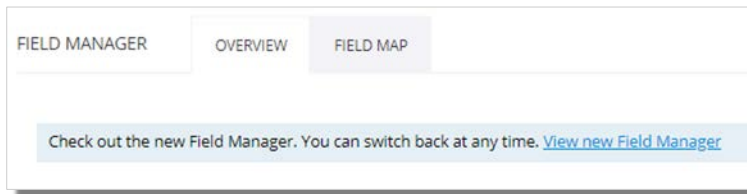
Using the New Field Manager

1. From **Field Profiler >** click on the desired field
2. If the Legacy Field Manager opens, select the link to View new Field Manager (or click the Manage button and select Switch to new Field Manger)
3. The Activities tab lists a summary of the Completed Activities for the selected field that have been verified on the Equipment Activity tab or added manually.
   - The Show incomplete option can be activated to include incomplete tasks
   - Expand any activity to see more details
4. The Profitability tab summarizes expenses and income for the field, categorized into expense type.
   - This information can be extremely valuable - cost information must be entered in the materials, equipment, and people properties to view total expense calculations

▶ Watch this video to learn more.

# Online | New Field Manager

FARMER CORE ONBOARDING

Using the Activity tabs

1. The Seeding, Fertility, Chemicals, and Harvest tabs summarize the field activities in each of these areas
2. Click the more button ⋮ on the right edge of any of these activities for additional actions
   - ○ View Summary
     - ■ Inputs view, map view, and yield cleaning for harvest activities
   - ○ View Report
     - ■ the Proof of Placement report for the activity
   - ○ Edit
   - ○ Delete

Watch this video to learn more.

Online | New Field Manager

FARMER CORE ONBOARDING
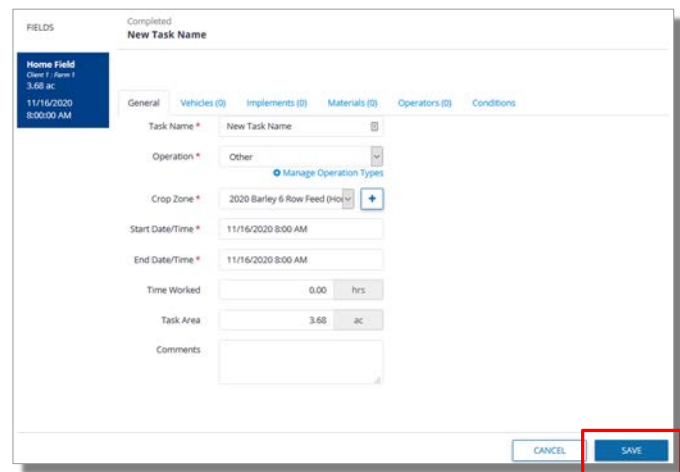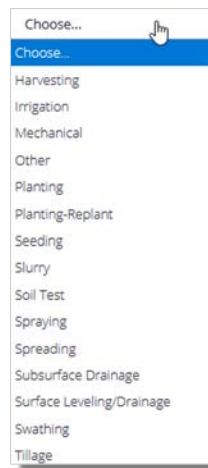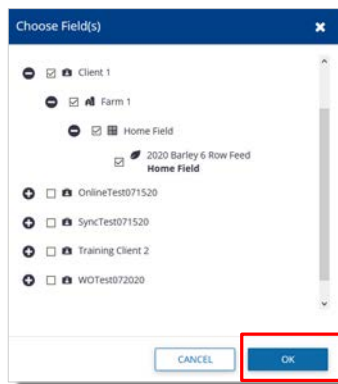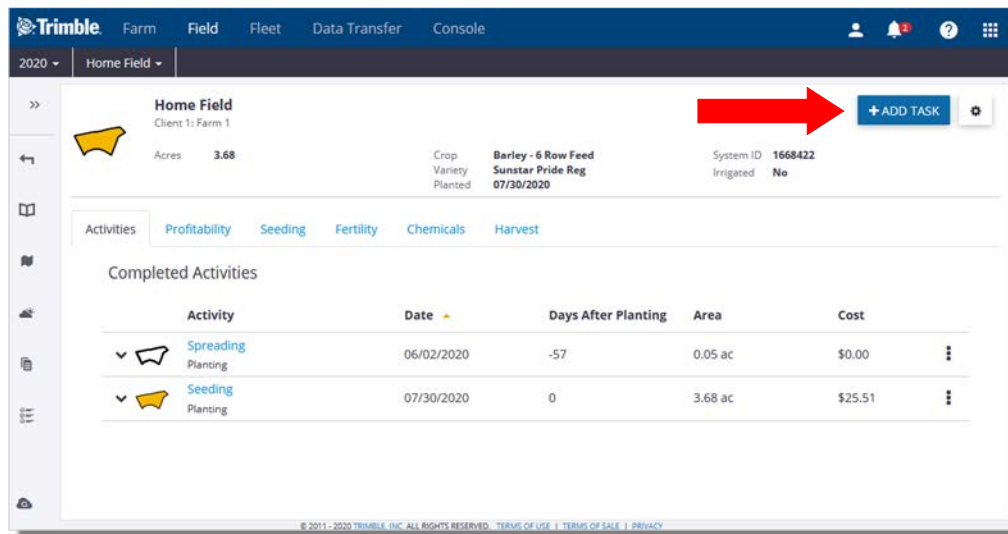
Manually add a task

1. From **Field Profiler >** click on the desired field
2. Click the Add Task button in the upper right corner
3. Confirm the field selection on the Choose Field window
4. Enter the details on the General Tab for the new task.
   - Enter a Task Name
   - Select an Operation type from the drop down menu
   - Fill in remaining details as needed on the Vehicles, Implements, Materials, Operators, and Conditions tab.
5. Click the Save button to save the new task.

