

KINZE BLUE VANTAGE

OPERATOR'S MANUAL

M0288

Rev. 7/26

This manual is applicable to: Kinze Blue Vantage System

Record the serial numbers of your planter Blue Vantage system and the purchase date:

Service Tag _____

Date Purchased _____

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Kinze Manufacturing, Inc. thanks you for your patronage. We appreciate your confidence in Kinze farm machinery. Your Kinze planter has been carefully designed to provide dependable operation in return for your investment.

This manual has been prepared to aid you in the operation and maintenance of the planter. It should be considered a permanent part of the machine and remain with the machine when you sell it.

It is the responsibility of the user to read and understand the Operator's Manual in regard to safety, operation, lubrication, and maintenance before operation of this equipment. It is the user's responsibility to inspect and service the machine routinely as directed in the Operator Manual. We have attempted to cover all areas of safety, operation, lubrication and maintenance; however, there may be times when special care must be taken to fit your conditions.

Throughout this manual the symbol  and the words **DANGER**, **WARNING**, and **CAUTION** are used to call attention to safety information that if not followed, will or could result in death or injury. **NOTICE** and **NOTE** are used to call your attention to important information. The definition of each of these terms follows:

	Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations, typically for machine components which, for functional purposes, cannot be guarded.
	Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.
	Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
	Used to address safety practices not related to personal injury.

NOTE: Special point of information or machine adjustment instructions.

The Kinze Limited Warranty for your new machine is stated on the retail purchaser's copy of the Warranty And Delivery Receipt form. Additional copies of the Limited Warranty can be obtained through your Kinze Dealer.

The Warranty, within the warranty period, is provided as part of Kinze's support program for registered Kinze products which have been operated and maintained as described in this manual. Evidence of equipment abuse or modification beyond original factory specifications will void the warranty. Normal maintenance, service and repair is not covered by the Kinze warranty.

To register your Kinze product for warranty, a Warranty And Delivery Receipt form must be completed by the Kinze Dealer and signed by the retail purchaser, with copies to the Dealer, and to the retail purchaser. Registration must be completed and submitted to Kinze Manufacturing, Inc. within 5 business days of delivery of the Kinze product to the retail purchaser. Kinze Manufacturing, Inc. reserves the right to refuse warranty on serial numbered products which have not been properly registered.

If service or replacement of failed parts which are covered by the Limited Warranty are required, it is the user's responsibility to deliver the machine along with the retail purchaser's copy of the Warranty And Delivery Receipt to the Kinze Dealer for service. The Kinze warranty does not include cost of travel time, mileage or hauling. Any prior arrangement made between the Dealer and the retail purchaser in which the Dealer agrees to absorb all or part of this expense should be considered a courtesy to the retail purchaser.

Kinze warranty does not include cost of travel time, mileage, hauling, or labor.

BLUE VANTAGE

Once Blue Vantage has been properly set up, it can be ready to plant in three taps.

The Health screen provides all important planting and diagnostic information. The grower can observe row-by-row planting performance in real-time.

Blue Vantage provides fast and reliable communication with the planter and an easy-to-read, high-definition rugged touchscreen with touch, pinch, and zoom screen actions. The quick disconnect dock and USB ports allow for easy removal and data transfer.

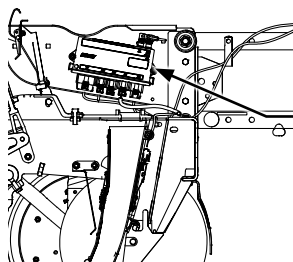
Blue Vantage is designed by Kinze for Kinze. One manufacturer for all components from the display in the cab to the high-speed Ethernet communications on the planter provides a complete solution that is ready to use immediately.

GENERAL INFORMATION

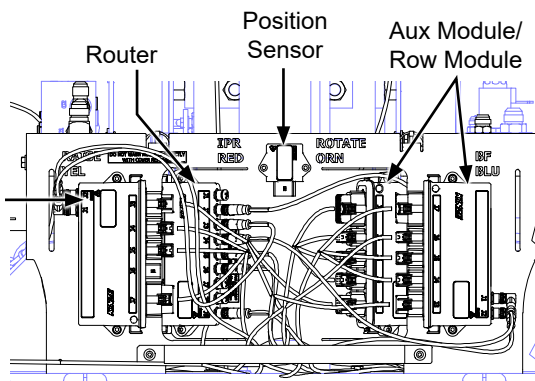
The information used in this manual was current at the time of printing. However, due to Kinze's ongoing product improvement, production changes may cause your planter control system display to appear or operate slightly differently in detail. Kinze Manufacturing, Inc. reserves the right to change specifications or design without notice and without incurring obligation to install the same on machines previously manufactured.

COMMON TERMINOLOGY

Planter Modules.



Aux Module/
Row Module



Accept. Selecting a check mark will save any changes and exit. This is known as accepting.

Cancel. Selecting an “x” will cancel any changes and exit. This is known as canceling.



+ Add. Selecting “+ Add” is typically used to add items to a list.



Number Entry. Tap to adjust numeric values.



Toggle. Selecting a side of this switch will select one option and disable the other option.



Edit. Tap to edit saved information.



Delete. Tap to clear and/or delete selected information.

With Blue Vantage almost everything can be tapped to select an item, perform an action, view more information, or open more controls.

POINTS OF PLANTING



Blue Vantage. Blue Vantage must be docked with power being supplied.

Planter Attached. A Blue Vantage compatible planter must be attached.

Aux Modules Ready. All expected aux modules must be in the discovered state.

Power Pack Ready. The power pack must be in either the “healthy” or “unhealthy active” states.

Row Modules Ready. All expected row modules must be in the discovered state.

If all five points of planting are true then the system is ready to plant.

PLANT - STEP 1

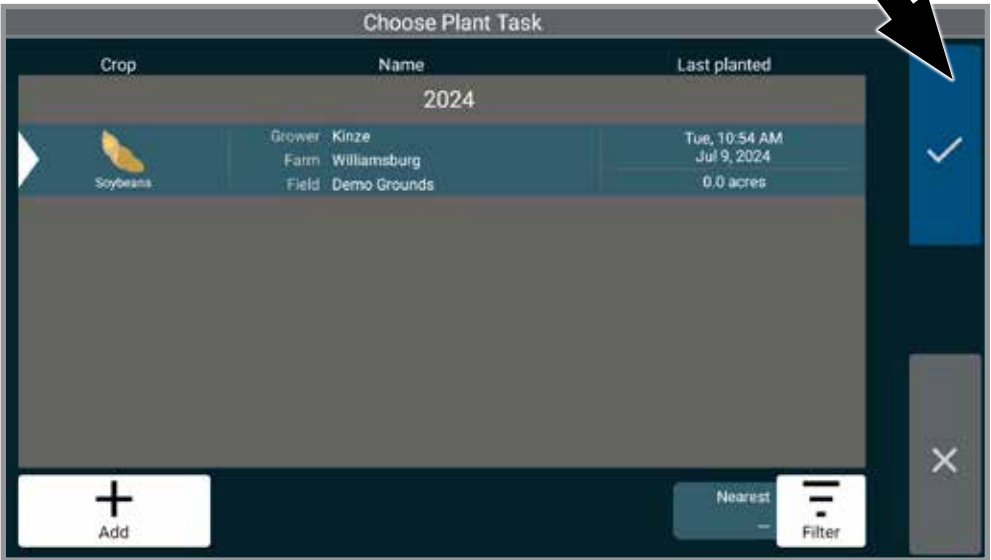
Points of planting
(See [Page 5](#) for details.)



Step 1 - Tap the Plant Button.

PLANT - STEP 2

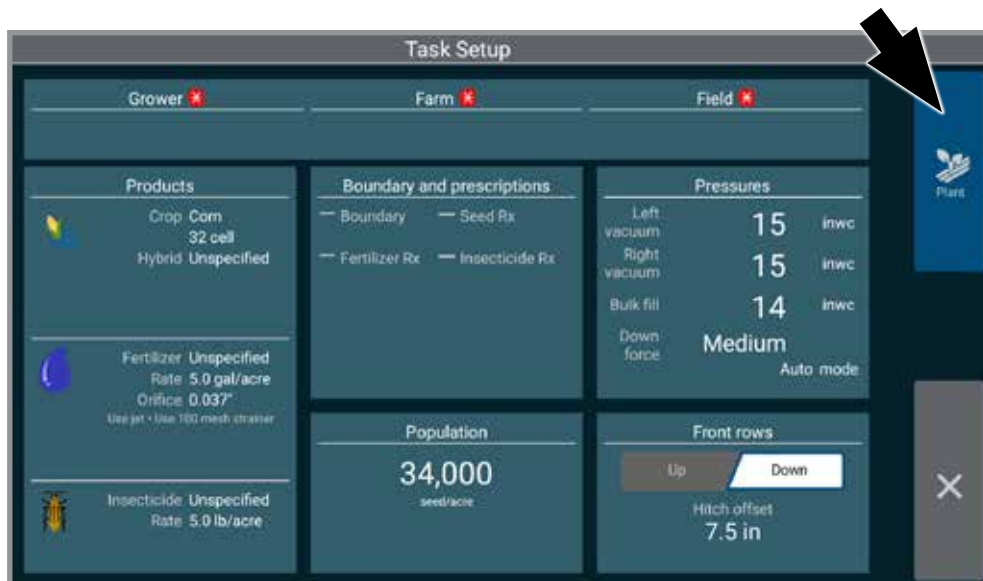
(See [Page 13](#) for Task Setup.)



Step 2 - Tap the task then Accept to Choose a Plant Task.

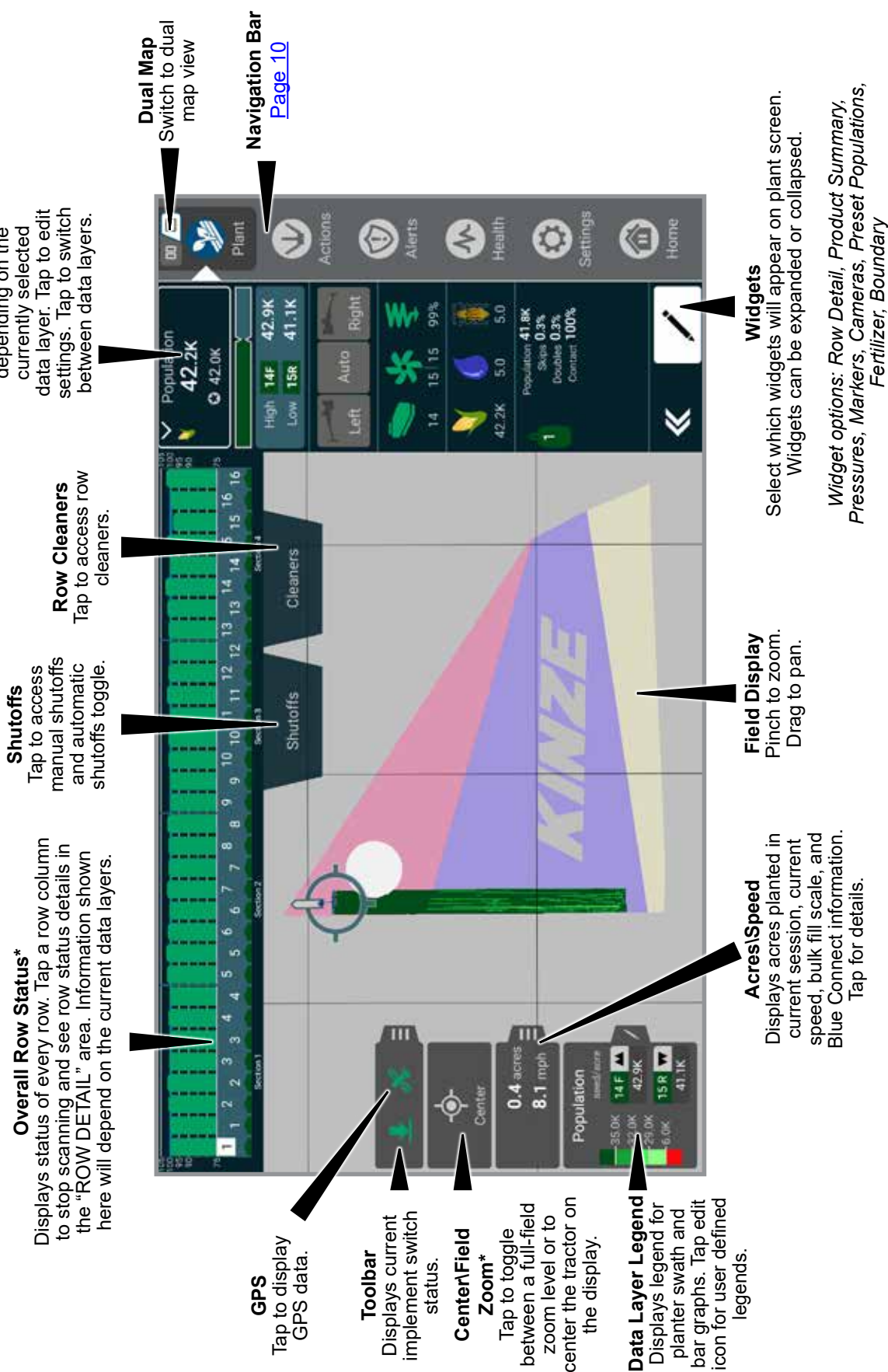
PLANT - STEP 3

(See [Page 14](#) for task setup.)



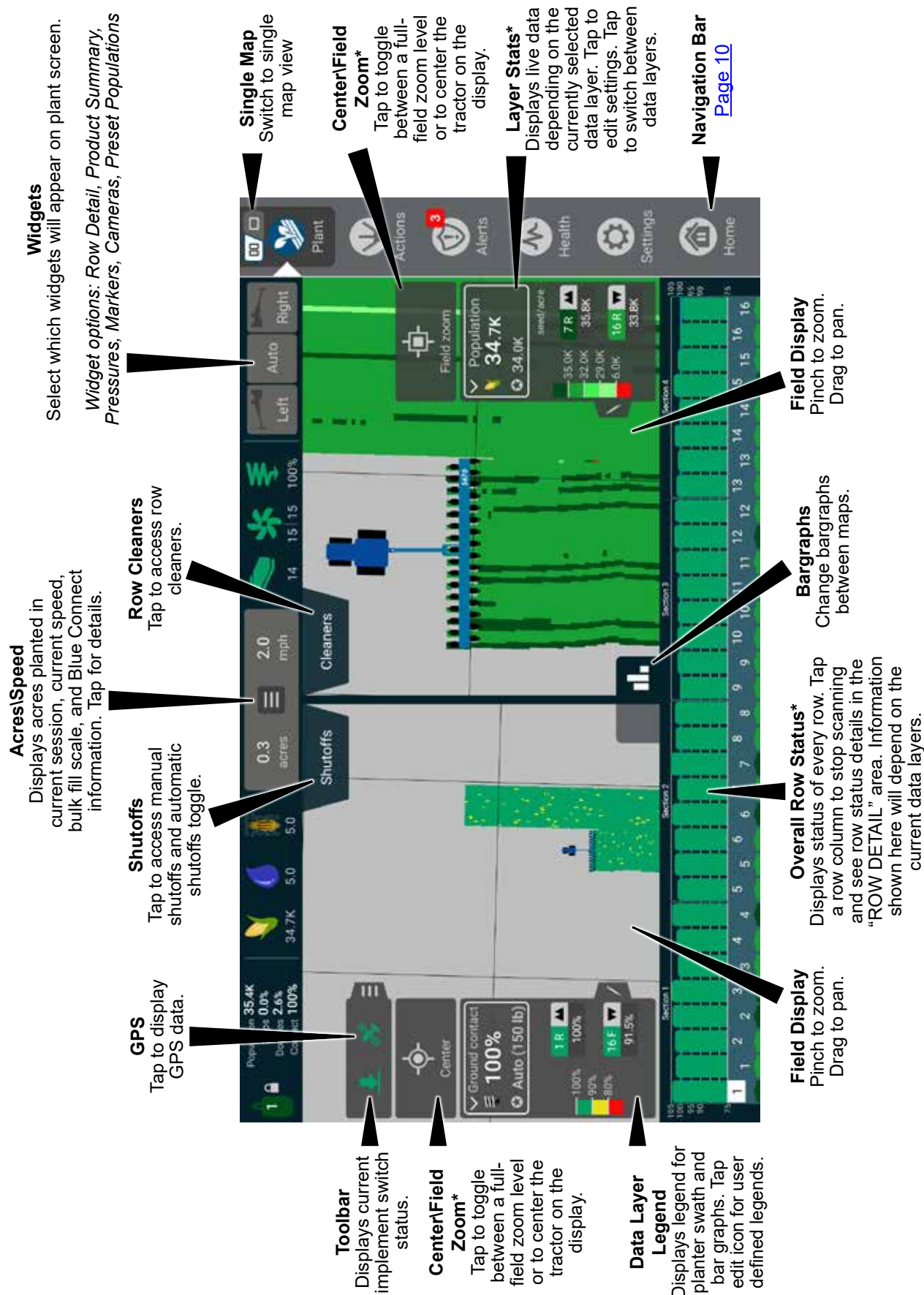
Step 3 - Tap the Plant Button.

(See next page for Plant Screen details.)



PLANT

* These options may appear differently depending on the current mode.



DUAL MAP PLANT

* These options may appear differently depending on the current mode.

NAVIGATION BAR

Plant. Begin task setup. All points of planting [Page 5](#) must have a “✓” in order to plant. The button will begin to pulse when ready to plant.

Actions. Control planter functions. [Page 32](#)

Alerts. Display Alerts History as well as Active Alerts. [Page 55](#)

Health. Display overview of all diagnostics on Blue Vantage. [Page 57](#)

Settings. Adjust various system and display settings. [Page 67](#)

Home. Display the Home Screen. [Page 6](#) Tapping the home button while in a task gives the option to pause the task.

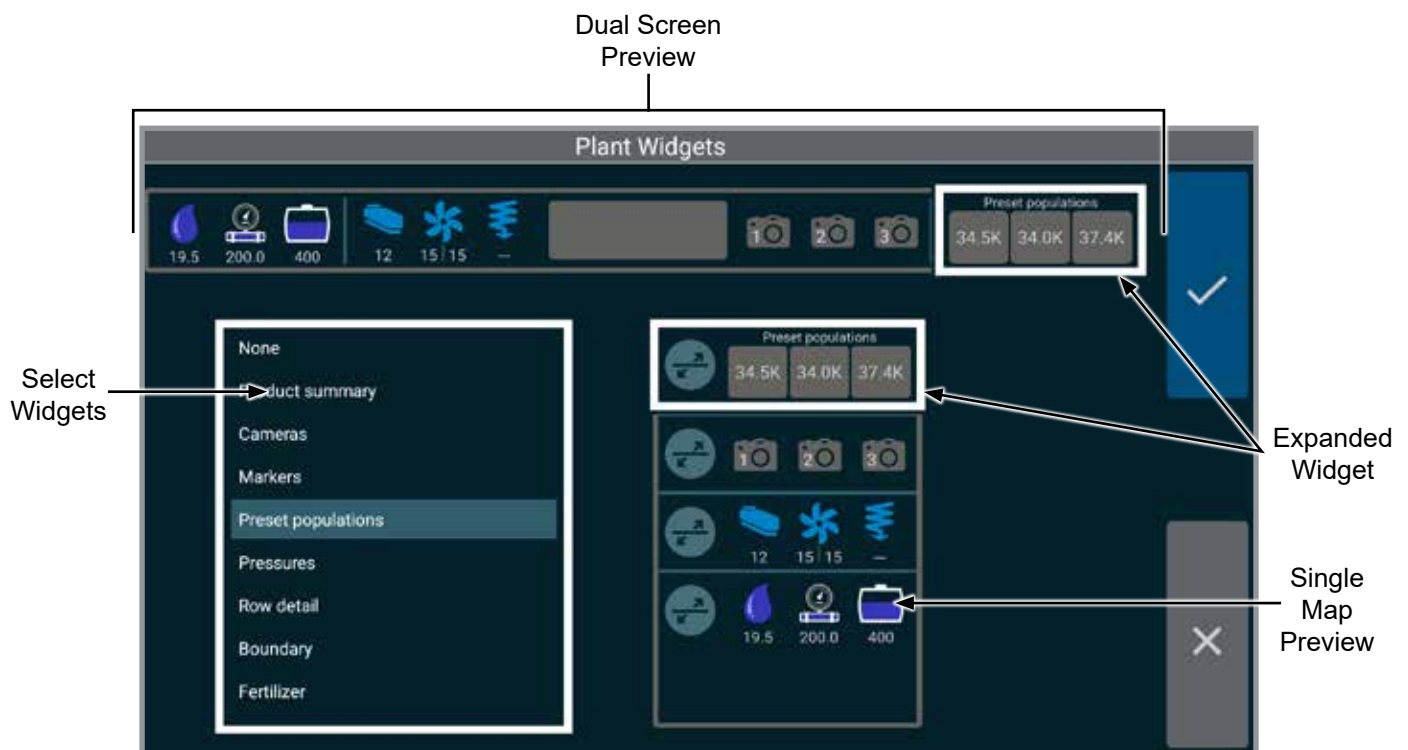


Home Tray. Manage Rx and boundary files as well as export reports or as-applied data. Other functions such as Grower/Farm/Field data, Cameras ([See “Cameras” on page 54](#)), and other information can be managed here as well. [See “Tasks” on page 79](#)

PLANT WIDGETS



Widgets. Select which widgets will appear on plant screen. Arrange order (1 to 4) widgets appear on screen. Widgets can be expanded or collapsed. Choose from: Row Detail, Product Summary, Pressures, Markers, Cameras, Preset Populations, Fertilizer, Boundary. Once widgets are selected you are able to preview how they will display on dual screen or single map mode before confirming selections.