Mobile| Adding Tasks
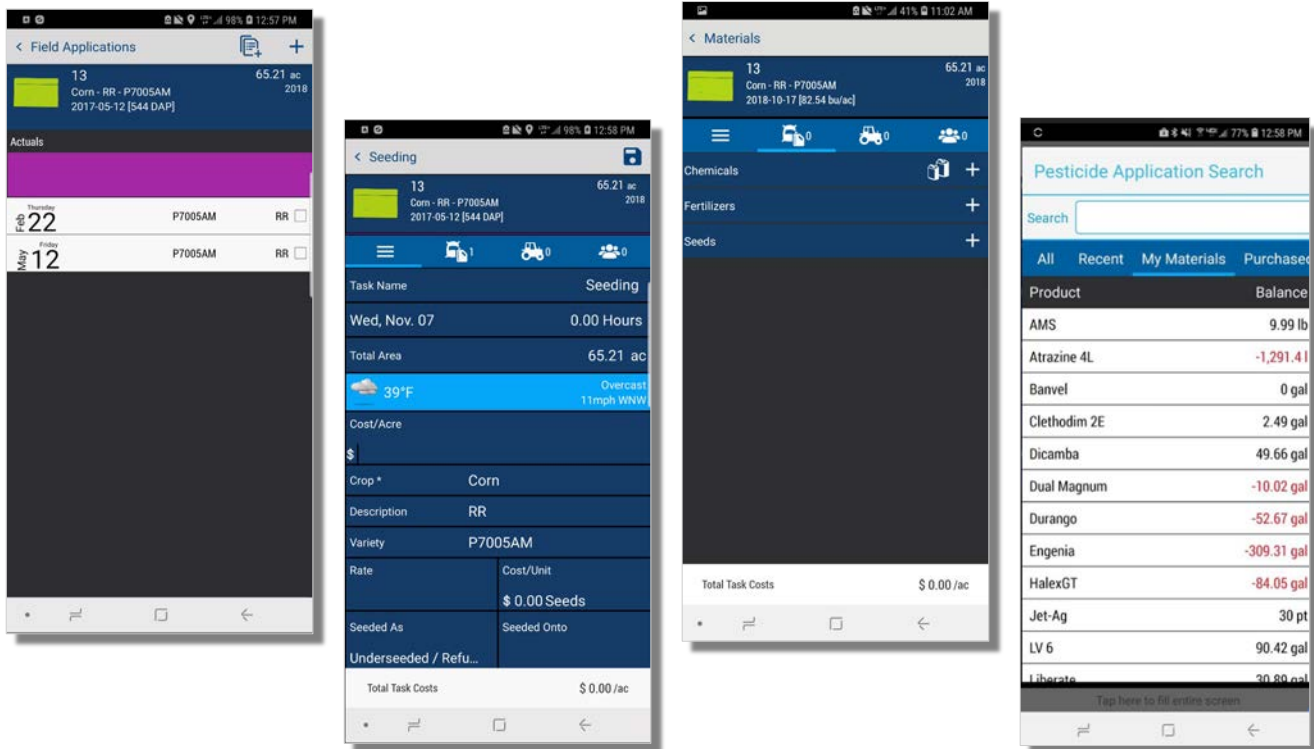
1. Tap into the desired **Field**
2. Tap the desired **Input** tile
   - Fill in task details (Seeding, Fertility, Crop Protection, or Harvest)
   - Tap **Input** tab ( ) to add a **new** input
     - Tap the **plus** symbol beside the input type to choose input
       - Select **My Materials** to review the **Balance** of existing purchased materials
   - Tap **Equipment** tab ( ) to add **equipment** to application
     - Tap the **plus** symbol beside the **equipment** type to choose equipment
   - Tap **Operator** tab ( ) to add **operator** to application
     - Tap the **plus** symbol in top right corner of the app to add a **operator** to the application
   - click **Save**

Please note for **material balances** to show up, you must have previously documented purchase in **Online** or **Mobile**. For **equipment** or **operators** to show up as options in mobile, you must have set these up in the online software first. See slides

▶ Watch this video to learn more.