NOTE: The widget that is selected number 1 will be expanded on dual map as long as it is expanded on single map.

TASK SETUP - GPS**GPS Setup**

GPS Baud Rate. Set the GPS baud rate to match the GPS settings.

NOTE: Kinze recommends configuring your GPS receiver baud rate to 115200. Make sure that the baud rate on Blue Vantage matches your receiver.

GPS Antenna Side. Change location settings of the GPS antenna.

Tractor Type. Change the tractor type: Traditional, Two-track or Articulated.

GPS Offsets. Supply the offsets between the GPS receiver and various points on the tractor.

NOTICE

Set the GPS Offsets to accurate values for best planting performance.

Note: This screen will not appear if the GPS has already been configured. However general GPS and tractor settings can be controlled from settings. ([Page 55](#))

[See “GPS Performance Factors” on page 94](#), for more detailed GPS information.

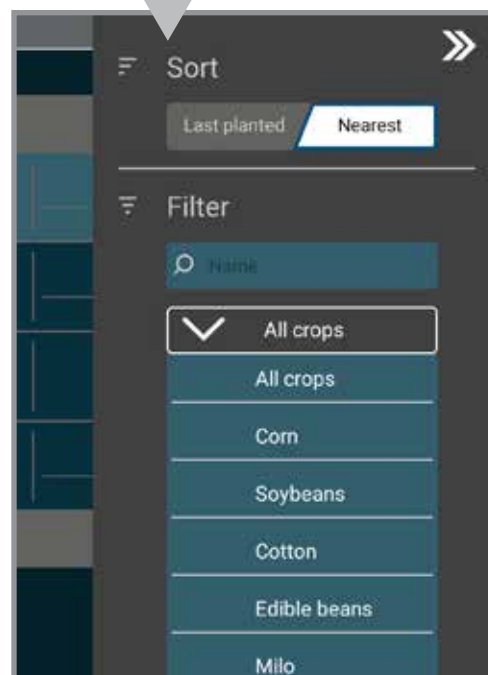
CHOOSE PLANT TASK



Plant (Existing Task)

From the Choose Plant Task screen, you can choose to resume a previous task or create a new task. To resume a previously created task, select it from the list and tap the accept button. Tasks are listed in the order they were last planted, with the most recent at the top of the list.

Sort by “Crop”, “Name”, or “Last Planted” by tapping “Filter”. If GPS is active, sort by nearest will sort all tasks based on proximity to the current GPS position.



TASK SETUP

Use Task Setup to enter all necessary task information. Correct task setup is critical for the highest performance of the system.

The screenshot shows the 'Task Setup' interface with the following details:

- Grower Tab:**
 - Products:** Crop: Corn, 32 cell, Hybrid: Unspecified.
 - Fertilizer:** Unspecified, Rate: 5.0 gal/acre, Orifice: 0.037", Use jet: Use 100 mesh strainer.
 - Insecticide:** Unspecified, Rate: 5.0 lb/acre.
- Farm Tab:**
 - Boundary and prescriptions:** Boundary: [checkbox], Seed Rx: 113 lb, Fertilizer Rx: [checkbox], Insecticide Rx: [checkbox].
- Field Tab:**
 - Pressures:** Left vacuum: 15 inwc, Right vacuum: 15 inwc, Bulk fill: 14 inwc, Down force: Medium, Auto mode.
 - Population:** Rx.
 - Front rows:** Up/Down toggle, Hitch offset: 7.5 in.

Task Setup

The task setup screen provides the ability to give detailed task information such as Products, Pressures, and Population.

Tap "Grower" to Begin Task Setup [Page 15](#)

Maps. [Page 22](#)

Products. [Page 17](#)

Population. [Page 20](#)

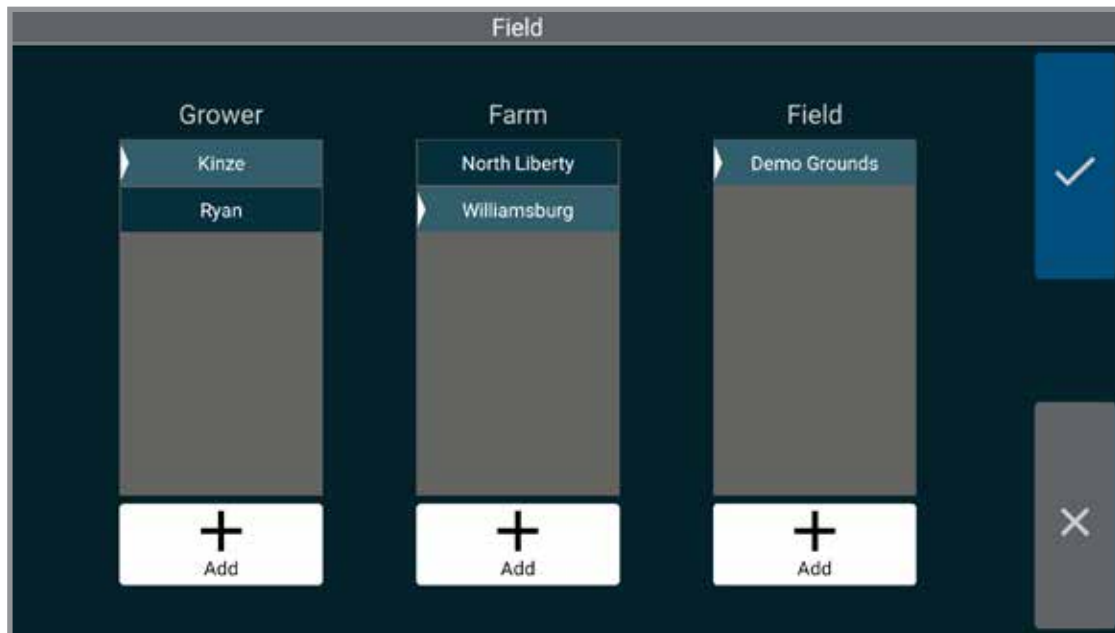
Pressures. [Page 23](#)

Front Rows. Indicates to the system whether the front rows are raised or lowered.

NOTE: This data can be accessed from the manage screen as well. Additional functions are available in the manage screen. [Page 79](#)

NOTE: When adding a new task, settings will default to the previous task used. See Grower/Farm/Field; [Page 15](#).

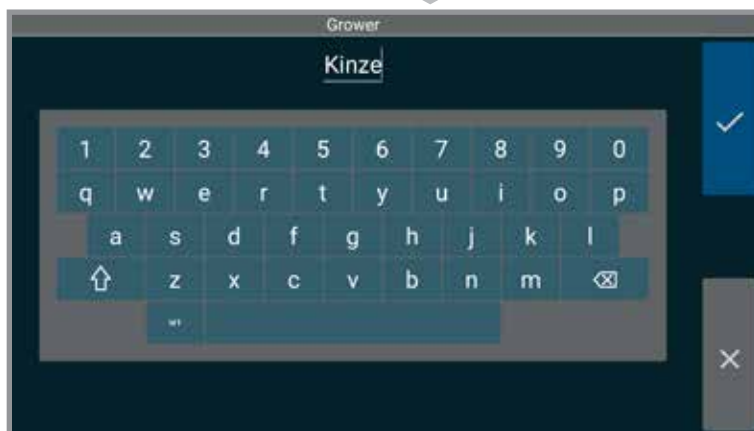
TASK SETUP - GROWER / FARM / FIELD



Add Grower, Farm, and Field:

Tap "+ Add".

Enter Grower information using keyboard.

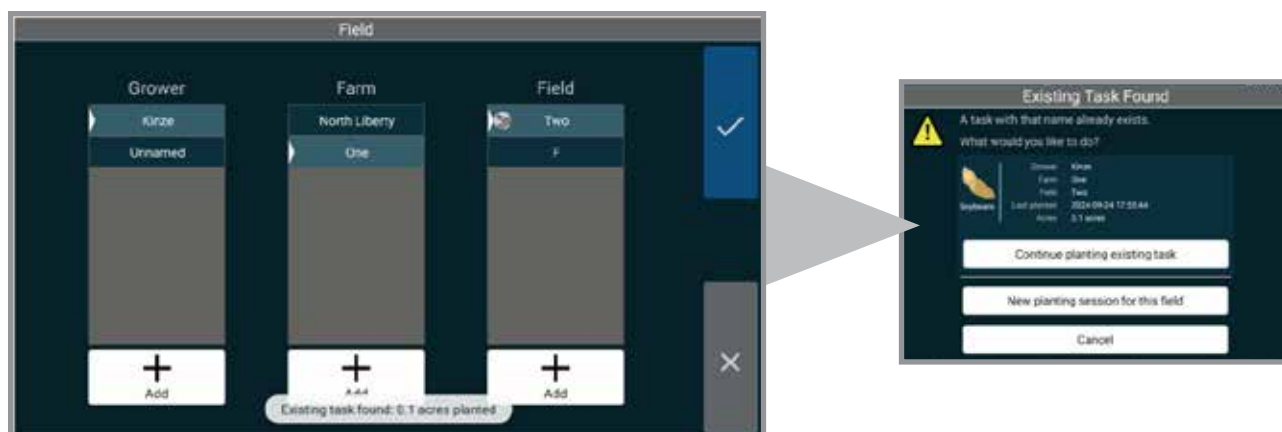


NOTE: If Grower, Farm, and Field are not added, they will be auto-populated:

Grower - "UNNAMED"
Farm - Current Date
Field - Current Time

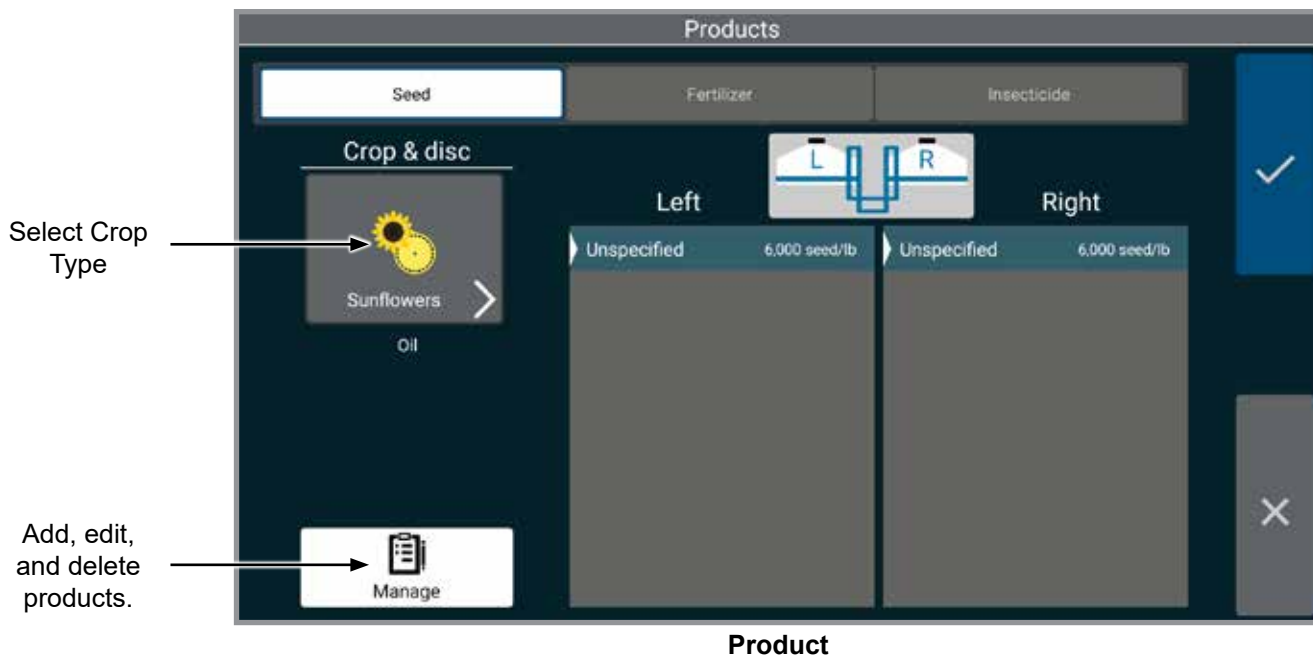
To Edit/Delete Grower, Farm, or Field; See [Page 79](#).





NOTE: If there is already an existing task started, you will have to select how you'd like to proceed.

TASK SETUP - PRODUCTS



Crop & Disc. Select a Crop type, then select Disc Size.

NOTE: Disc Size will only be available to edit if there is more than one option for the selected crop. It will still be shown if there is only one option.

Seed Hoppers. Select or add a product for each seed hopper.

NOTE: Any unique seed entered is listed under both tanks and can be selected independently for each tank.

Fertilizer / Insecticide. Displays the current product and tools to add products and display prescription maps. Turn the system on or off using the “On/Off” buttons.



Orifice

Select size of orifice that is being used. This option is only available when diaphragm pump system is being used, not centrifugal pump.

GPS Lost Rate

Enter the application rate to apply when GPS signal is lost.

Show Map

Displays the currently selected prescription map.

NOTE: Any of the above can be accessed during planting (if Data Layer is currently displaying “Fertilizer” or “Insecticide”). Tap on “Layer Stats” to view.

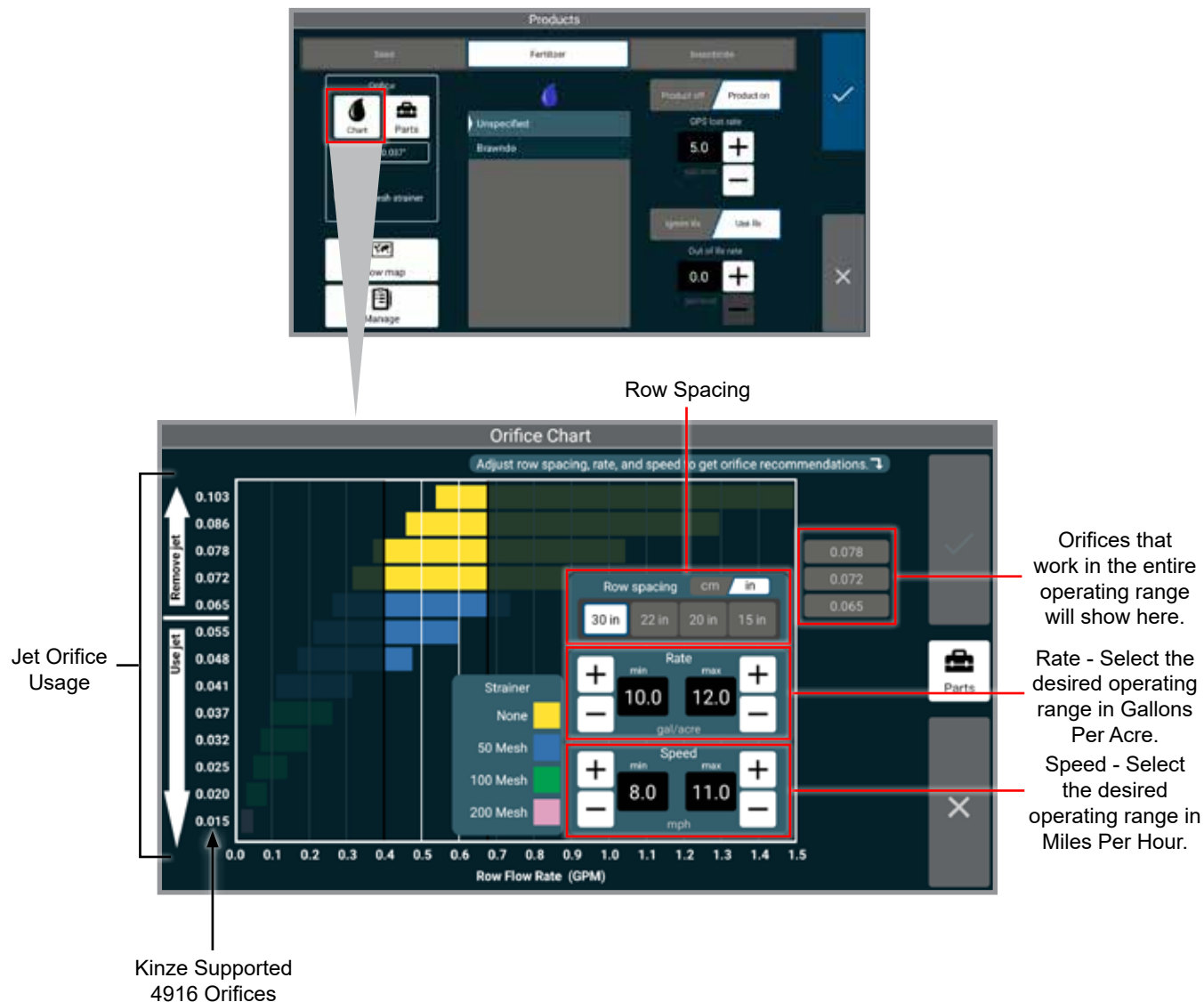
Insecticide “Manage”

Adjust density for a more accurate rate application. Perform a field check to determine application rates:

1. Fill insecticide and/or herbicide hoppers.
2. Place a container under hopper to catch the insecticide.
3. Push the manual run button until it times out. **NOTE: Insecticide will be delivered at 25 RPM for 10 seconds.**
4. Weigh insecticide in grams.
5. Multiply the number of grams by 1.1758 to get density.
6. If using multiple rows, average these numbers to get a more accurate value.

NOTE: Check calibration of all rows.

Interactive Rate Charts



TASK SETUP - POPULATION

Population range is specified based on crop selection.

Tap a preset to quickly select a frequently used population. Tap and hold on one of the preset buttons after manually adjusting the value in the upper fields to store the preset in that location.

Population

Select population control type from whole, split, by row, or Rx.

Split Population (shown in figure to right) provides the operator the ability to plant at different rates on each half of the planter.

NOTE: Population values will be saved with each task.

By Row Population (shown in figure to right) provides the operator the ability to plant at different rates for each individual rows. Planter summary will show the current state and population for every row, allowing the operator to apply the currently set whole population to every row. The switch allows you to turn each individual row on/off.

TASK SETUP - WHOLE / SPLIT / RX

The population screen will provide a fourth field if a prescription file is selected.

GPS Lost Rate. Enter the application rate to apply when GPS signal is lost.

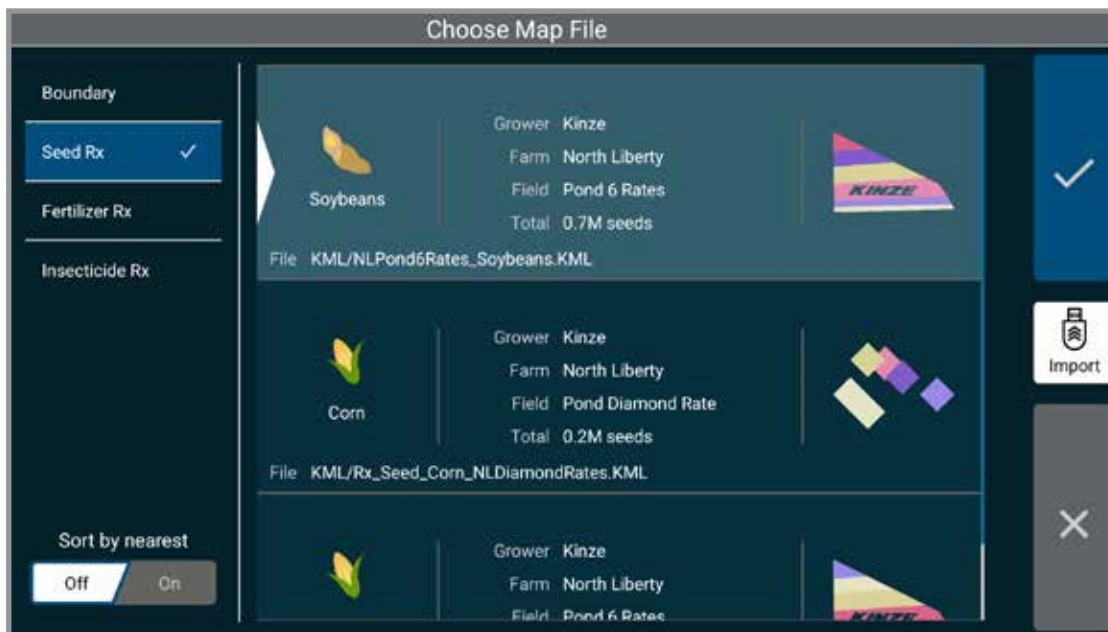
Out of RX Rate. Enter the application rate to apply while outside prescription zones but within boundary.

Show Map. Shows the currently selected prescription and boundary map. Turn off the prescription map by changing the population type.

Boundary File. Turn the boundary on/off.

RX Adjustment. All RX Populations are changed by percentage. Adjust a prescription to as low as 1% of original or as high as 199% of original.

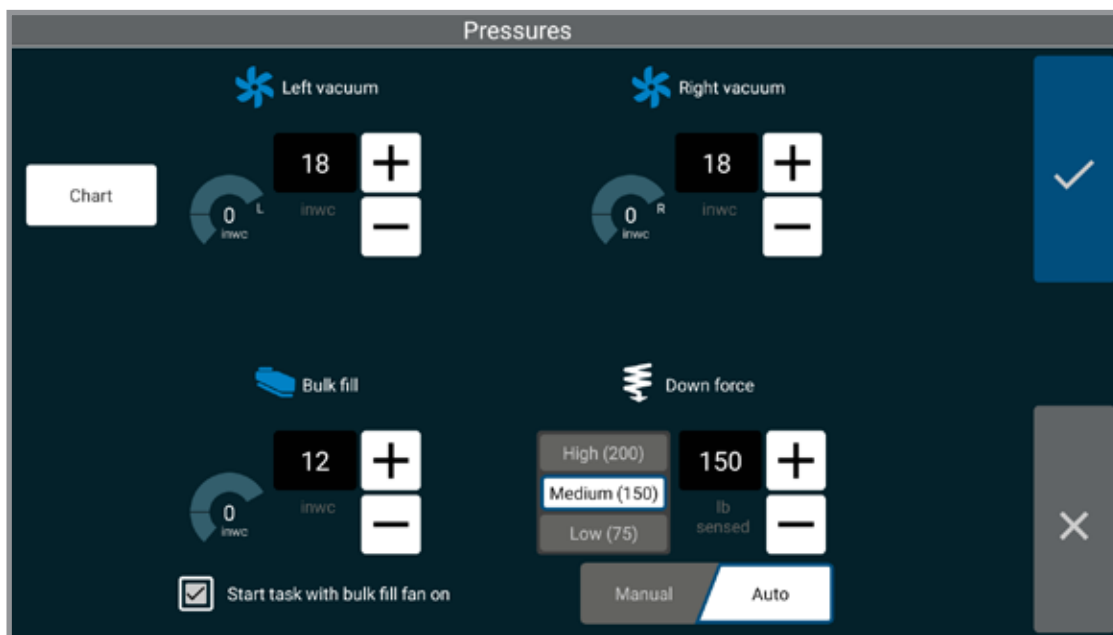
TASK SETUP - MAP FILE



Select a prescription or boundary file, then accept to continue. If you wish to remove a prescription file and continue with no prescription, select nothing and accept.

NOTE: These files are imported through **MANAGE** [Page 79](#) or the **Choose Map File** screen.

TASK SETUP - PRESSURES



Pressures

Enter and accept the desired pressures. Select “Chart” to view recommended settings.

NOTE: This screen may appear differently depending on your configuration.

Bulk Fill

A Task can be started with the bulk fill fan “Off”. **NOTE: This setting is not saved and needs to be changed each time a task is entered.**

If True Depth is installed extra controls are available:

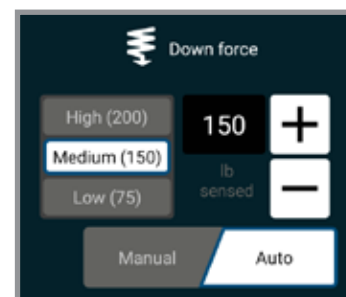
Auto Mode

Entry sets the desired amount of gauge wheel weight to carry while going through field. The amount of down force will adjust to achieve that weight on gauge wheel.

While in Auto mode, there are three presets that can be chosen from. Presets can be changed after manually adjusting the value, tap and hold on one of the preset buttons to save desired preset.

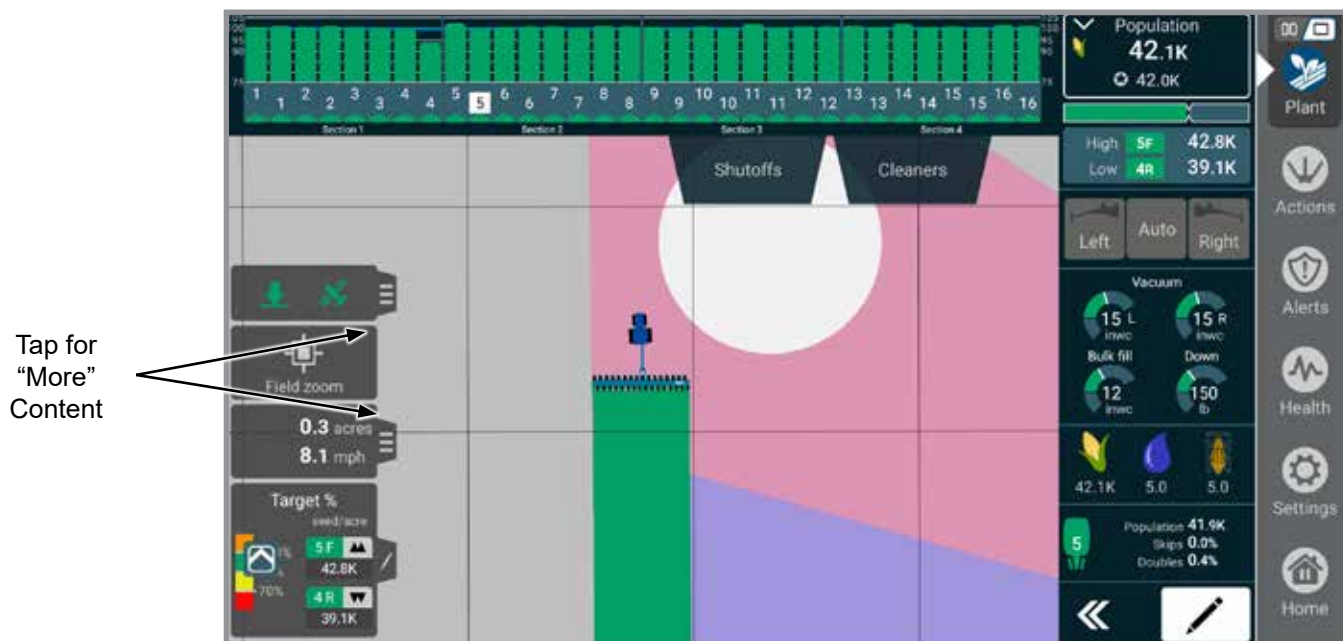
Manual Mode

Entry is a set amount of down force and does not adjust based on gauge wheel load. This setting keeps down force the same no matter conditions, speed etc.



PLANT SCREEN

Plant Screen Introduction. The plant screen provides significant planting information all in a single display. Overall field view, population, and row data are available. The grower can also monitor speed and acres as well as system pressures, or tap to control row markers. Detailed row data is also available at a glance and can be investigated in detail with a tap. GPS, Acres/Speed, and Data Layer Legend tabs can all be accessed for more content.



Row Detail. Displays a readout of the current status of an individual row, including the population information, fertilizer system state, and insecticide system state. This box will rotate through all rows while scan is active, changing every few seconds. It will stay on a single row when hold is selected.

Pressures.

Vacuum	Displays vacuum pressure levels.
Bulk Fill	Displays the pressure level of the bulk fill system.
Down Force	Displays the amount of down force being placed on the row units.

NOTE: If hydraulic down force is installed, instead of a down force gauge there will be a Ground Contact Percentage displayed.

Product Summary. Displays products currently being used.

Center/Field Zoom. Toggles between centering on the tractor/planter and zooming to display the entire field.

NOTE: Field zoom may not accurately display large or disparate fields.

Single/Dual Maps. Toggle between single and dual maps view. The selected data layers will remain the same between either view. If a widget is expanded in single map view, it will remain expanded in dual map view.

GPS. Indicates GPS status.



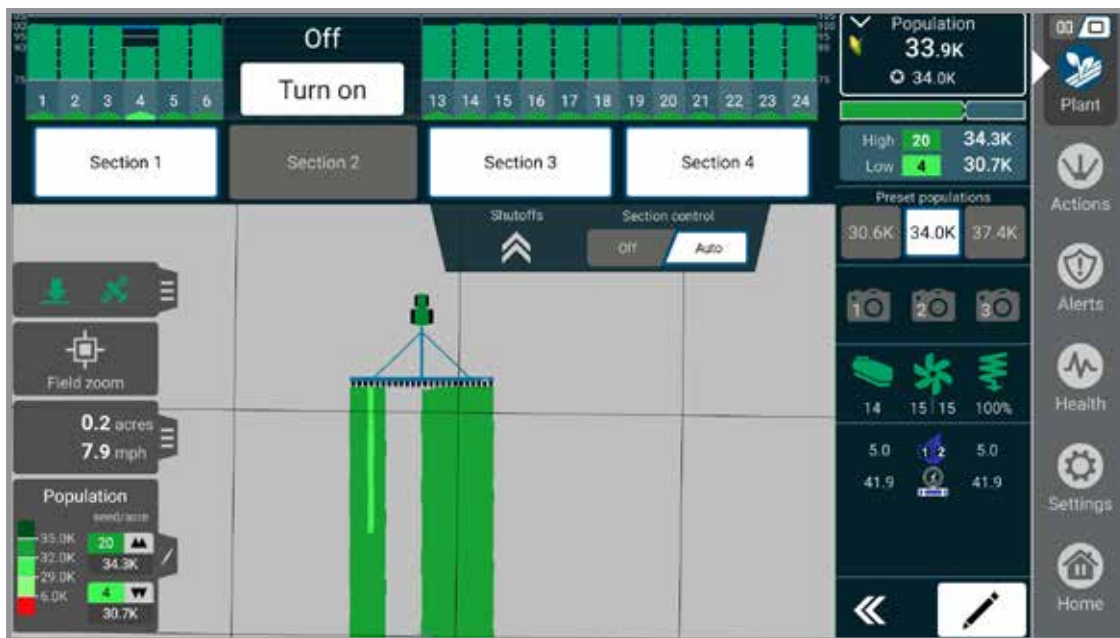
Row Cleaners. Adjust pressure of row cleaners. Presets can be edited and saved.



Row cleaner selections:

NOTE: Refer to Operator's manual for detailed adjustment and operational settings of row cleaners.

Quick Raise	All row cleaners lift all the way up.
Light Preset	Lightest selection available.
Medium Preset	Medium selection available.
Heavy Preset	Heaviest selection available.



NOTE: If a section(s) is turned “off” an audible reminder will play periodically, this reminder can be disabled in the “Settings” section.

Shutoffs. Provides the ability to manually disable seed delivery by sections. Manual control is always enabled and the user can select whether there are one, two, or four sections from the settings page.

NOTE: Other sections will still perform automatic section control if the automatic section control feature is enabled. This is also how automatic section control can be enabled/disabled.

Auto Section Control. Controls whether Auto Section Control is Disabled or Enabled. This enables GPS guided control or row “on/off” when entering or exiting an already planted area or boundary.

Speed/Acres. Displays the current speed, actual acres planted, productivity, and selected Counter. Tap for Acres to Empty, weights, and GPS. Tap on the counter to advance to Counter screen.

Fertilizer Tank Level. Displays fertilizer tank level, acres to empty, and acres applied.

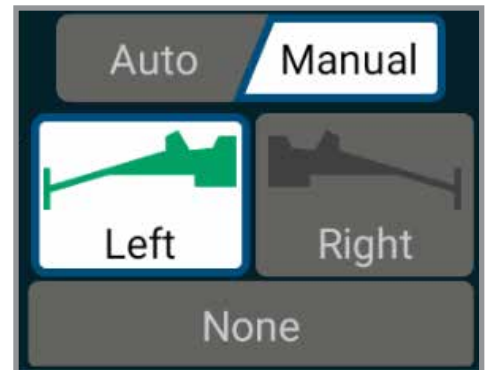


Map. Displays current work progress. Also displays the prescription and boundary maps when applicable.

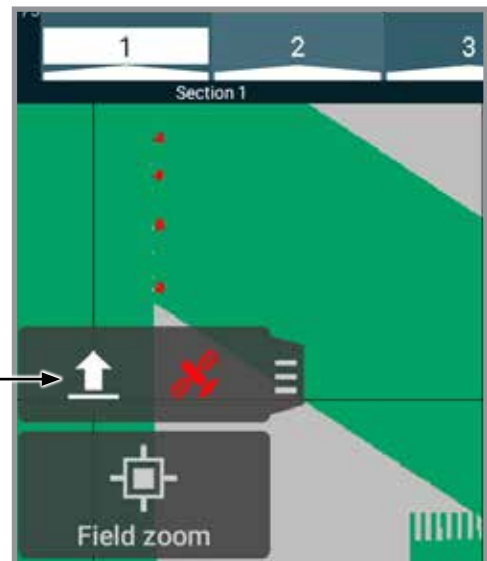
Markers. Allows the user to enable the left and right markers. Includes an auto function to automatically switch markers when the toolbar is lifted.

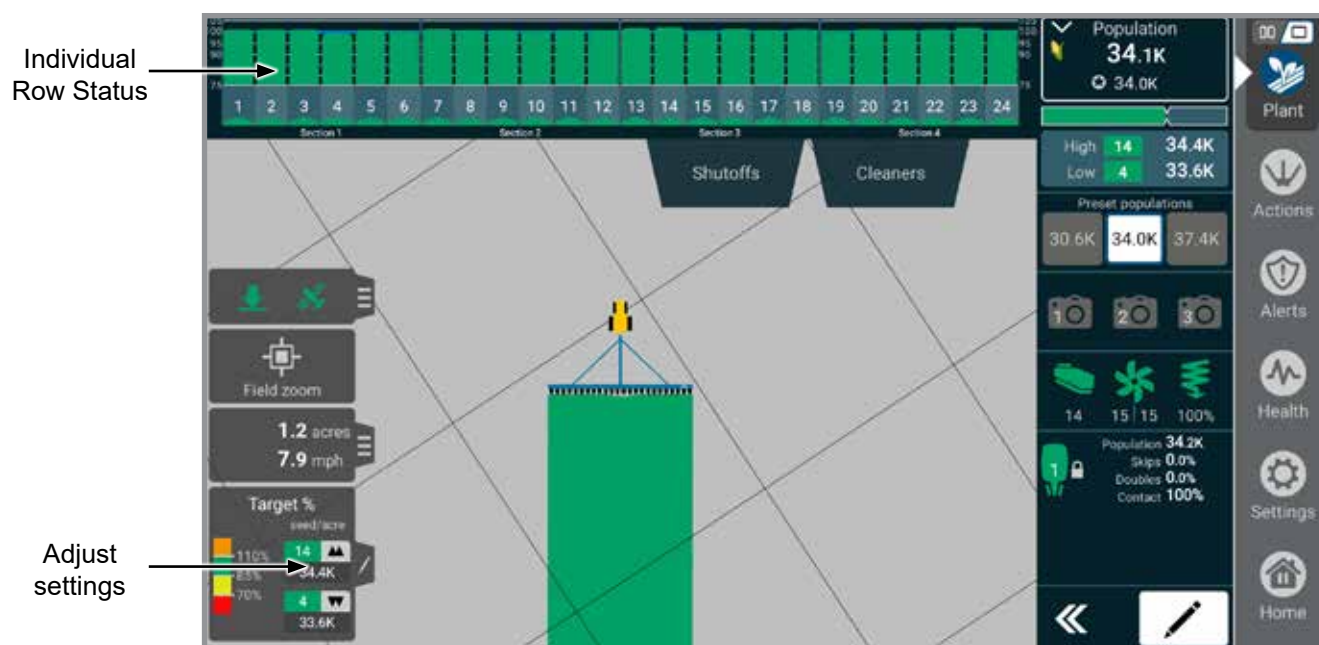
NOTE: The electronics do not control the lift of the markers. They only enable the deployment. Both markers can be lifted by using the hydraulics. Both can be lowered, but they must be lowered individually.

NOTE: Marker is not enabled until image turns green.



Toolbar. Shows the current implement switch status.





Individual Row Status. Displayed along the top of the screen typically showing a bargraph. Shows row by row information depending on the currently selected map layer.

Target % - Displays the average population for the whole planter in the upper right. Row by row population is also displayed and differs depending on the current population control type (whole, split, prescription). The blue line represents the target population. The bars represent the actual row population and are colored as follows:

Orange	In the over range (above the high threshold)
Green	In the good range (above the good threshold and below the high threshold)
Yellow	In the warn range (above the low threshold and below the good threshold)
Red	In the error range (below the low threshold)

The high threshold and low threshold can be adjusted in alert settings. The good threshold is calculated as half way between the low threshold and 100%. Settings can be adjusted directly from map legend.

NOTE: Population accuracy = 100% + % of Doubles - % of Skips.