Trimble

Online | New Field Manager
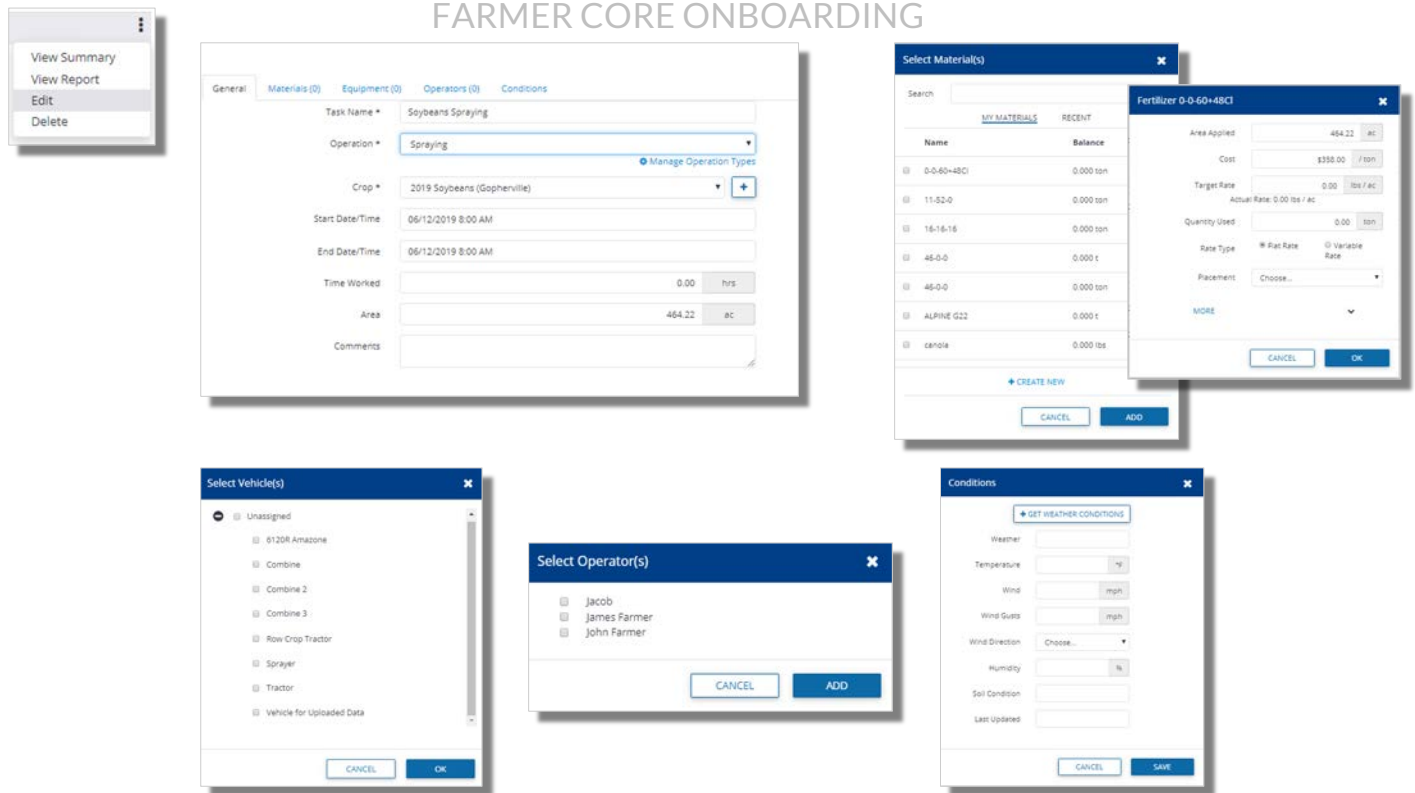
Edit a Task

1. Click the **More** button(⋮) from any task item and select Edit
2. On the General tab, select what **Operation** you want to perform, **Crop** and **Date**
    ○ For this practice we selected Spraying and we will add a Fertilizer
3. Select the **Material** tab to edit or click **Add** to add more materials to the task
4. You can **Search** for Material, **Select** one from the list or even **Add** a new Material and click **Save**
    ○ Make Sure you Add **Target Rate** and **Placement Type**
    ○ **Quantity Used** will be calculated based on the Acres and Rate
    ○ Click in More if you want to add **Pass** Number and **Tank,** and then click **OK**
5. Go to **Equipment** tab and click **Add** to enter **y**our Equipment and Implements for this task
6. Select the Vehicle from the list and Click OK.
7. Select the **Operator** tab, Add the Operator for this task
8. The **Conditions** tab allows you to enter the weather information.

▶ Watch this video to learn more.

Online | New Field Manager
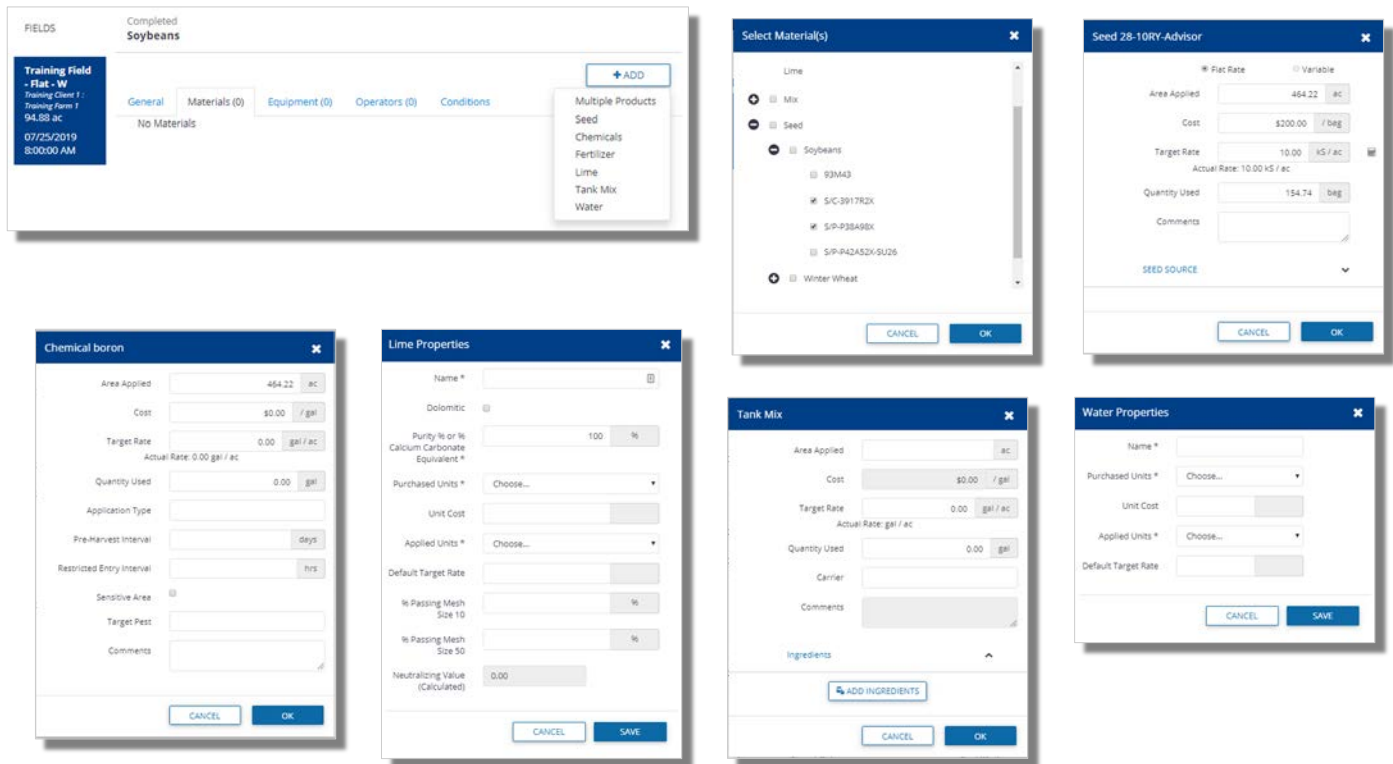
Other Materials can be added in the same way as Fertilizers