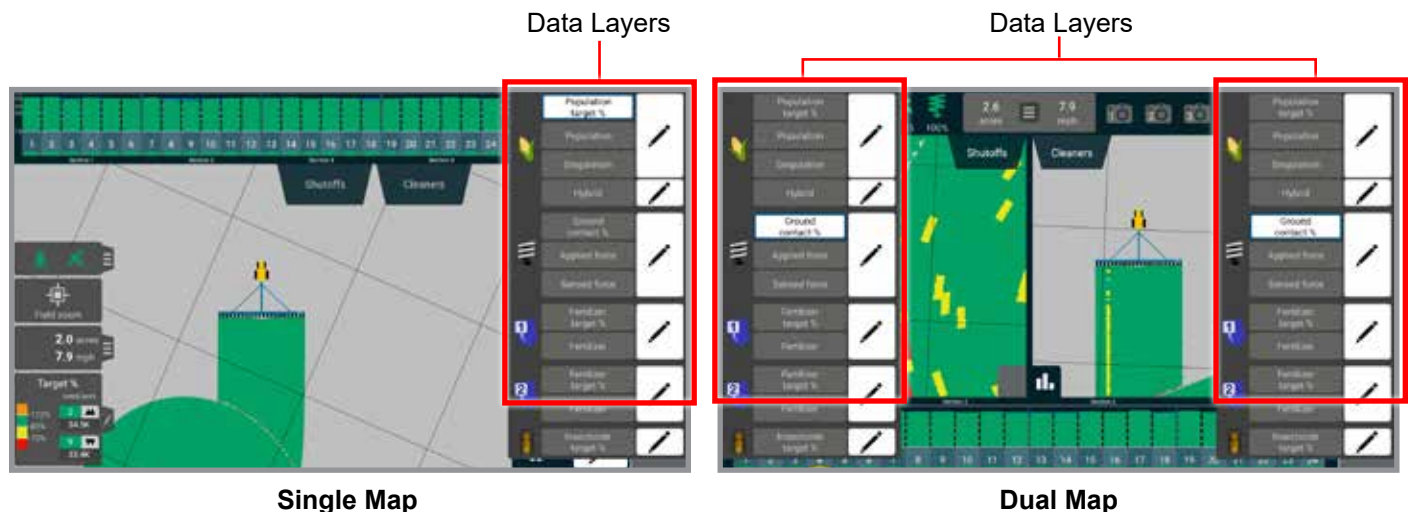
Singulation - Displays how consistently the seed meter delivers seeds.

Green	In the good range (above the good threshold)
Yellow	In the warn range (between the low threshold and the good threshold)
Red	In the error range (below the low threshold)

The low threshold can be adjusted in alert settings. The good threshold is calculated as half way between the low threshold and 100%. Settings can be adjusted directly from map legend.

NOTE: Singulation accuracy = 100% - % of Doubles - % of Skips.

Data Layers. Displays the stats for the currently selected data layer. Tapping on layer stats will allow you to choose the desired layer to view or edit.



Population Target % - Displays population target %.

Population - Actual population planted.

NOTE: The individual row stats bar graphs will show population target %.

Hybrid/Variety - Displays the applied Hybrids/Varieties.

NOTE: The individual row stats bar graphs will show population target %.

Singulation - Displays how consistently the seed meter delivers seeds. For dual product, it will display singulation for each product used.



Ground Contact % - Displays how consistently the gauge wheels are in contact with the ground. Only applicable with True Depth 12".

Applied Force - Displays how much force is being applied. Only applicable with True Depth 12".

Sensed Force - Displays the load seen by the gauge wheels. Only applicable with True Depth 12".

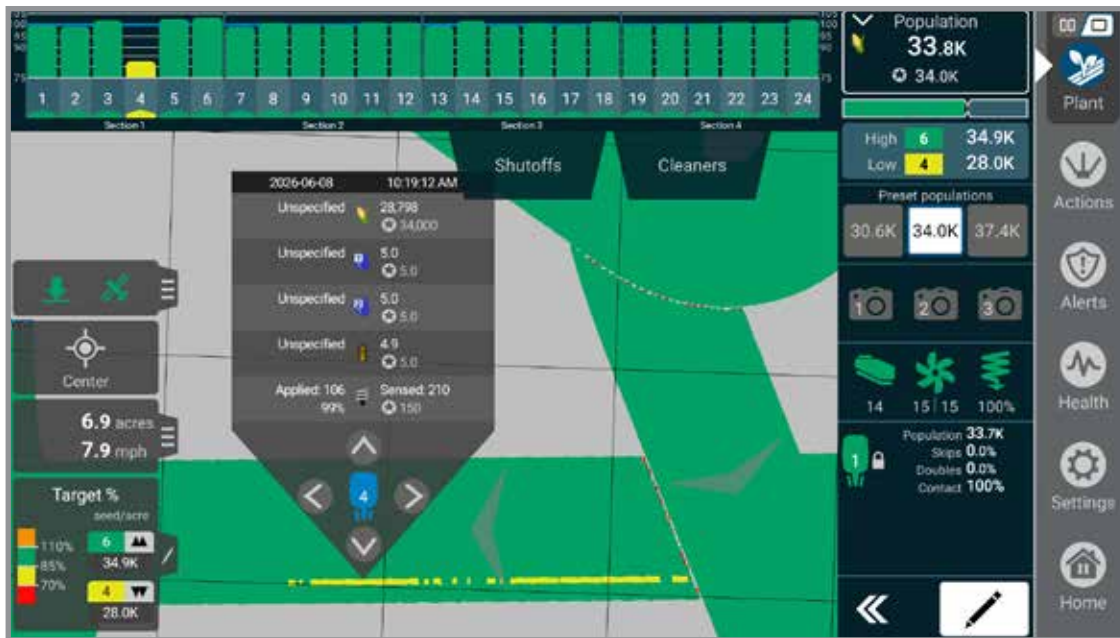
Fertilizer Target % - Displays overall system rate, individual flow or no flow.

NOTE: Will turn red if there is no flow.

Fertilizer - Displays actual rate being applied.

Fertilizer 2 - Displays actual rate being applied.

Insecticide Target % - Displays application and target %.



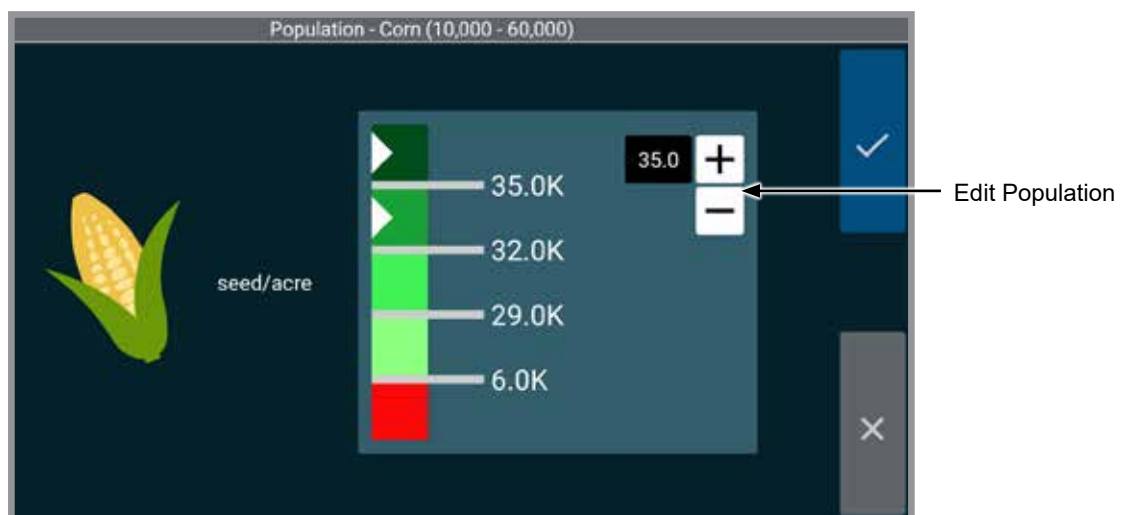
Map Detail. Tapping a spot on the planting map that has data associated with it (either applied data or prescription data) will show information for that point. The information includes the target and applied rates for all applied products.

NOTE: When viewing a task in Manage, tapping the map will also get a map detail box. In Manage map detail will show all the same information as it does while planting, plus the location data (latitude, longitude, speed, and heading) of the point.

User Defined Legends. Tap edit icon for defined legends, allows fast color switching and quick map redraw on the population map and fertilizer map.

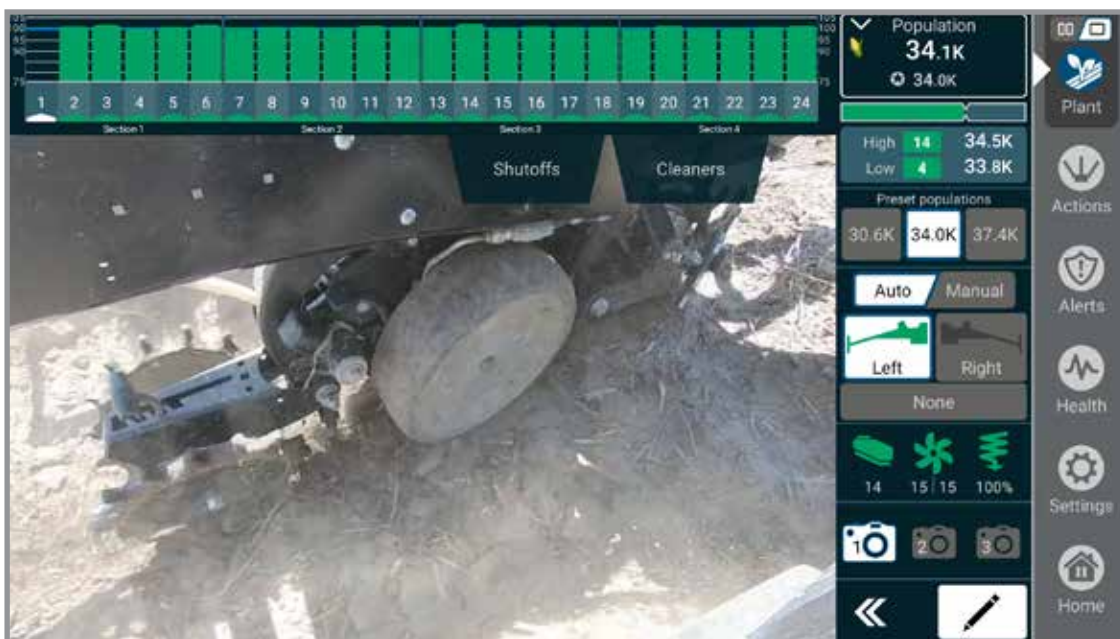


Auto Range. Will adjust the legend based on the current target population. If you change your population, you can select the auto range button again to automatically adjust the legend to better fit the current population.





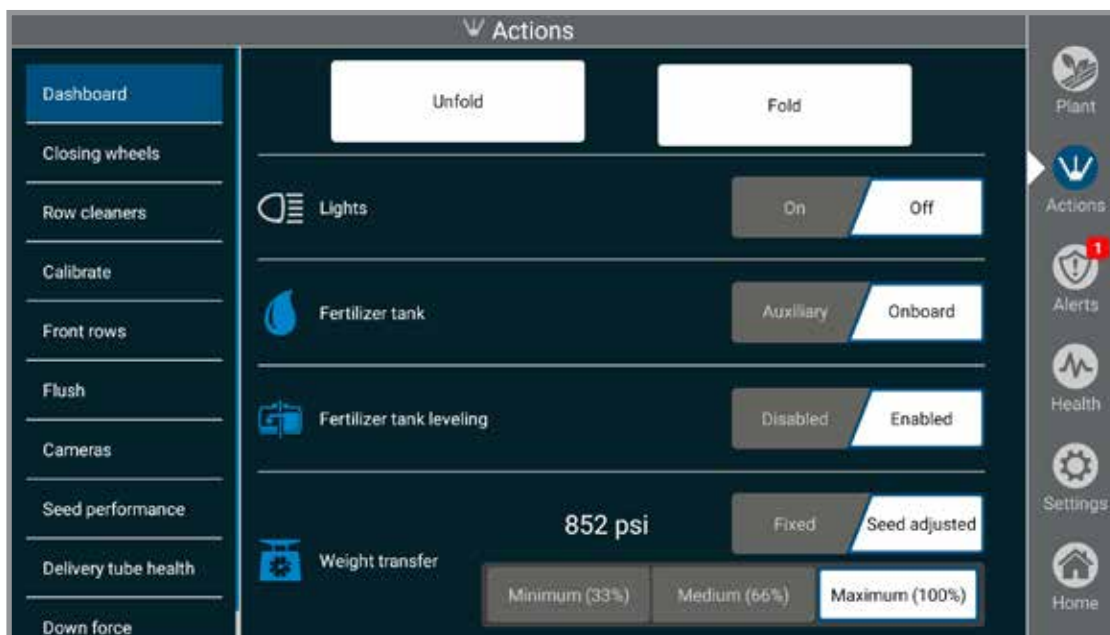
Cameras. Camera(s) may be accessed while planting. Camera(s) may be viewed full screen or as a quarter of the map. Tap camera video to switch views. Display video in different corners of the screen by tapping video. To view another camera (if applicable), tap on desired camera from the list. Camera(s) can be added to home screen, [See “Plant Widgets” on page 11](#) for more information.



ACTIONS - INTRODUCTION

The Actions menu contains all the controls necessary to move components of the planter. These options will be different depending on the planter model. Ensure you are referencing the pages of this manual specific to your planter.

DASHBOARD



Dashboard

Unfold or Fold.

Model	Unfold	Fold
3660 / 3665 / 3605 / 5670	Page 34	Page 35
4900 / 4905 / 5900	Page 36	Page 38
4700 / 4705 / 4800 / 4805 / 5700	Page 40	Page 41

Lights. Turns the planter work lights off and on.

Fertilizer Tank. The Fertilizer Tank option is only applicable to Blue Vantage planters with the Diaphragm pump system installed. Auxiliary tanks are supported and will suppress the low tank alerts that are present for onboard fertilizer storage.

NOTE: To correct Onboard/Auxiliary position, levers will need to physically be moved by the user.

Fertilizer Tank Leveling. Turns tank leveling “On” or “Off”. This is only available on model 5670 with factory installed diaphragm pump fertilizer. When enabled, the diaphragm pump will maintain equal fluid levels in each tank while planting and filling the planter by adjusting suction and agitation flow.

Weight Transfer.

Fixed - Provides constant pressure to the wing down force cylinders.

Seed Adjusted - Provides variable pressure to the wing down force cylinders based on the weight in the bulk fill tanks.

Maximum, Medium and Minimum - Available for both “Fixed” and “Seed Adjusted” settings, providing the ability to raise and lower the amount of wing down force applied.

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UNFOLD - MODEL 3660, 3665, 3605, AND 5670 LIFT & PIVOT

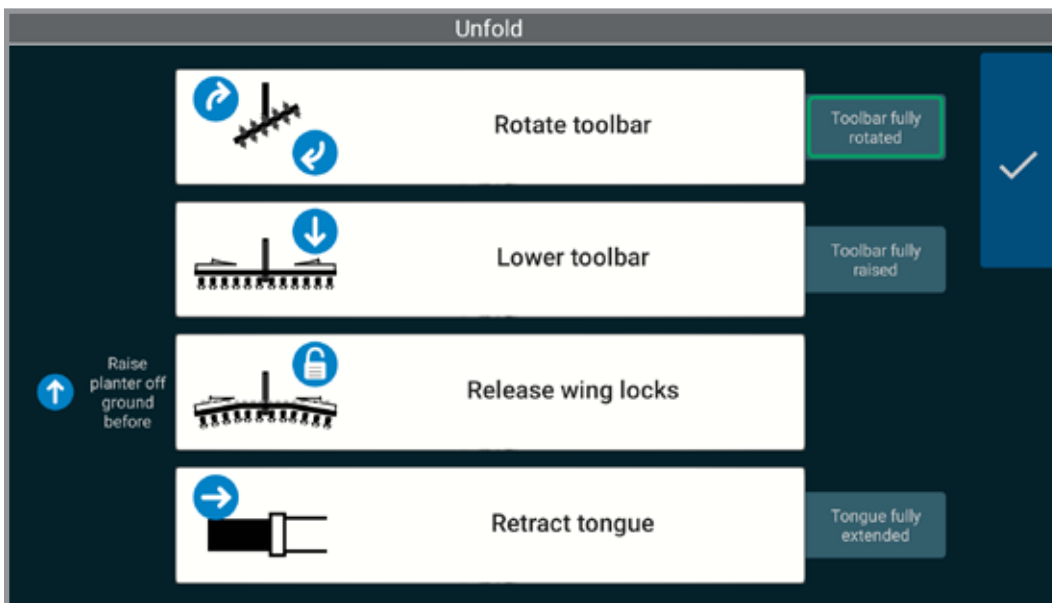
NOTICE

DO NOT fold or unfold planter without planter attached to a tractor. DO NOT unhitch planter from tractor unless fully folded for transport or fully unfolded with planting units lowered to ground.



WARNING

Improperly operating or working on this equipment could result in death or serious injury. Make sure there is no one in the area of the moving parts of the planter.



NOTE: Only applicable for Model 5670 - During the unfold/fold process, fold sensors will alert user if operation is being performed out of sequence or if there is a potential collision of planter parts. The status items on the right will highlight in green when function has been sensed complete.

Position the planter in a relatively flat open area. Avoid an area with furrows, etc.

1. Remove and store the tongue safety pin.
2. Remove and store the transport latch locking pin.
3. Remove and store the safety lockup.
4. Press and hold "Rotate toolbar". Operate proper hydraulic tractor control until planter has fully rotated into field position. Transport latch will automatically release.
5. Press and hold "Lower toolbar". Operate proper hydraulic tractor control to fully lower the planter on center post.
6. Operate hydraulic control to raise the planter using field lift.
7. Press and hold "Release wing locks". Operate proper hydraulic tractor control, releasing wing locks.
8. Press and hold "Retract tongue". Operate proper hydraulic tractor control to fully retract the tongue. Tongue latch automatically engages.
9. Lower the planter to the ground.
10. Remove the row marker lockups.

FOLD - MODEL 3660, 3665, 3605, AND 5670 LIFT & PIVOT

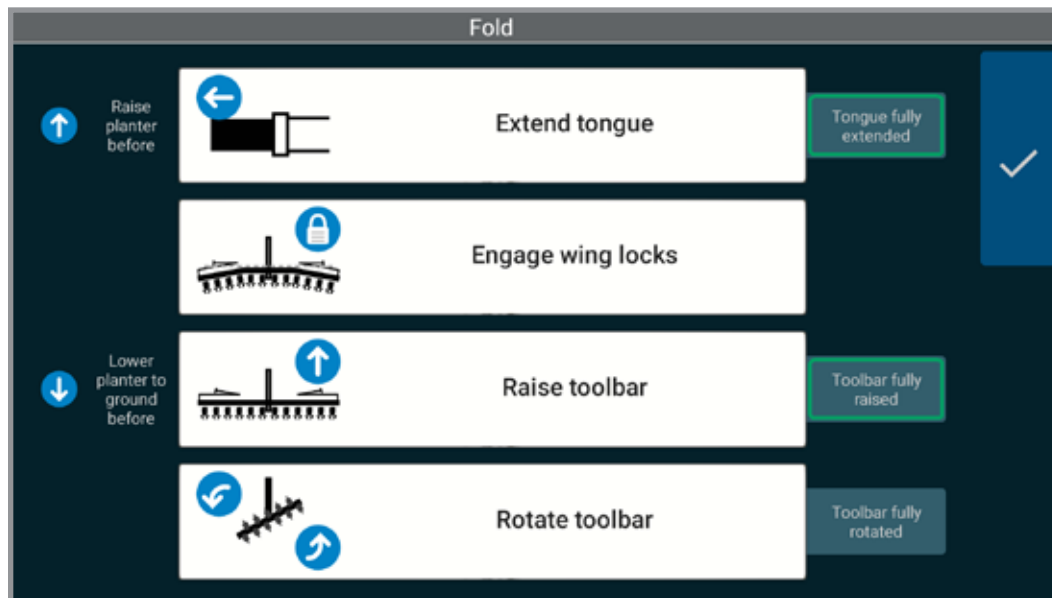
NOTICE

DO NOT fold or unfold planter without planter attached to a tractor. DO NOT unhitch planter from tractor unless fully folded for transport or fully unfolded with planting units lowered to ground.



WARNING

Improperly operating or working on this equipment could result in death or serious injury. Make sure there is no one in the area of the moving parts of the planter.



NOTE: Only applicable for Model 5670 - During the unfold/fold process, fold sensors will alert user if operation is being performed out of sequence or if there is a potential collision of planter parts. The status items on the right will highlight in green when function has been sensed complete.

Position the planter in a relatively flat open area. Avoid an area with furrows, etc.