1. Multiple Products
   - Pick multiple products from the **Select Material(s)** window
2. Seed:
   - Make sure the the **Cost** and **Target Rate** is entered to have **Quantity Used** calculated
   - Click in **Seed Source** to add more details such as Seed Source, Lot, Spacing, Depth, Grade, Primary or UrderSeeded.
3. Chemicals:
   - Enter Pre-Harvest Interval or Restricted Entry Interval as needed
   - Identify Sensitive area as needed
4. Lime
5. Tank Mix:
   - For the Tank Mixes, you're allowed to create a Mix right from this Tab
   - Click on **Ingredients** to **ADD** Ingredients to your Mix
6. Water

Watch this video to learn more.

Online | New Field Manager

Edit a Harvest Task

1. Select the Harvesting tab from the Field Manager screen
2. Click the **More** button (⋮) on the harvest task item and select Edit
3. Enter the relevant task information on the General tab.
4. Click on the harvest line item to open the Harvest details window.
   - Enter Area Harvested, Price, Average Yield or Quantity Harvested, then click OK
5. Click Save to save the harvest task.

Watch this video to learn more.

Online | Legacy Field Manager

1. Click into a **Field** through the **Jump to Field** quick search bar or by clicking **Field** > **Field Profiler** > click **desired field**
2. Click in the **Engine** button (⚙) to Switch back to Legacy Field Manager
3. Click the **Add New** button for **Fertilizers**
   - Date: **Application date**
   - Placement/Type: **Band/Dry**
   - Product: **11-52-0 (Dry)**
   - Price: **$29.26/acre**
   - Acres: **enter as-applied acres**
   - Rate: **160 lbs/acre**
   - Click **Add Application**
4. Click the **Add New** button( ) for **Chemicals**
   - **Application Type: Ground**
   - **Product: Sortan IS**
   - **Cost/Unit: $874/jug**
   - **Rate: 85 ac/jug**
   - Click **Add Application**

Online | Reviewing Applications
FARMER CORE ONBOARDING

1. Click into a **Field** through the **Jump to Field** quick search bar or by clicking **Field** > **Field Profiler** > click **desired field**
2. **Field Details** can be edited by clicking **Manage** > **Edit**
   - After edits have been made, click **Save**
3. **Expense Breakdown** area is a summary of the costs associated with each field event. These costs make of the fields **Cost of Production (COP)**
4. All other areas below the expense breakdown are the various **Field Events.** Click the **Edit icon** ( ) to edit any of the **Event** details**.**

Please note that if you have Verified any task data through the Equipment Activity page then your event details will auto fill in this area as well.

Online | Proof of Placement Reports

FARMER CORE ONBOARDING

1. If application information is uploaded via equipment activity, you can also print a **Proof of Placement** report for infield applications, which would also include the uploaded coverage map
   ○ After **verifying** the task in equipment activity, go to the **Field Manager**
2. Click **View Report** from the options button for that activity

Online | Bulk Proof of Placement Reports

FARMER CORE ONBOARDING
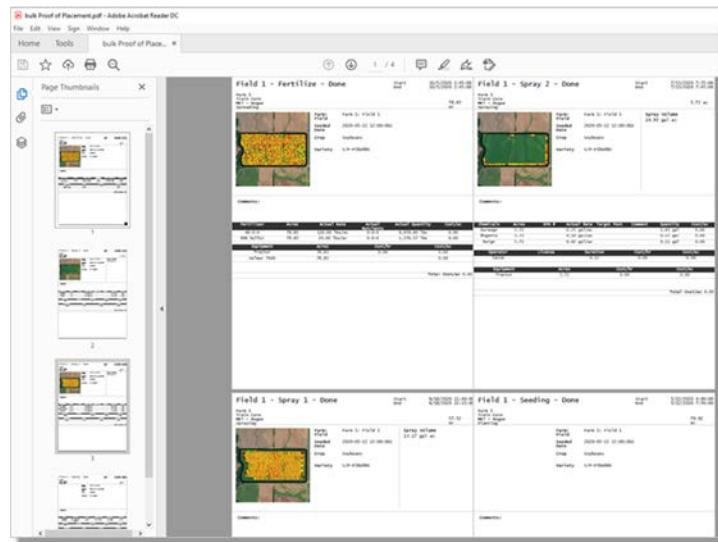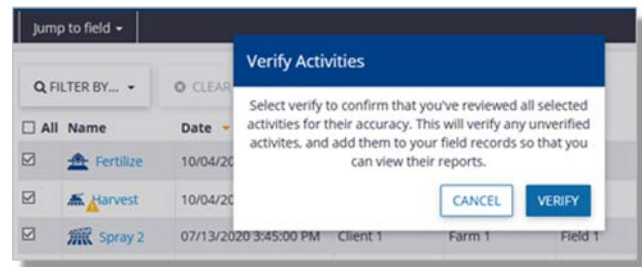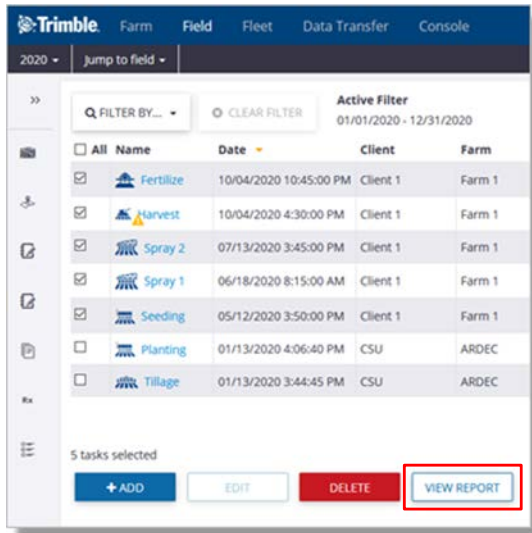
1. Open the **Equipment Activity** tab (Field>Equipment Activity)
2. Select the desired tasks with a check mark
    - all tasks for the report will need to be verified so that the system can generate the proof of placement pdf reports. If the Verify Activities window opens, select cancel or verify as appropriate
3. Click the View Report button
4. All selected task reports will then be compiled into one **pdf document**.

0.6

Coverage Maps and Guidance Lines

Online | GIS tools

FARMER CORE ONBOARDING

Show/Hide Layer menu

Background imagery options

Open Layer Manager

Layer Options
- Edit (if an option)
- Toggle Transparency
- Layer legend (if available)
- Delete Layer
- Move Layer Order
- Zoom to Layer

**GIS Editing Tools** (used when editing Zones or Field Boundaries):

Select

Draw Polygon

Measure

Add by Polygon

Split by line

Split by Circle

Delete Polygon

Color Picker

Edit Polygon

Draw Circle

Draw Freehand

Subtract by Polygon

Split by Polygon

Merge Polygons

Turn snapping on/off

Online | Map Layers

FARMER CORE ONBOARDING
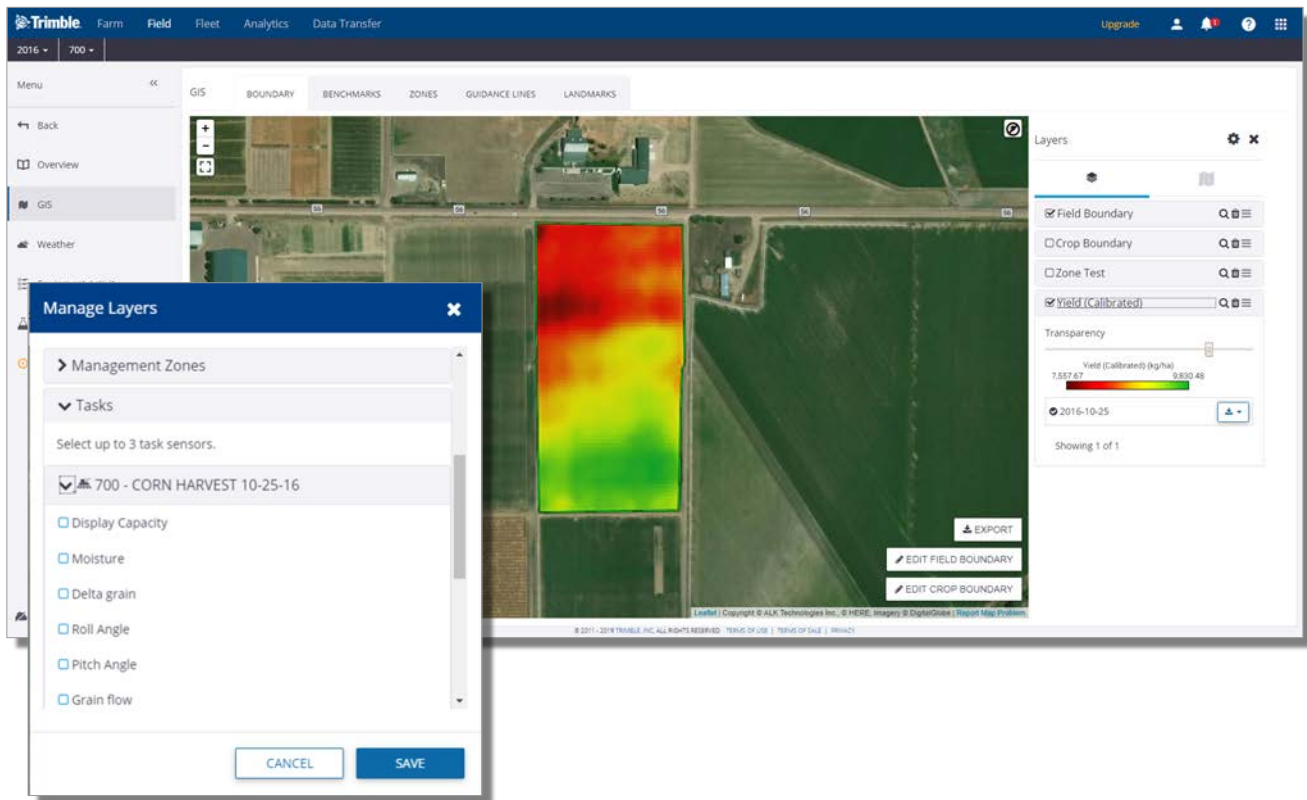
1. When at the **Field** level, click the **GIS** tab on the left side
2. Open the **Map Layers** tab by clicking the **Layers** button (⬚)
3. Click the gear button (⚙) to open the **Manage Layers** menu
   - **Check off** all layers you wish to add to the map > click **Save**
4. Click on the Layer in the Layer table to:
   - Review the Legend
   - Adjust Transparency
   - Chose layer dates (Task data, Yield data, CHI)
5. Use the following tools in the **Layer** list
   - (☰) **Move** the Layer Order
   - (🔍) **Zoom** to the Layer
   - (🗑) **Delete** Layer