1. Install the row marker lockups.
2. Operate the hydraulic control to raise planter using field lift.
3. Press and hold "Extend tongue". Operate the hydraulic control to fully extend the tongue. The tongue latch automatically engages.
4. Press and hold "Engage wing locks". Operate the hydraulic control.
5. Lower the planter to ground.
6. Press and hold "Raise toolbar". Operate the hydraulic control to fully raise the planter on center post.
7. Press and hold "Rotate toolbar". Operate the hydraulic control to rotate the planter to transport position. Transport latch automatically engages.
8. Install the safety lockup.
9. Install the hitch safety pin.
10. Install the transport latch locking pin.

UNFOLD - MODEL 4900, 4905, AND 5900 FRONT FOLDING**NOTICE**

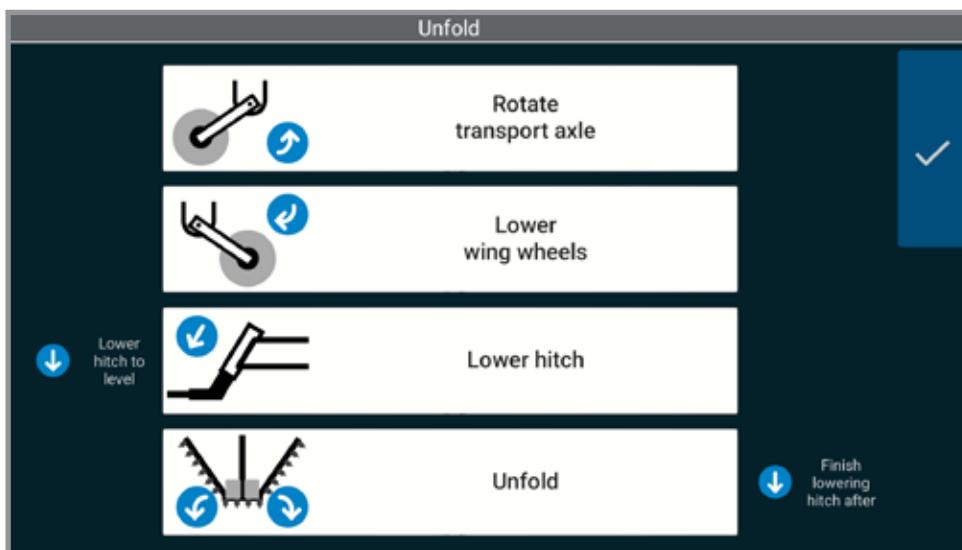
Tractor must be in neutral and allowed to roll freely when unfolding to prevent equipment damage, especially in soft conditions or when loaded with seed. Use tractor assist as needed to aid in unfolding and to reduce stress on frame and transport components.

NOTICE

DO NOT fold or unfold planter without planter attached to a tractor. DO NOT unhitch planter from tractor unless fully folded for transport or fully unfolded with planting units lowered to ground.

**WARNING**

Improperly operating or working on this equipment could result in death or serious injury. Make sure there is no one in the area of the moving parts of the planter.



UNFOLD - MODEL 4900, 4905, AND 5900 FRONT FOLDING (CONTINUED)

1. Remove the lockups.
2. Press and hold "Rotate transport axle". Operate proper hydraulic tractor control to lower the transport axle to field turnaround position.
3. Press and hold "Lower wing wheels". Operate proper hydraulic tractor control to lower the wing wheels into field turnaround position.
4. Press and hold "Lower hitch". Operate proper hydraulic tractor control to unhook the wings.
5. Press and hold "Unfold". Operate proper hydraulic tractor control to move the wing out, away from tractor. The planter is completely unfolded when the stub wings are latched into the H-frame.

Note: Place tractor in reverse and slowly reverse when unfolding to prevent damage to wheel arm.

6. Lower the planter and hold the hydraulic lever for an additional 30 seconds to rephase the lift cylinders.
7. If equipped with row markers, remove lockups and place in storage position.
8. Lower the hitch to level the machine during planting.

FOLD - MODEL 4900, 4905, AND 5900 FRONT FOLDING

NOTICE

Tractor must be in neutral and allowed to roll freely when folding to prevent equipment damage, especially in soft conditions or when loaded with seed or fertilizer. Use tractor assist as needed to aid in folding and to reduce stress on frame and transport components.

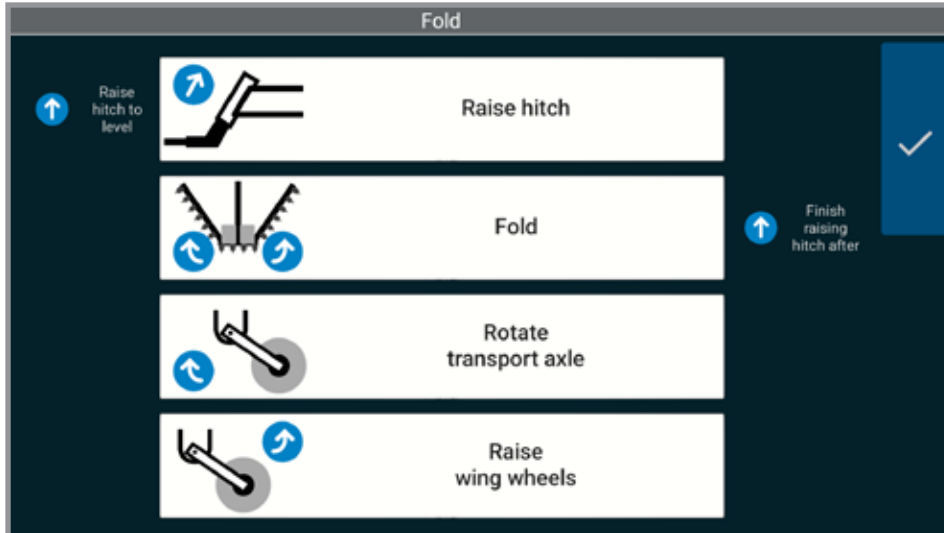
NOTICE

DO NOT fold or unfold planter without planter attached to a tractor. DO NOT unhitch planter from tractor unless fully folded for transport or fully unfolded with planting units lowered to ground.



WARNING

Improperly operating or working on this equipment could result in death or serious injury. Make sure there is no one in the area of the moving parts of the planter.



FOLD - MODEL 4900, 4905, AND 5900 FRONT FOLDING (CONTINUED)

1. If equipped with row markers, remove the lockups from the storage and install on marker cylinder rods.
2. Place the planter into field turnaround position.
3. Press and hold "Raise hitch" (If equipped). Operate proper hydraulic tractor control to raise the drawbar to level the planter frame.
4. Press and hold "Fold". Operate proper hydraulic tractor control until the 2 hooks are over the top of the inner hitch.

Note: If tractor assist is needed place tractor in forward and slowly move forward when folding to prevent damage to wheel arm.

5. Press and hold "Raise hitch" (If equipped). Operate proper hydraulic tractor control to fully raise the drawbar to lock wings into place.
6. Press and hold "Rotate transport axle" button. Operate proper hydraulic tractor control to raise the transport axle to either transport height.
7. Press and hold "Raise wing wheels". Operate proper hydraulic tractor control to raise the wing wheels into transport position.
8. Install the locking pin on the drawbar (if equipped).
9. Install the lockups.

UNFOLD - MODEL 4700, 4705, 4800, 4805, AND 5700 FRONT FOLDING**NOTICE**

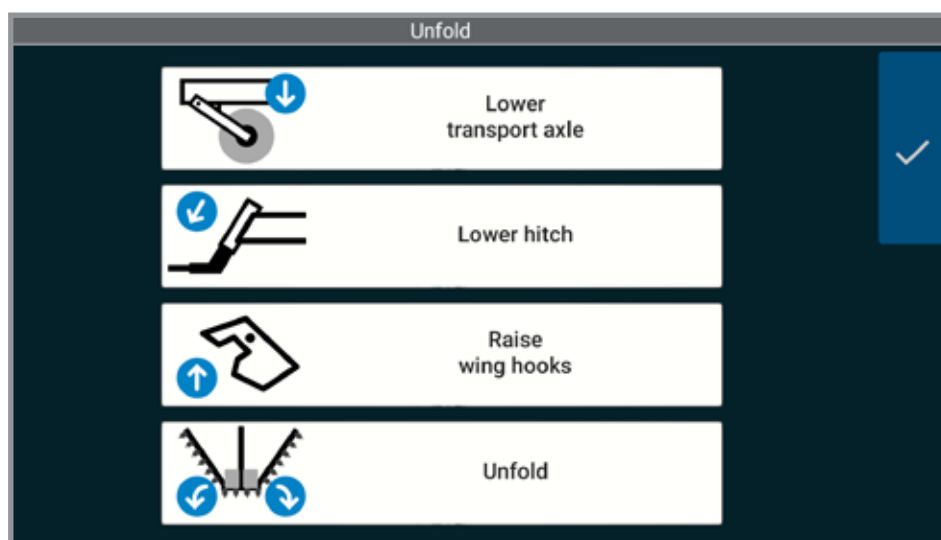
Tractor must be in neutral and allowed to roll freely when folding to prevent equipment damage, especially in soft conditions or when loaded with seed or fertilizer. Use tractor assist as needed to aid in folding and to reduce stress on frame and transport components.

NOTICE

DO NOT fold or unfold planter without planter attached to a tractor. DO NOT unhitch planter from tractor unless fully folded for transport or fully unfolded with planting units lowered to ground.

**WARNING**

Improperly operating or working on this equipment could result in death or serious injury. Make sure there is no one in the area of the moving parts of the planter.



1. Remove the lockups.
2. Press and hold "Lower transport axle". Operate proper hydraulic tractor control to lower the transport axle to the field turnaround position.
3. Press and hold "Lower hitch". Operate proper hydraulic tractor control to lower the hitch.
4. Press and hold "Raise wing hooks". Operate proper hydraulic tractor control to disengage the wing hooks.
5. Press and hold "Unfold". Operate proper hydraulic tractor control to fold the wings outward until the stub wing latch pins are sealed into the H-frame receivers.
6. Raise the hitch to level the machine during planting if necessary.

FOLD - MODEL 4700, 4705, 4800, 4805, AND 5700 FRONT FOLDING**NOTICE**

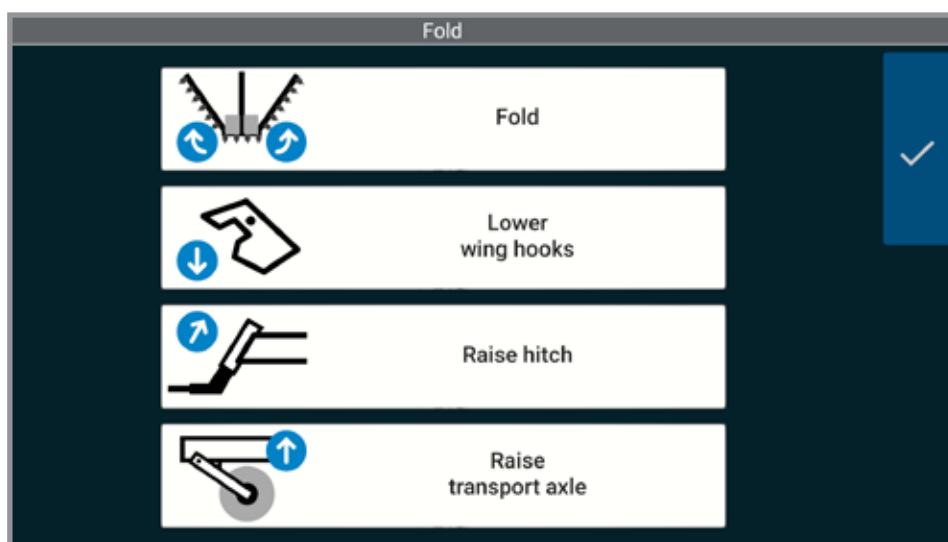
Tractor must be in neutral and allowed to roll freely when folding to prevent equipment damage, especially in soft conditions or when loaded with seed or fertilizer. Use tractor assist as needed to aid in folding and to reduce stress on frame and transport components.

NOTICE

DO NOT fold or unfold planter without planter attached to a tractor. DO NOT unhitch planter from tractor unless fully folded for transport or fully unfolded with planting units lowered to ground.

**WARNING**

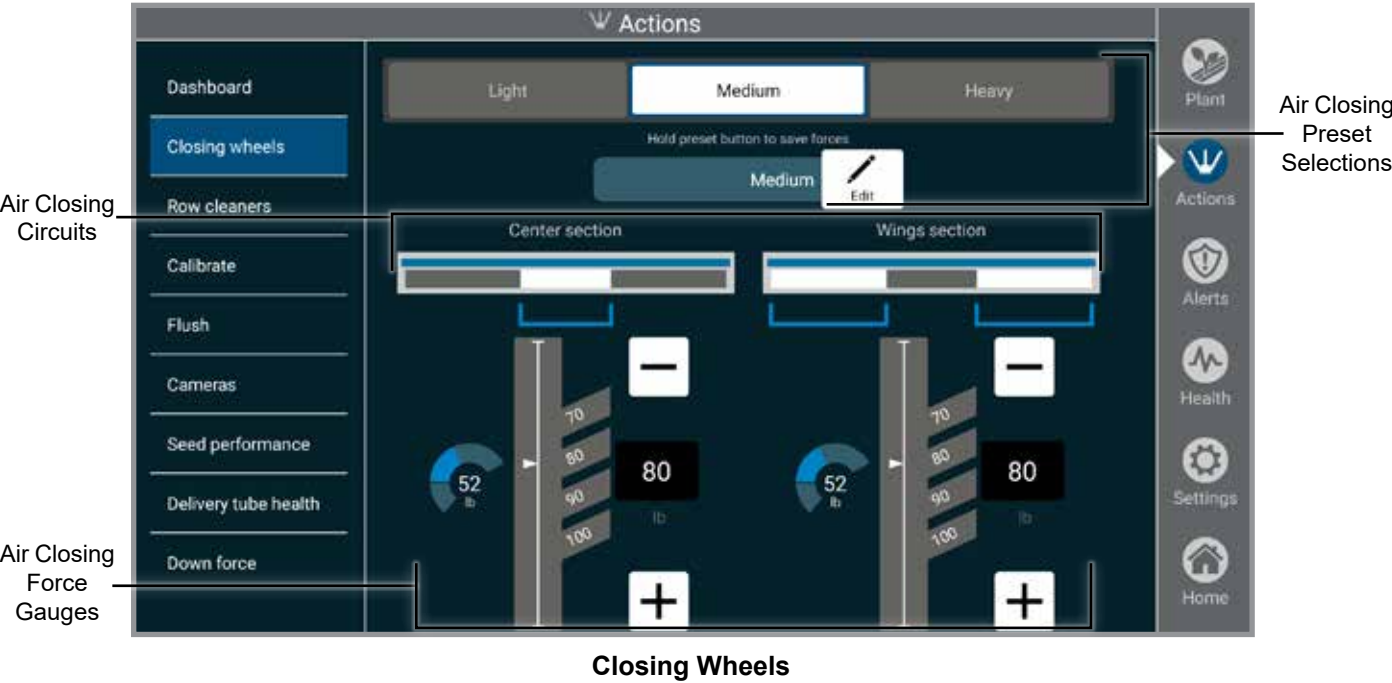
Improperly operating or working on this equipment could result in death or serious injury. Make sure there is no one in the area of the moving parts of the planter.



1. If equipped with row markers, remove the lockups from storage and marker cylinder rods.
2. Place the planter into the field turnaround position.
3. Press and hold "Fold". Operate proper hydraulic tractor control to fold the wings in toward the tractor.
4. Press and hold "Lower wing hooks". Operate proper hydraulic tractor control to engage the wing latches around the hitch tube to lock the wings.
5. Press and hold "Raise hitch". Operate proper hydraulic tractor control to raise the hitch to transport height.
6. Press and hold "Raise transport axle". Operate proper hydraulic tractor control to raise the transport axle to transport height.
7. Install the lockups.

CLOSING WHEELS

The air closing wheels are controlled in two distinct sections: the center section, which corresponds to the rows in the middle of the toolbar, and the wings section, surrounding the rows on both sides of the center section. The configuration of individual rows within the sections will vary depending on the specific model.



Air Closing Wheel Preset Selections. Use preset settings to simultaneously change both the wings and the center section. Making a change to the target force in either section will cause the preset to deselect.

To assign the current target force for both the center and wings sections, press and hold the preset button. The button for the selected preset can be renamed by tapping the “Edit” button.

Air Circuits. The planter row diagrams show what rows are on each circuit. Use the adjuster to set the desired target pressure for each section. The accompanying gauge provides a real-time display of additional force applied for each circuit.

NOTE: All adjustments made will take effect immediately.

Air Closing Wheels (PCW) Center	Center frame section closing wheels.
Air Closing Wheels (PCW) Wings	Wing frame sections closing wheels.

Force Gauges. Additional force being applied to each row’s closing wheels.

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CALIBRATE



Calibrate

Speed Wheel. Bring the tractor to 4 MPH. Tap “Calibrate”. Maintain speed until the timer expires. When the timer has expired, the calibration is complete.

NOTE: If speed wheel does not match GPS, re-run calibration.

Zero Bulk Fill Pressure. The bulk fill system must be turned off, then tap “Zero”. When the timer has expired, the calibration is complete.

CALIBRATE (CONTINUED)



Calibrate

Zero Vacuum Pressure Sensor (Left/Right). Confirm that the vacuum fan is off. Tap “Zero”. When the timer has expired, the calibration is complete.

Zero Down Pressure Sensor (only applicable when pneumatic down force is installed). Confirm that the toolbar is down. Tap “Zero”. The toolbar must remain down until the timers expire. The first timer will count down while the pressure is released. When the second timer has expired, the sensor has reset and the calibration is complete.

NOTICE

Zeroing the down pressure system will cause the pressure to be released from the down pressure system. It may take a few minutes for the system to restore to its normal state.

Zero Down Force Links. When planter is equipped with True Depth 12". The toolbar must be raised to calibrate.

Calibrate Hydraulic Sensors. Turn off PTO and put all hydraulics “Float” position to calibrate hydraulic sensors. **NOTE: Once “Continue” has been selected calibration cannot be canceled.**

Zero Closing Wheels Sensors. Perform calibration after fixing air leaks or replacing components.

Calibrate Seed Sensors. Perform calibration after cleaning seed sensors or when experiencing issues with planting.

Calibrate Fertilizer Tank Level Sensor. Ensure fertilizer tank(s) are less than 50% full before pressing “Calibrate” button.

FLUSH



Flush

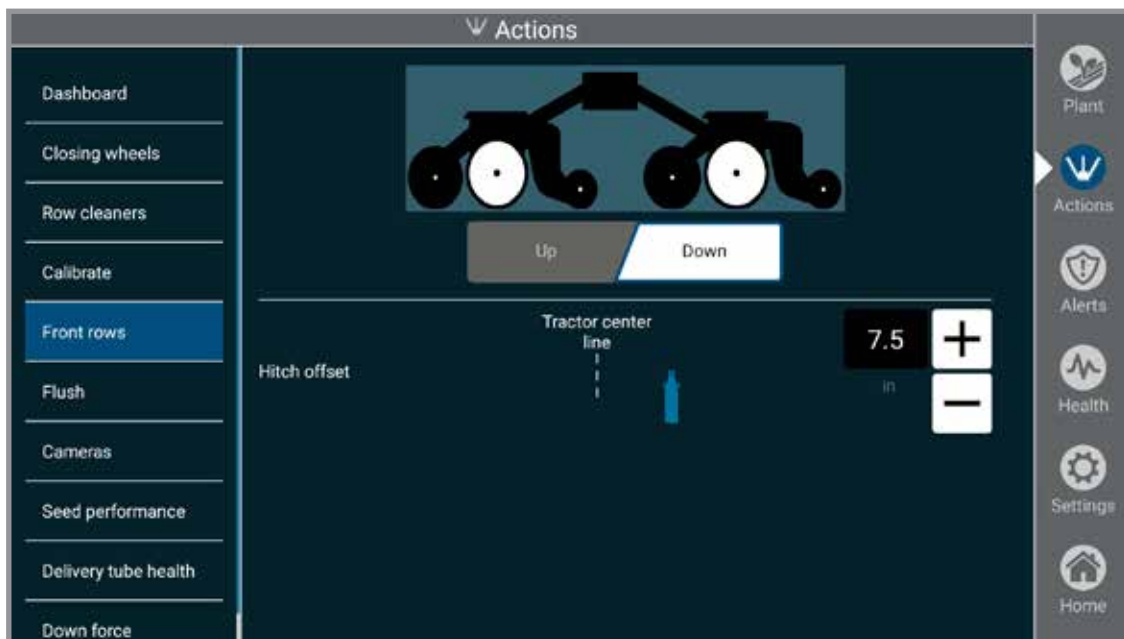
NOTICE

The toolbar must be raised to enable Flush Control.