Online | Guidance Lines
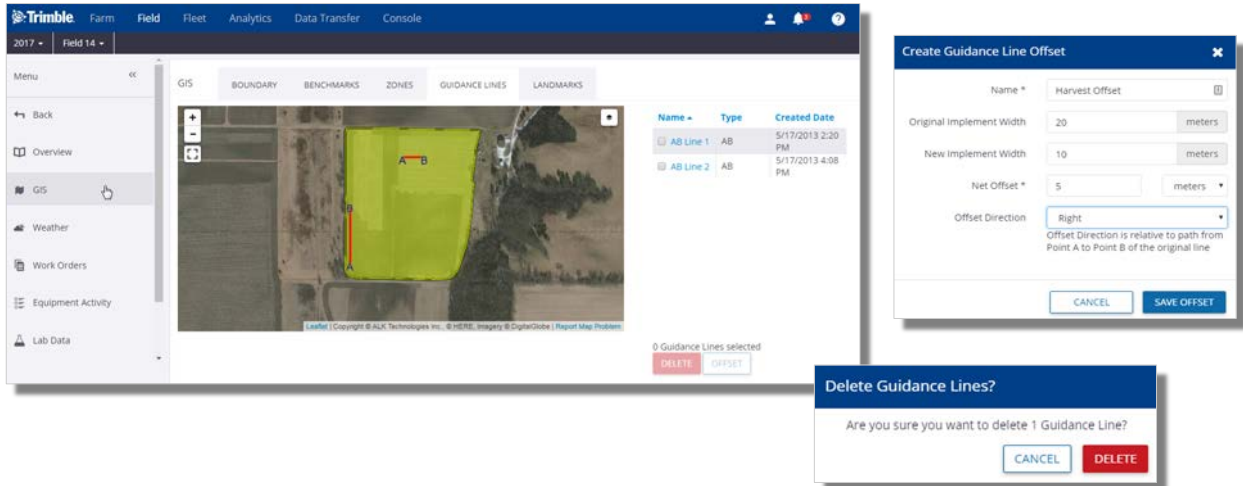
1. Click **Field** tab > **Select the Field**
   - Click the **GIS** tab > Select the Guidance Lines tab
   - To view **Guidance Line Properties**, click on the line name in the right hand column
2. To create an **Offset**
   - Place a checkmark next to the original line
   - Click the **Offset** button
   - Define the parameters in the **Create Guidance Line Offset** window, be sure to provide a relevant name for the new line.
3. To **Delete a** Guidance Line
   - Place a checkmark next to the original line
   - Click the **Delete** button
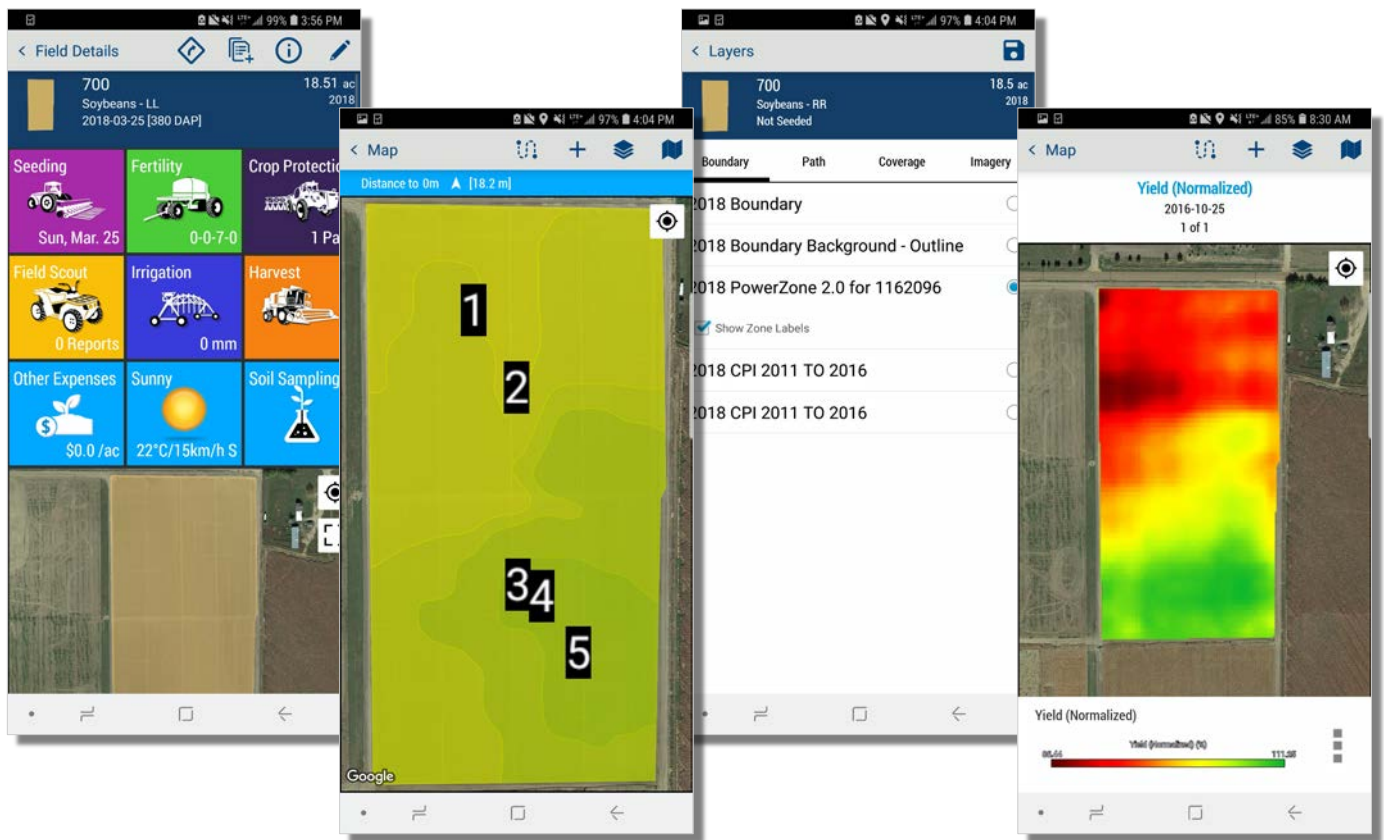
John Deere Guidance line update:

With the 6.50 release of Precision-IQ, John Deere runlines can be added to a field's data set. Using an Advanced Guidance 1 license in the display, a merge option has been added to Precision-IQ's Data Transfer feature. Use this option to transfer and merge a John Deere runline into an existing Precision-IQ field. Once merged, the line can be quickly calibrated and the lines will AutoSync between all connected devices and be accurately used in the field on any Precision-IQ display with the Advanced Guidance 1 licensed installed.

Watch this video to learn more.

Mobile | Map Layers

1. You can turn on various mapping layers from any of the mapping windows, ie. Field page, Scouting page, etc.
2. Tap the **Expand** button (⌣) > find and tap on the desired layer > tap **save**
3. Some surface layers have multiple layer options. Tap the 3 buttons (⋮) beside the legend to view other related layers.
4. For CHI, tap the **left** and **right** (‹ Crop Health Imagery 2018-10-14 17 of 21 ›) arrows to cycle between different imagery dates.
5. Tap the **Locate** button (◉) to zoom to your location
6. Tap the **Plus** symbol (+) to drop a **Benchmark** point
7. Tap the **Background layer** button (▣)to choose a different background image
8. Tap the **Path** button (⋓)to log a walked or driven path.
9. Tap the **Layer** button (♦) to open the layer menu so you may turn on a different surface layer, i.e Yield, Zone, CHI, etc.
   ○ Tap on the desired layer > tap **Save** to turn on a different layer

0.7

Desktop Sync (previous desktop customers)

Online| Sync from Desktop: Resources

FARMER CORE ONBOARDING
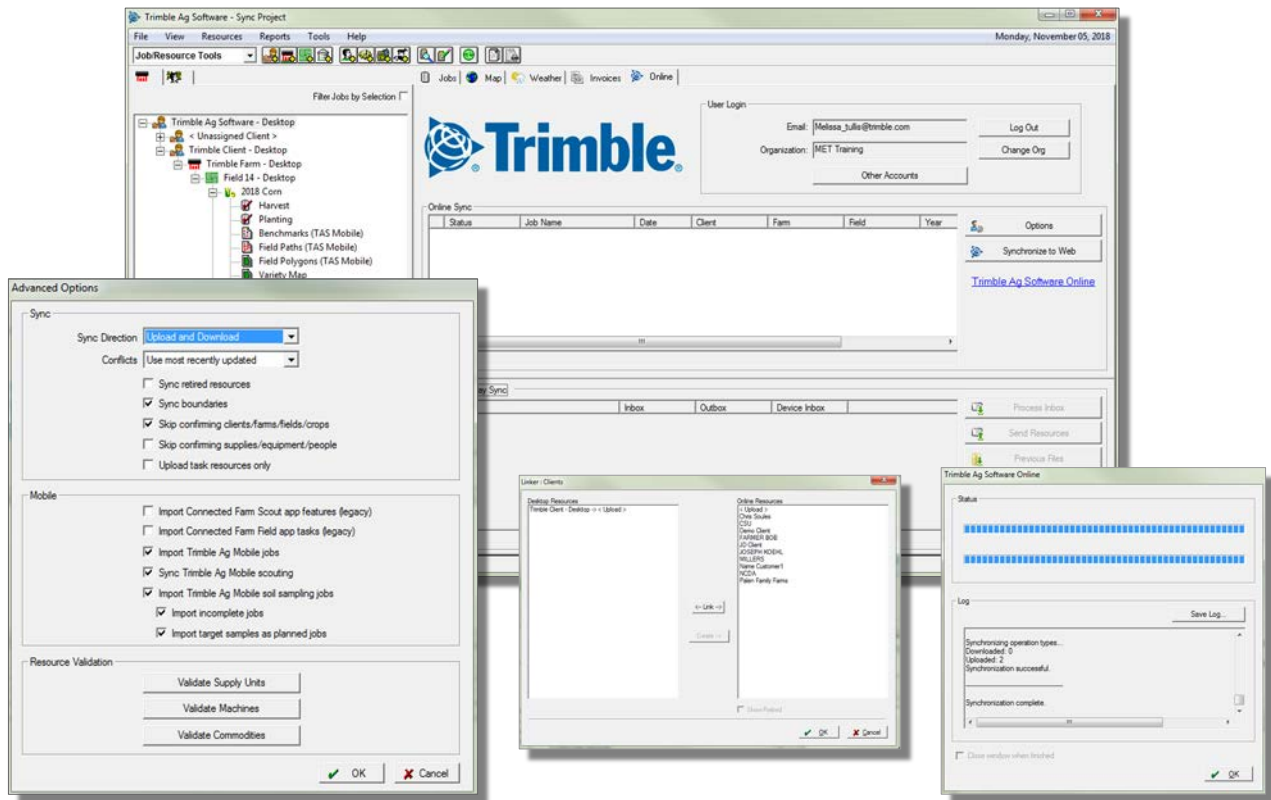
1. Open the Desktop Software
   - Click on the **Online** Tab
   - Enter the email address for your Online Account
   - Select the Organization with which you want to sync
2. Click **Options** in the Online Sync section
   - Configure the **Sync Direction**
   - Configure **Conflicts** for resolution priority
   - Configure Sync checkbox options
   - Configure Mobile checkbox options (only available if Upload and Download Sync Direction is selected)
   - **Validate Supply Units**, **Validate Machines**, and **Validate Commodities** to check for any differences in units used in Desktop and Online
   - Click OK to save the options
3. Click **Synchronize to Web**
   - Work through any Linker boxes that appear to process data from Desktop to Online and Online to Desktop as appropriate
   - The status window will track the progress of syncing
     - be sure to click **Save Log** if any errors were noted during the sync process the log may help with troubleshooting the cause of the error