Flush allows you to clear out each product individually. Vacuum and bulk fill will use the last set of pressures when turned on. While flushing, the square corresponding to each row and product will pulse blue. When flushing has finished, the square will remain solid grey. The bulk fill and vacuum fans can be turned on and off to allow flushing of the bulk fill system and the row hoppers individually.



FRONT ROWS (ONLY AVAILABLE WITH FRONT ROWS INSTALLED)



Front Rows

Indicates to the system whether the front rows are raised or lowered. The front rows must still be manually raised/lowered.

Hitch Offset. Specifies how much the hitch is offset to allow the system to account for it. The offset is only applied when the front rows are down.

NOTE: This Hitch Offset Option is only available when even row is installed.

ROW CLEANERS



NOTE: See model specific operator’s manual for detailed information on setup and operation of system.

Row Cleaner Preset Selections
Row cleaner pressure setting names can be edited and renamed.

Air Circuits
Air circuits graphs shows what rows are on each specific circuit.

RU	All Row Units Up Pressure
WT	Wheel Track Down Pressure
RD	Wing Down Pressure

Pressure Gauges
Names of preset

SEED PERFORMANCE

Test the performance of individual row units while they are installed.

1. Set up the test parameters and select the rows to be tested. The parameters needed are the crop type, population, and speed to run at as well as the length, in seeds, to run for.

Tap “Ready”.



2. Set the bulk fill and vacuum pressures and prime the planter as needed.

NOTE: In order to get accurate results all rows must be fully primed.

3. Tap “Run Test” to begin test.



4. While testing, pressures can be adjusted as needed. The current status of the test for each row can be viewed live.



5. After testing is completed, the final results can be viewed and exported.

6. Select New Test to begin another test.

Sep 11, 2021

Seed Performance Report

MODEL	SERIAL NUMBER
3665E 32 ROWS	SIMULATED
CROP	SPEED
CORN	5.5 MPH
DISC	VACUUM
32 CELL	15 INWC
POPULATION	
34000	
SEEDS RUN	BULK FILL
1900	14 INWC

ROW	SEEDS	SKIPS	DOUBLES	COV	RPM	SPACING
2 REAR	1,001	4 (0.4%)	2 (0.2%)	0.05	13.0	13.91 IN
3 REAR	1,001	1 (0.1%)	1 (0.1%)	0.06	13.0	13.86 IN

DELIVERY TUBE HEALTH



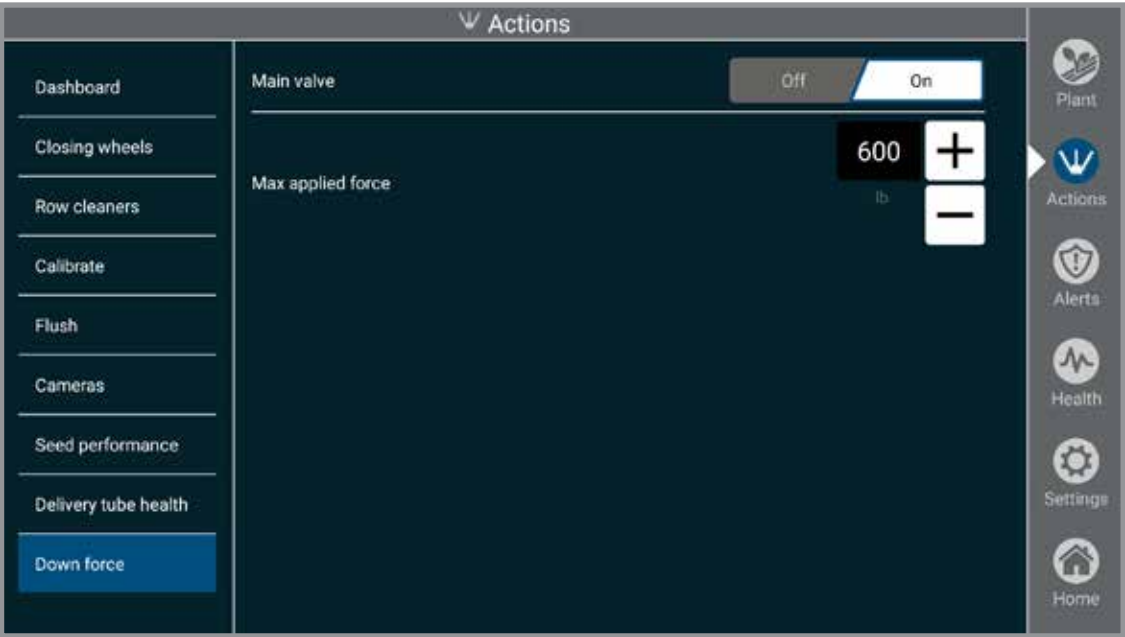
Delivery Tube health will analyze the True Speed delivery tube belts to determine if any adjustments are needed. If an issue is found, you can tap the category headings to get further instructions on how to tune the system.

NOTE: For best results rotate meter vertically before running test.



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DOWN FORCE

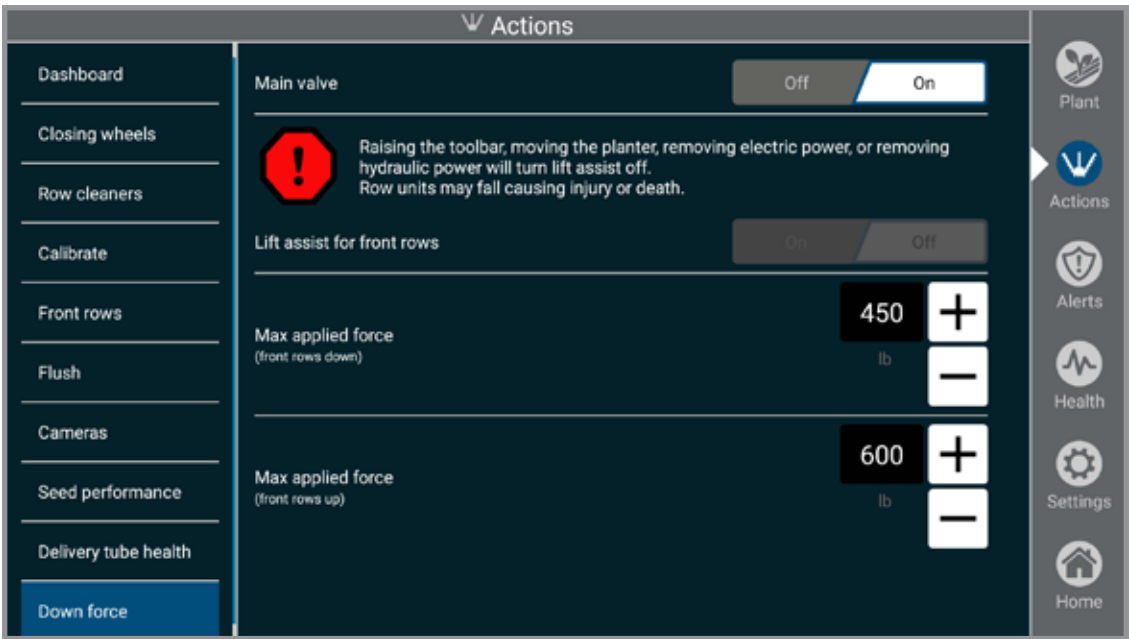


NOTE: Only applicable if True Depth 12" Display is installed.

Main Valve. Controls the main valve for the True Depth Hydraulic System.

Lift Assist. Controls the hydraulic up force for the Front Rows to assist when locking up or unlocking the Front Rows.

NOTE: Lift assist is only present when front rows are installed.

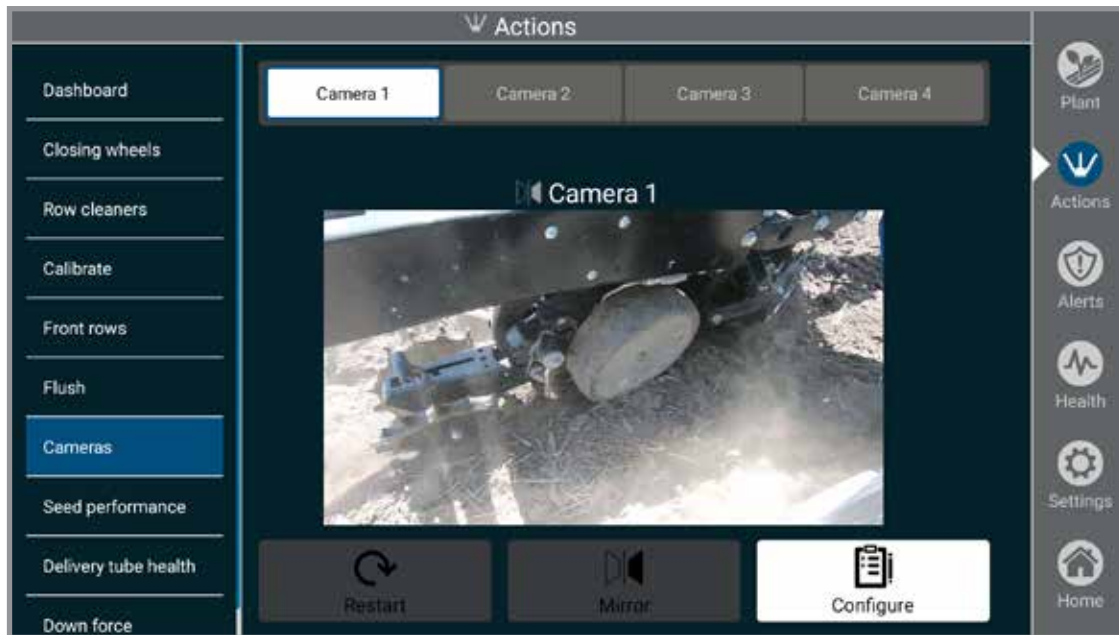


Max Applied Force. Limits how much force can be applied to reach the target setting to prevent the planter from being lifted out of the ground.

NOTE: There are two max applied force settings when equipped with Front Rows, one for when the rows are up and another for when they are down. Values will change when front rows are selected to go down or up automatically.

Planter Model	No Active Front Rows	Active Front Rows (Front Rows Down)
3505	600	300
3605	600	300
3660 / 3665	600	450
4705 - 24 Row 30"	600	---
470X - 36 Row 20"	450	---
4800 / 4805	600	---
4900 / 4905	600	---
5670	600	450
5700	450 (36 Rows) or 600 (other row count)	---
5900	600	---
NOTE: Values can be adjusted but floating toolbar can occur.		

CAMERAS



Configure up to four cameras.

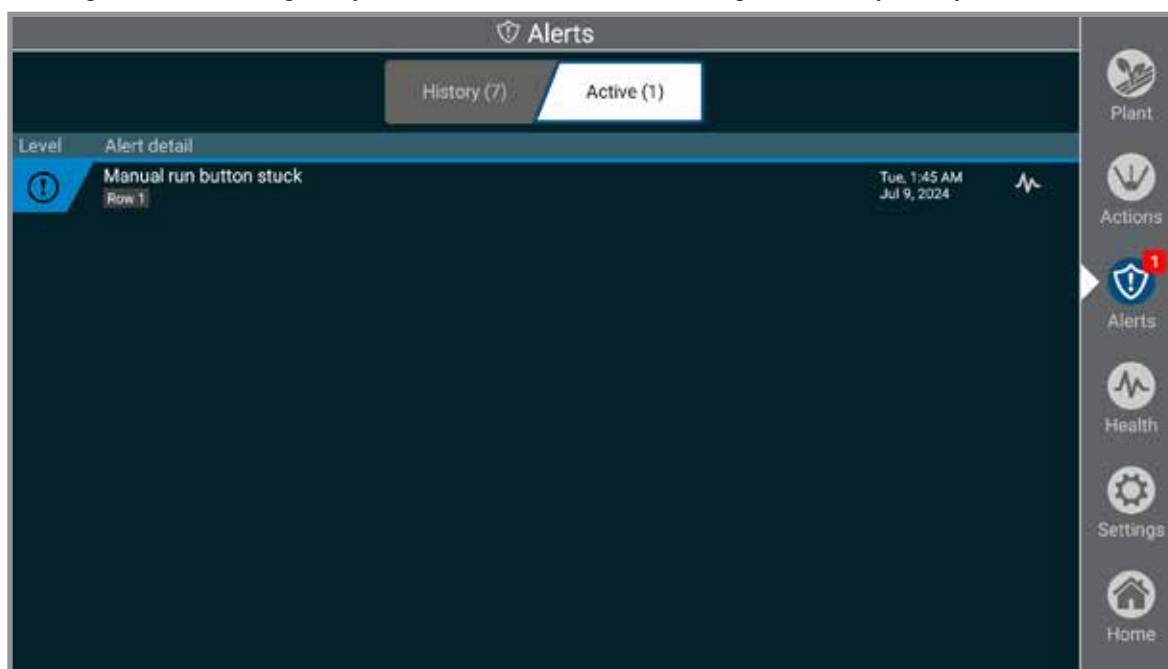
To begin, choose the camera serial number from address list and then name camera as desired.

To enlarge camera video to full screen tap on video, tap again to return to original size.



ALERTS

The Blue Vantage Alerts screen gives you an overview of all the alerts generated by the system.



Alerts

All active alerts will be displayed including the level, contributors, date, and time. Tapping on an alert will take you to the appropriate area of the Health screen or the appropriate diagnostic. An alert will be cleared from the active list once it has been corrected. All cleared alerts will remain visible in the history list.

-  **Error.** Planting or safety is affected, problem needs to be corrected before proceeding with planting.
-  **Warning.** Planting may be affected, problem should be investigated.
-  **Information.** Planting should not be affected, problem should be investigated at a lower priority.

Some alerts will prompt you with actions or further information about how they affect planter operation.

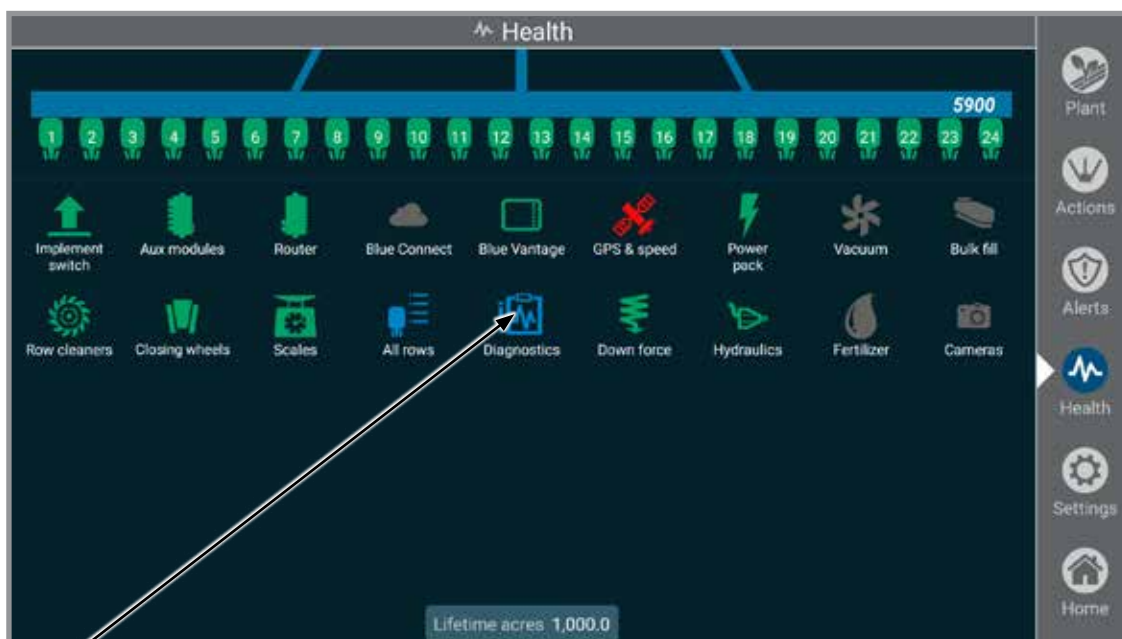


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HEALTH - INTRODUCTION

The Blue Vantage Health screen provides an overview of all of the metrics recorded by the system. All of the subsystems can be monitored quickly and easily from this screen. The Health screen also provides an access point for system diagnostics.

HEALTH SCREEN



Diagnostics [Page 66](#)

ROWS



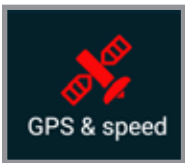
Rows. Select a row in the top toolbar view to display detailed row information. Select “ALL ROWS” from the row detail screen for detailed statistics for all rows.

BLUE VANTAGE



Blue Vantage. Provides the current battery charge level and lifetime hours of Blue Vantage display.

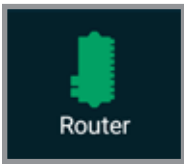
GPS & SPEED



GPS. Displays the overall GPS status, positional information, and NMEA sentence information.

Speed. Displays the overall speed status, source, and reported speeds.

ROUTER



Router. Displays the overall router status, model and option information, and version information.

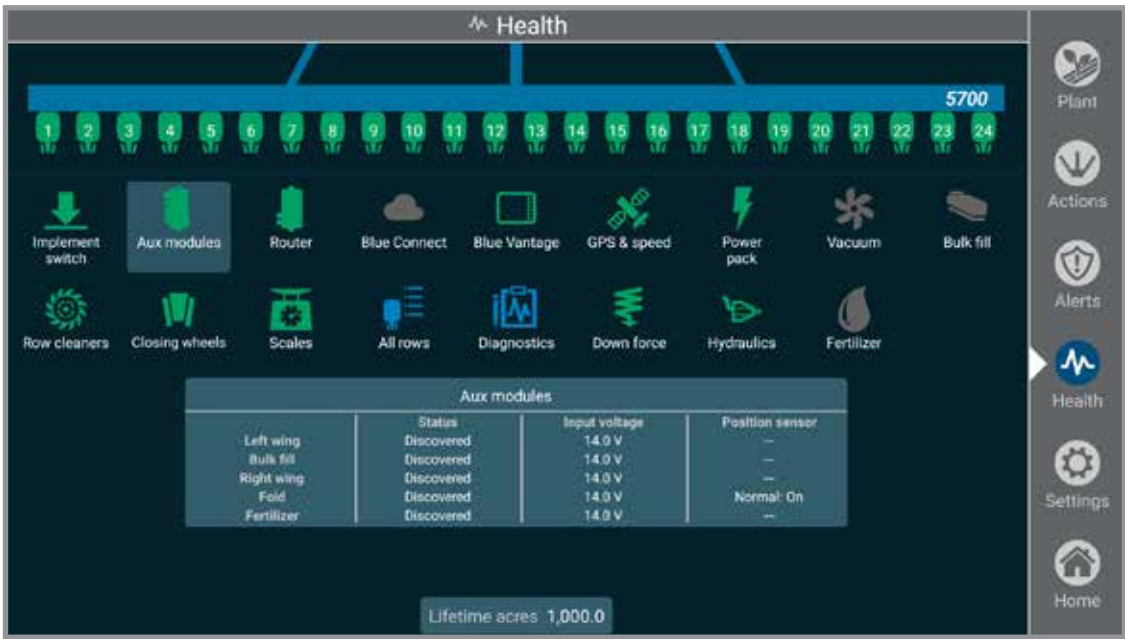
AUX MODULES



Aux Modules. Displays the overall status, firmware version, hardware version, unique ID, and supply voltage.

	3505 / 3605	3660 / 3665	4700 / 4705 / 4800 / 4805 / 4900 / 4905	5670	5700	5900
Fold			X		X	X
Bulk Fill	X	X	X	X	X	X
Left Wing			X		X	X
Right Wing			X		X	X
Raise	X	X		X		
Rotate	X	X		X		
Fertilizer	X <i>(Europe Only)</i>			X	X	X
Fertilizer 2						X

Aux Module Use By Planter Model

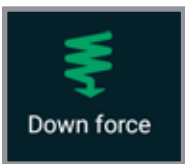


IMPLEMENT SWITCH



Implement Switches. Displays the overall toolbar status and left and right implement switch position.

DOWN FORCE



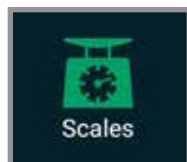
Down Force. Displays the overall down force status.

VACUUM



Vacuum. Displays the overall vacuum status and pressures.

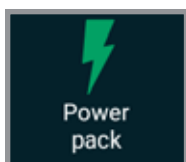
SCALES



Scales. Displays the overall bulk fill scales status, weights, and overall acres to empty.

Note: Overall Acres to Empty is calculated by doubling the Acres to Empty of the lowest tank value.

POWER PACK



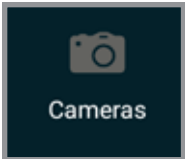
Power Pack. Displays the overall power pack status, voltages, and on/off statuses.

BULK FILL FAN



Bulk Fill Fan. Displays the overall bulk fill fan status and pressures.

CAMERAS



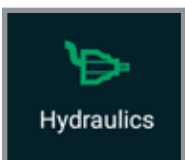
Cameras. Displays camera(s) by name, serial number, and if camera is connected.

ROW CLEANERS



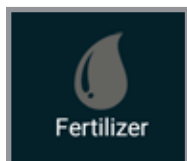
Row Cleaners. Displays the overall system pressure and section pressures.

HYDRAULICS



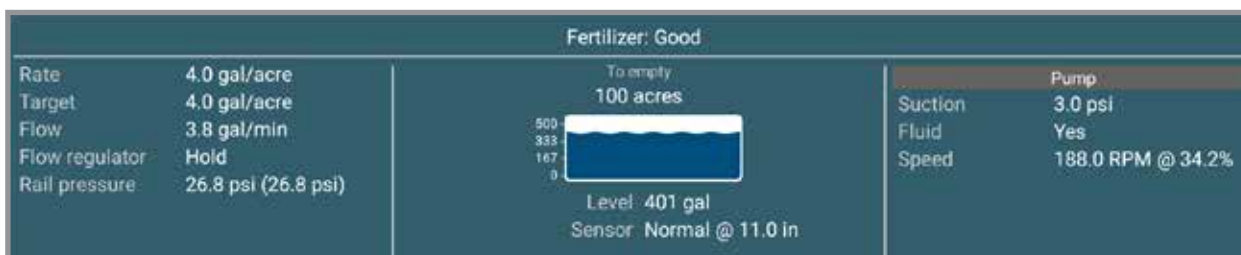
Hydraulics. Displays the overall PTO pump status.

FERTILIZER - SINGLE PRODUCT

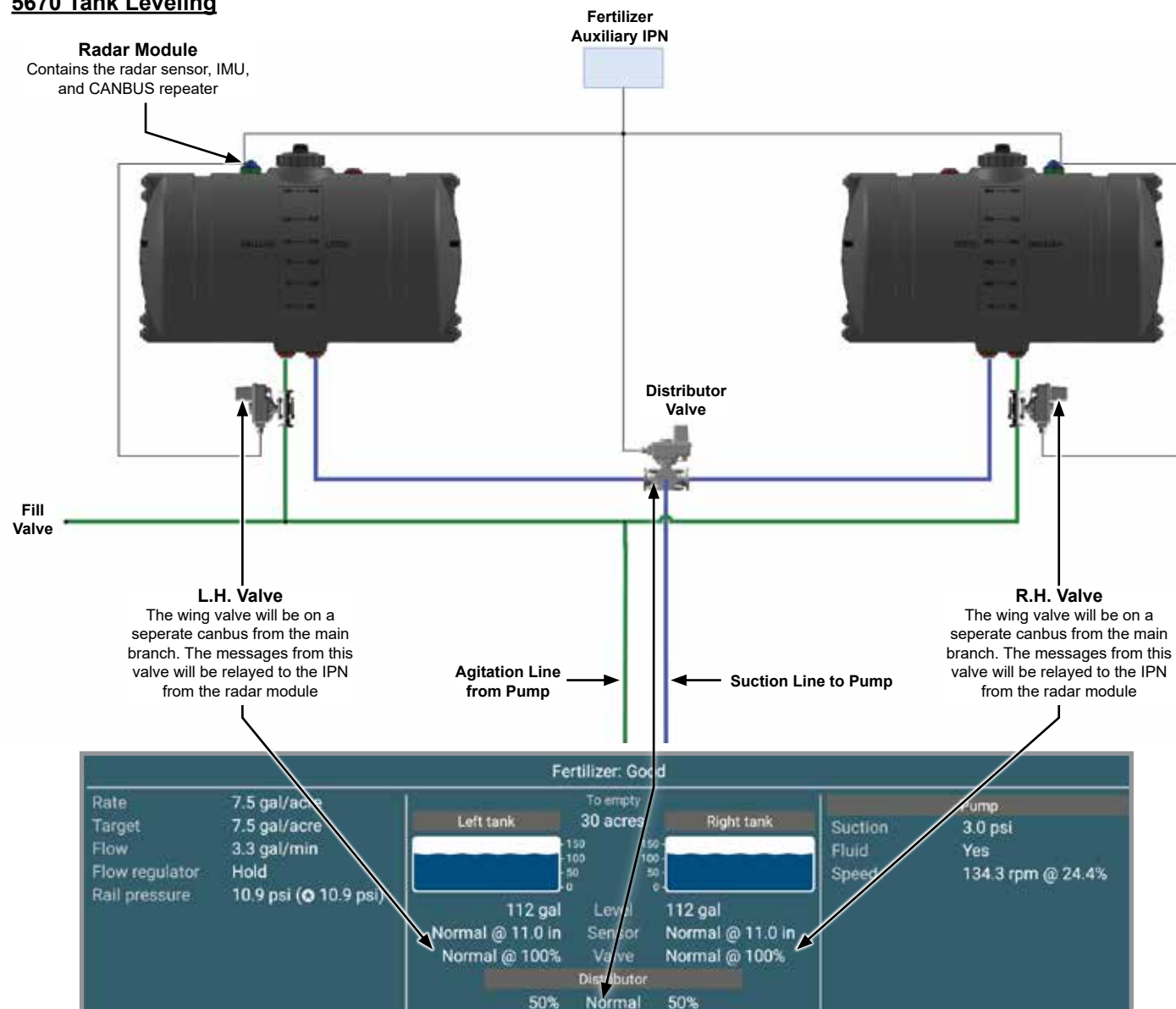


Fertilizer. Displays the overall fertilizer status.

Front-Fold



5670 Tank Leveling



FERTILIZER - DUAL PRODUCT



- Fertilizer 1.** Displays the overall fertilizer status of the onboard system.
- Fertilizer 2.** Displays the overall fertilizer status of the auxiliary system.

Fertilizer: Good	1	Rate	4.0 gal/acre		Pump	
		Target	4.0 gal/acre		Suction	3.0 psi
		Flow	3.8 gal/min		Fluid	Yes
		Flow regulator	Hold		Speed	100.6 RPM @ 18.3%
		Rail pressure	26.8 psi (26.8 psi)			
		Tank level	401 gal — Normal @ 11.0 in			
Fertilizer: Good	2	Rate	6.0 gal/acre		Pump	
		Target	6.0 gal/acre		Suction	3.0 psi
		Flow	5.8 gal/min		Fluid	Yes
		Flow regulator	Hold		Speed	127.5 RPM @ 23.2%
		Rail pressure	60.3 psi (60.3 psi)			

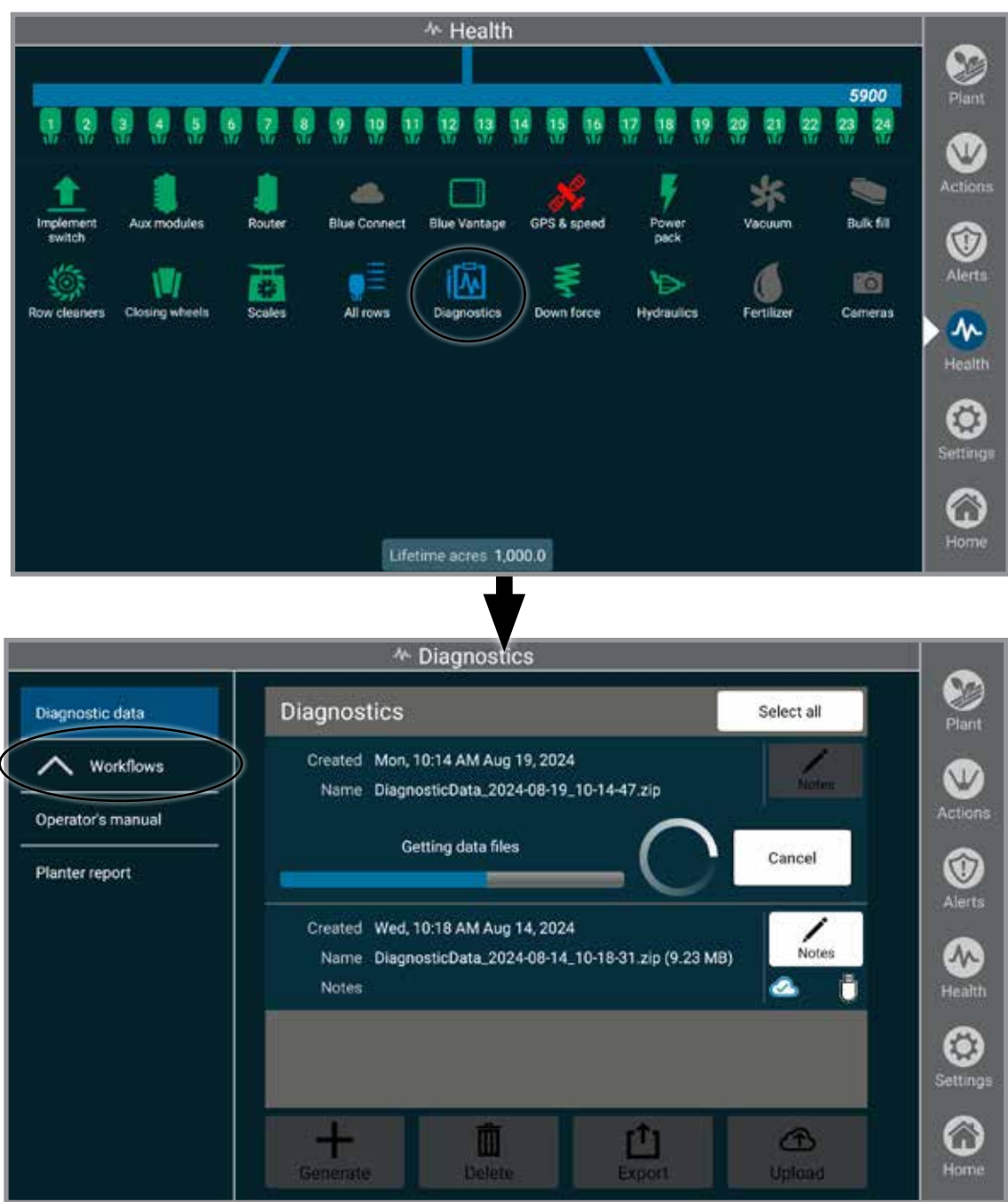
This page left blank intentionally.

DIAGNOSTICS - INTRODUCTION

Diagnostics guides you through the most common issues that might occur with Blue Drive / Blue Vantage. Enter diagnostics by selecting “Diagnostics” from the main Health screen. The topics will appear on the left hand side of the screen under “Work flows”, select the topic to begin step by step diagnostics.

NOTE: Tap on schematics, charts, or photos to enlarge viewing detail.

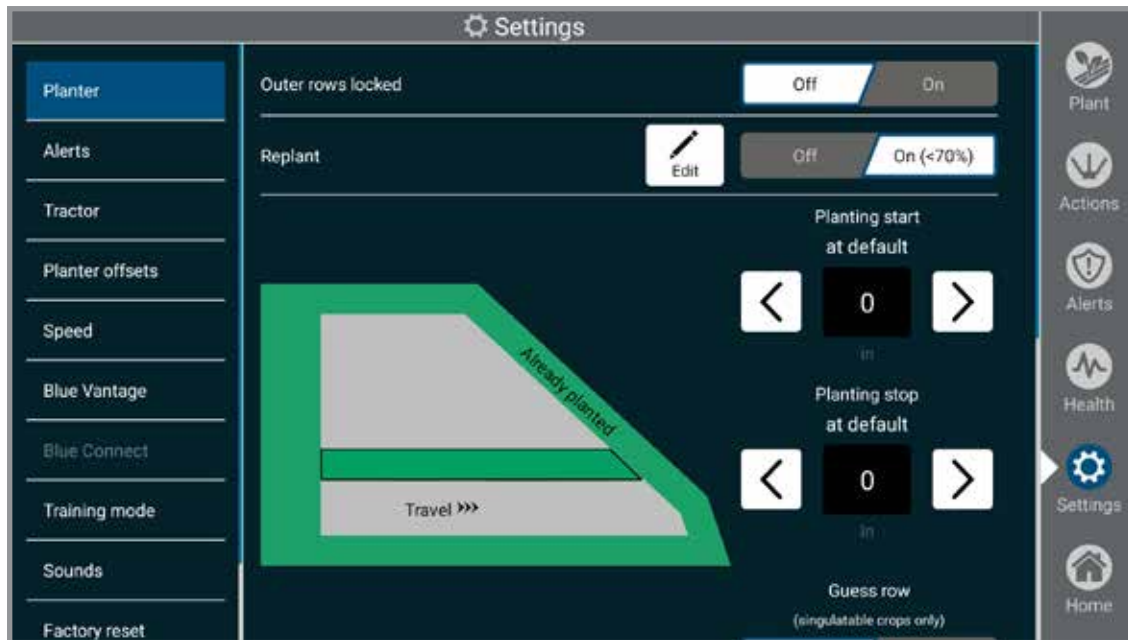
Diagnostic data can be generated for Kinze Service. Tap the “Generate” button to save the diagnostics. The diagnostic data can then be uploaded to Kinze using Blue Connect account or exported to USB drive. Additional notes can be added to diagnostics file. Delete any diagnostics that are not needed to free up storage space.



SETTINGS - INTRODUCTION

Blue Vantage provides the settings for many areas pertaining to the planter, tractor, and Blue Vantage display.

PLANTER



Outer Rows Locked. Locks the auto section control of the two outer rows so they will only be shut off when the row next to them is shut off. Use this setting when lower quality GPS receiver signal is being used.

Replant. Is "On" by default. When the planter is down within an already planted area, the "low threshold" for Population Target % is used to turn on any row that crosses over an area that is mapped red to apply seed, fertilizer, and insecticide (if applicable) filling in gaps.

Planting Start. Controls the distance for the meter to turn on and start dropping seed when leaving an already-planted area, or entering an area defined by a boundary or prescription file.

Planting Stop. Adjusts the distance for the seed meter to turn off when entering an already-planted area or leaving an area defined by a boundary or prescription file.

NOTE: Planting accuracy may be affected by sudden speed changes.

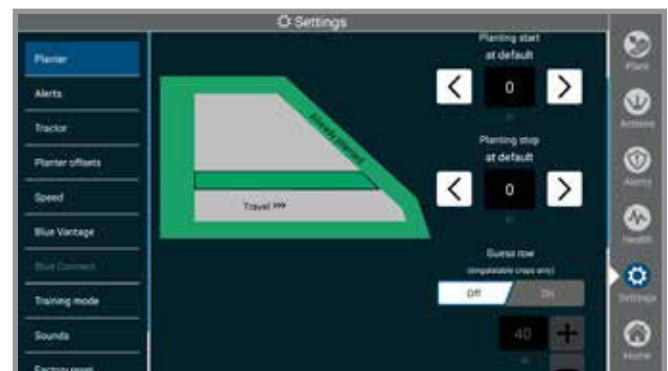
Guess Row. Leaves intentional visual gaps by shutting off the outermost planter rows. Defining clear boundaries between planter passes after crop emerges.

NOTE: Guess row only works with singulatable crops (corn, cotton, milo, sugarbeets, and sunflowers).

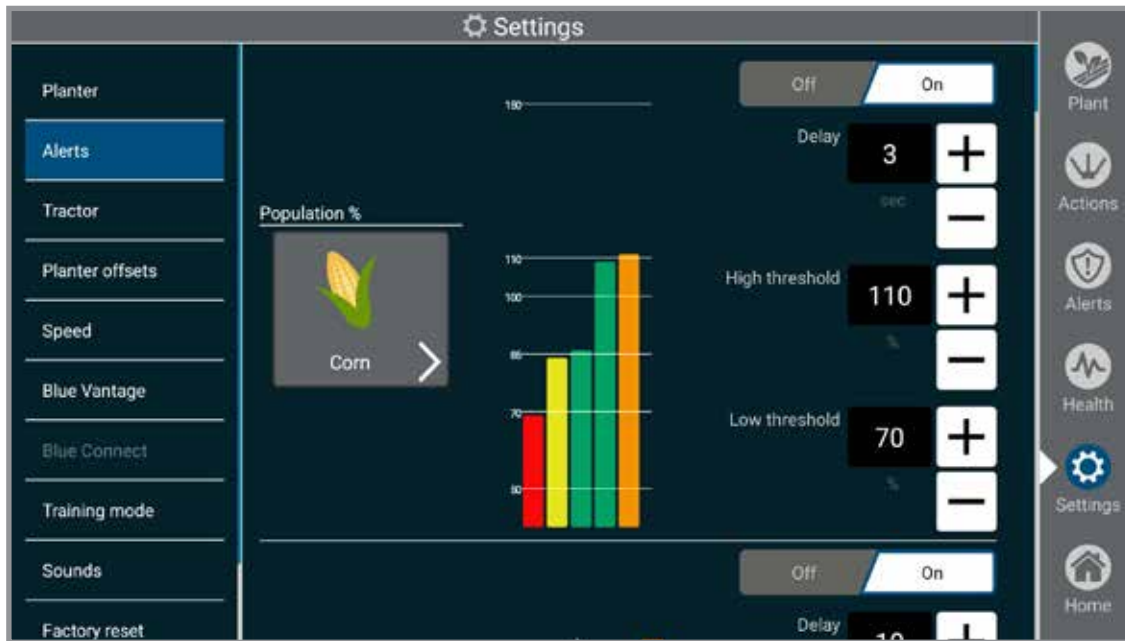
Manual Sections. Select the desired number of sections for manual shutoffs. See Shutoffs - [Page 26](#).

NOTE: Section controls have been calibrated by planter model. They can be adjusted manually for personal preference.

Advanced Diagnostics. Only enable this feature at the request of Kinze Service.