The Resources sync includes Client, Farm, Field, Crops, Crop Enterprise, Machines, Operators, Inputs, Boundaries

Online| Sync from Desktop: Task Data

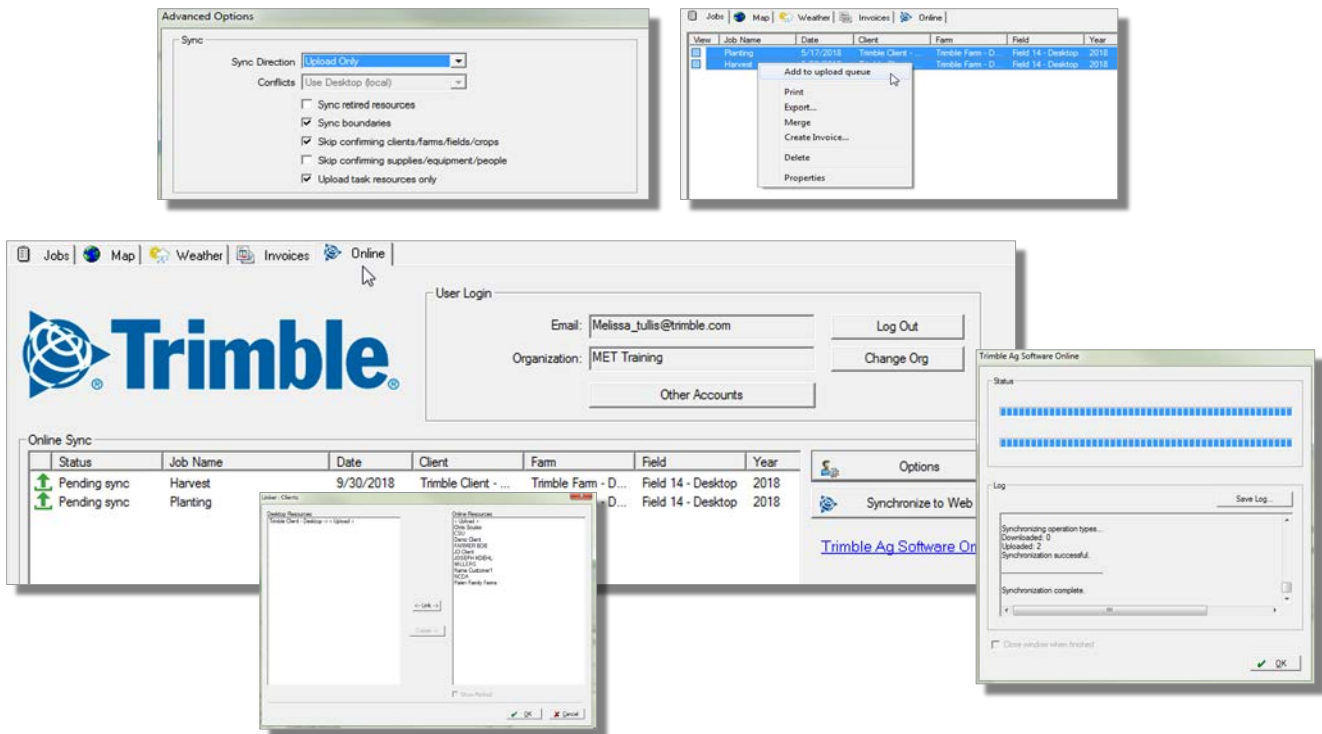FARMER CORE ONBOARDING

1. Open the Desktop Software
   - Click on the **Online** Tab
   - Enter the email address for your Online Account
   - Select the Organization with which you want to sync
2. Click Options in the Online Sync section
   - Configure the **Sync Direction**
   - Configure **Conflicts** for resolution priority
   - Configure Sync checkbox options
   - Configure Mobile checkbox options (only available if Upload and Download Sync Direction is selected)
   - **Validate Supply Units**, **Validate Machines**, and **Validate Commodities** to check for any differences in units used in Desktop and Online
   - Click OK to save the options
3. Click the Jobs tab
   - Right click on the task to sync - select Add to Upload Queue (use the CTRL key on the keyboard to select multiple tasks from the Jobs tab)
4. Click Synchronize to Web
   - Work through any Linker boxes that appear to process data from Desktop to Online and Online to Desktop as appropriate
   - The status window will track the progress of syncing

Task Data will sync to Online along with the Resources if the tasks have been added to the Upload Queue
1. There is an option to Upload task resources only that will limit the resources upload to only those related to the tasks that have been selected