ALERTS

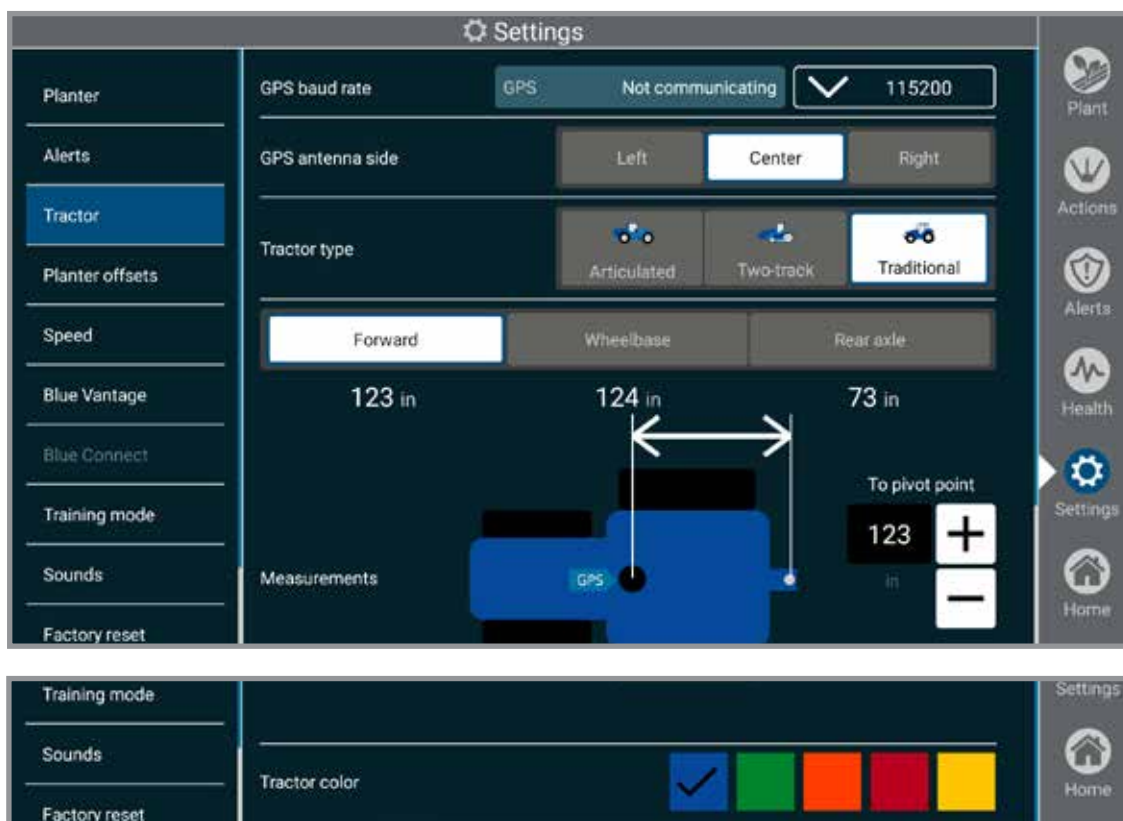


Alerts

Turn alerts on and off, set the thresholds that trigger applicable alerts, and set the time delay between when the condition is met and the alert is triggered.

Example: If the vacuum pressure high/low threshold is set to 10% and the delay is set to 10 seconds, a Vacuum Pressure High alert will be triggered when the vacuum pressure is above 10% of the desired value for more than 10 seconds.

TRACTOR



Tractor

Tractor-specific GPS and tractor offset information must be entered for accurate planting.

NOTE: Enter accurate GPS offsets or planting performance may be poor.

GPS Baud Rate. Set the GPS baud rate, setting needs to match GPS receiver baud rate being used.

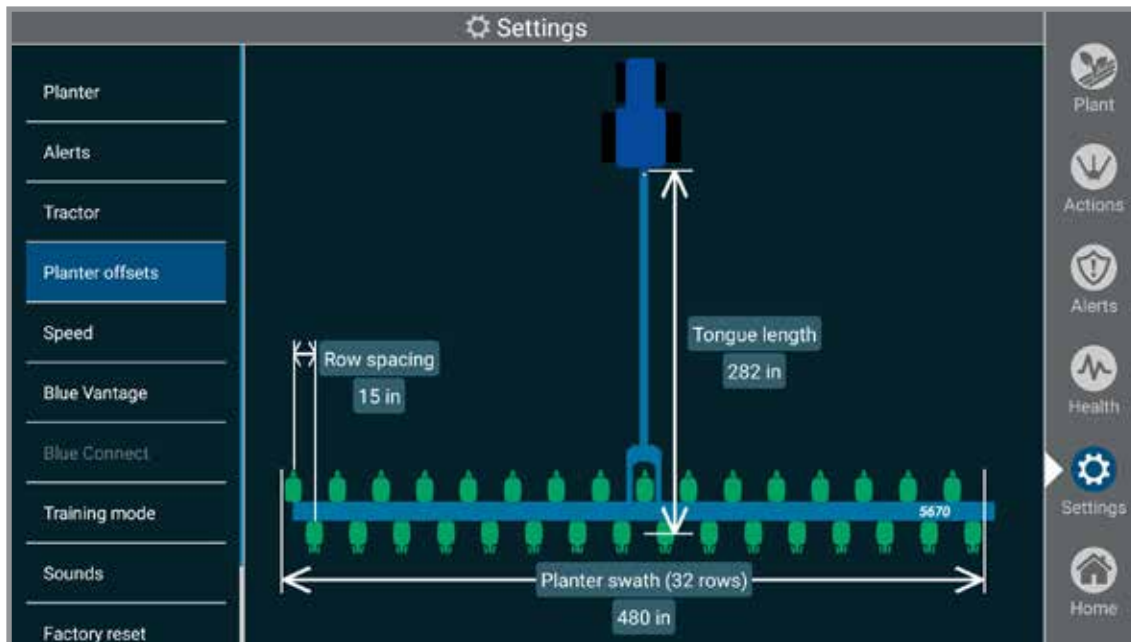
GPS Antenna Side. Set the location of GPS antenna.

Tractor Type. Set the tractor type.

Measurements. Set the tractor and GPS offsets.

Tractor Color. Set the display tractor color.

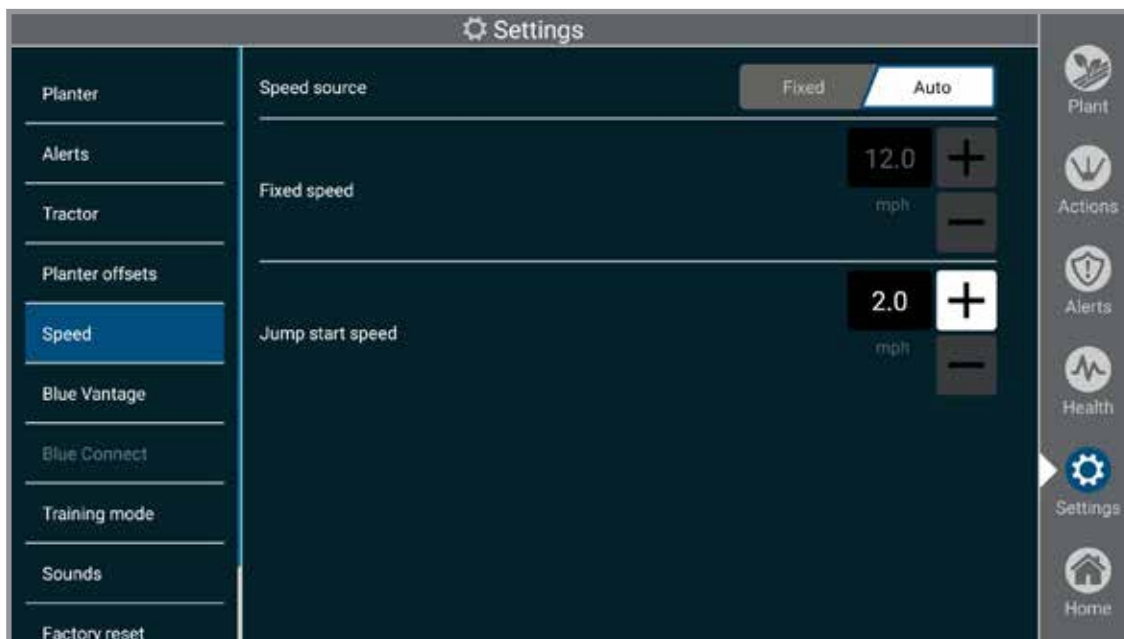
PLANTER OFFSETS



Offsets

Planter offsets are static and provided for the user's benefit. They cannot be edited in the system or physically adjusted.

SPEED



Speed

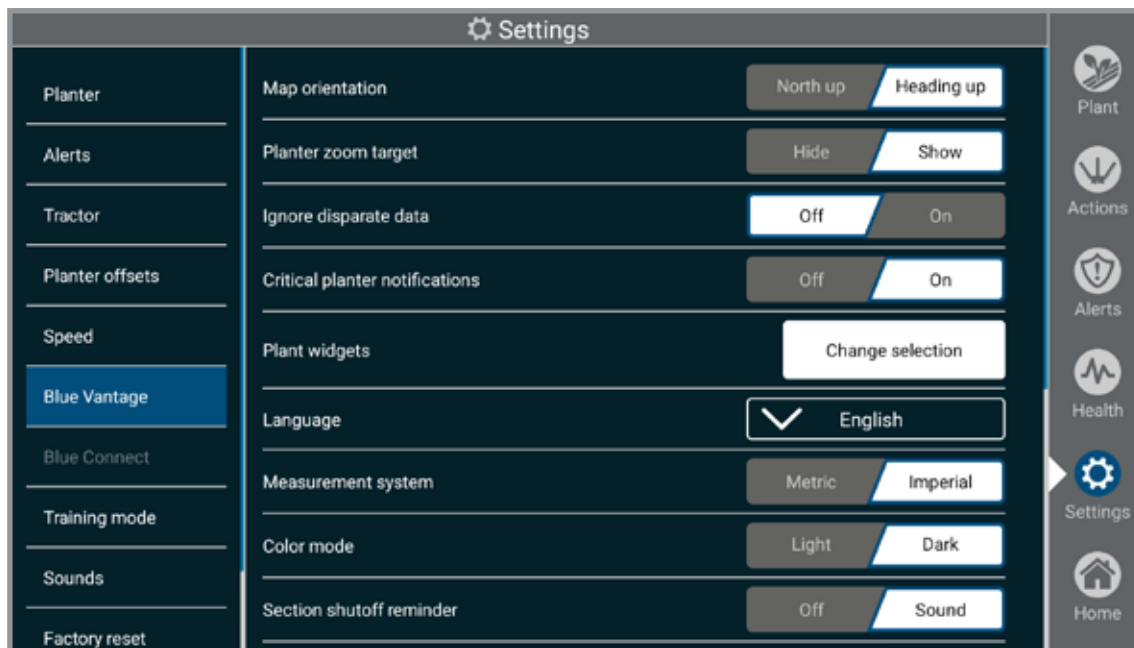
Speed Source. When auto is selected, the system will choose source based on available options. When fixed is selected, the system overrides other speed sources with a user-defined fixed speed.

NOTE: The planter seed meters will turn as soon as the toolbar is down when set to “Fixed”.

Jump Start Speed. Sets the speed limit for jump start. Once planter reaches the jump start speed, jump start will cease.

NOTE: Jump Start Speed is used for the first several seconds of movement, as GPS is acquired. Kinze recommends that the jump start speed be set to 2 mph.

BLUE VANTAGE



Blue Vantage

Map Orientation. Sets the map orientation. In the North Up option the map will remain oriented with North at the top. In the Heading Up option the map will change its orientation so that the planter's heading is always at the top.

Planter Zoom Target. Hides or shows the planter zoom target while on the plant screen. If the map is zoomed out, a target will be placed around the tractor and planter providing an indication of the current location in the field. The white arrow shows the current direction of travel.

Ignore Disparate Data. Focus field stats on the largest planted area within the task. Data from a far away second field or accidental toolbar drop elsewhere will be ignored.

Critical Planter Notifications. Should only be set to “off” when instructed to by Kinze Service.

Plant Widgets. [See “Plant Widgets” on page 11](#)

Language. Set the language.

Measurement System. Sets either metric or imperial measurement. **NOTE: If system is set to metric, it will be assumed that seed prescriptions are specified in seeds/hectare.**

Color Mode. Toggle between light and dark color modes.

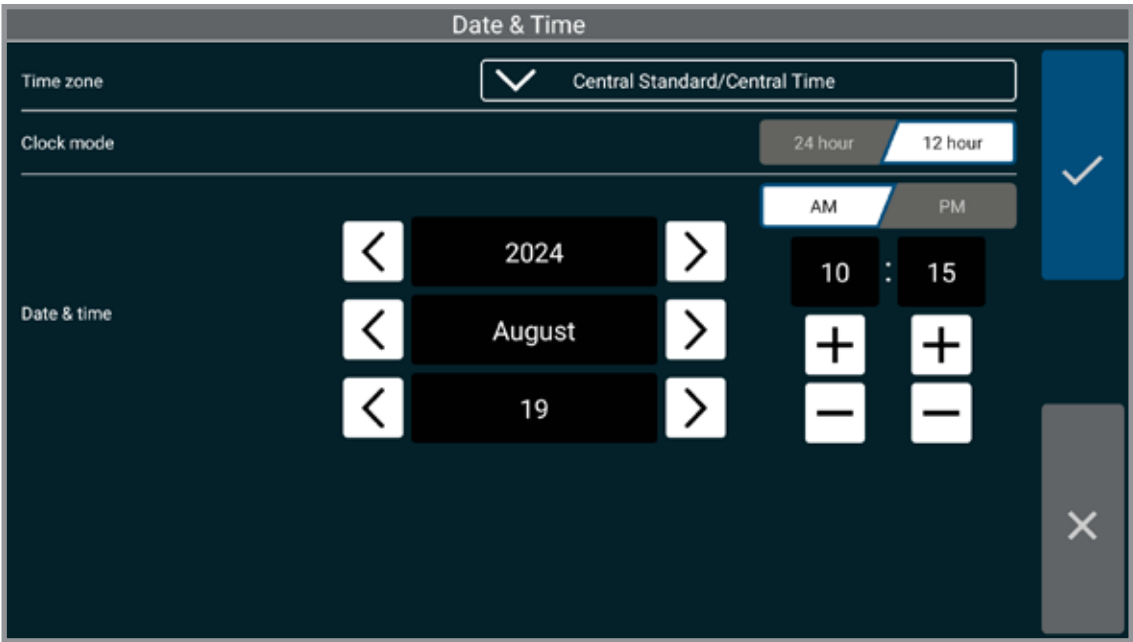
Section Shutoff Reminder. Turns audible reminder on or off, when section(s) is turned “off”.

Brightness. Sets the screen brightness. In the Auto option the display automatically adjusts brightness based on current light conditions. In the Manual option the brightness is manually set using the slider.

Volume. Use the Volume slider to adjust the volume of sounds, including alerts.

BLUE VANTAGE (CONTINUED)

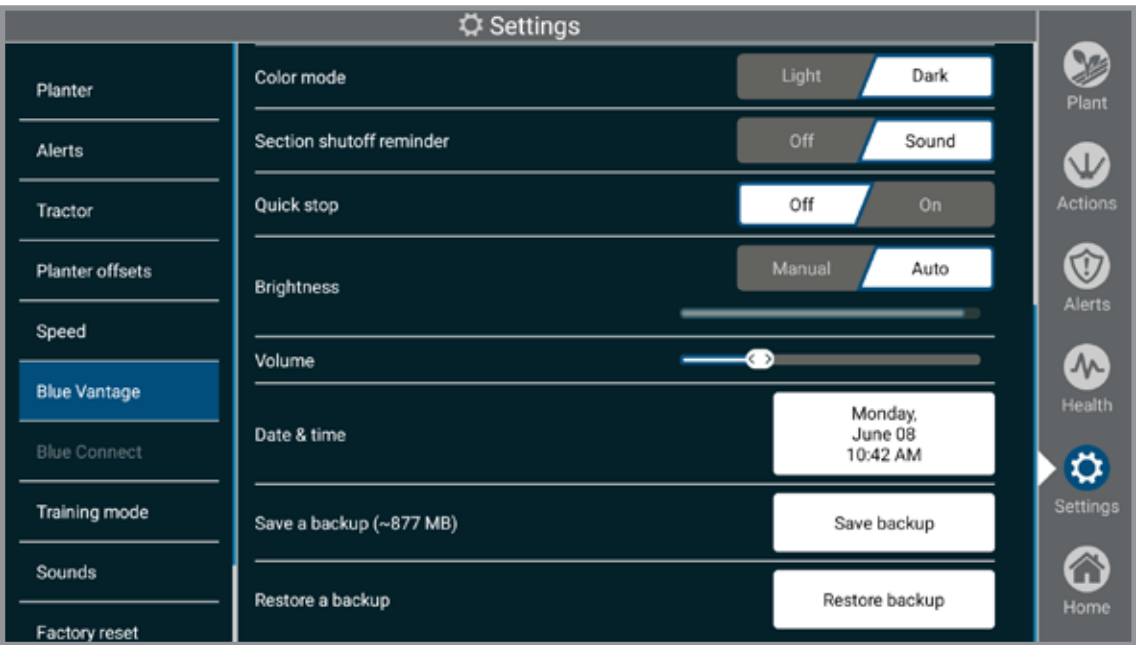
Date & Time. Opens the Date & Time screen. Date and time will be set automatically when you have a valid GPS signal. The time zone will not be set automatically however.



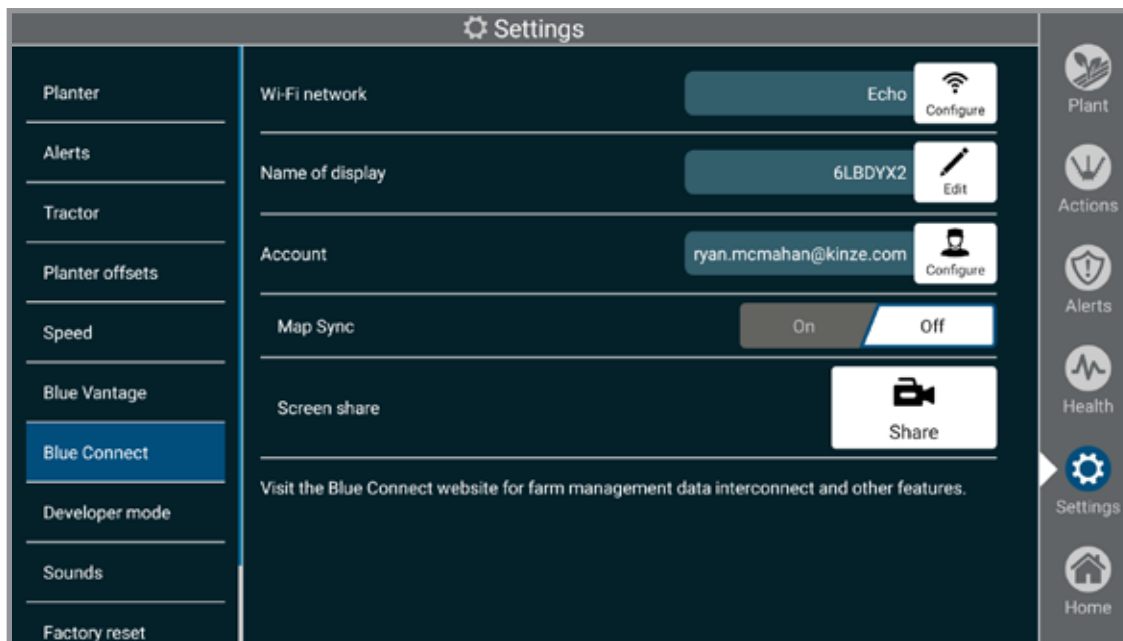
Date & Time

Save A Backup. Backs up the settings and user data to a inserted USB drive.

Restore A Backup. Restores settings and user data from the most recent back up on a connected USB drive.



BLUE CONNECT



Wi-Fi Network. Wi-Fi connects Blue Vantage to the Internet.

Name of Display. Defaults to serial number of Blue Vantage display, name can be changed. Display name will be associated with data planted by that display and viewable across other Blue Vantage displays on the Blue Connect account.

Account. Create a Kinze Blue Connect account to share data across your Blue Vantage displays.

Map Sync. If enabled, the Blue Vantage display will use Wi-Fi network to share data with other Blue Vantage displays associated with the Blue Connect server on the Internet.

Screen Share. Must be initiated by Blue Vantage Display, which then allows anyone to view display and help troubleshoot issue. Screen share is for viewing only. **NOTE: Screen share requires a Blue Connect account, go to: (<https://connected.kinze.com>) to create an account.**

When screen share is selected and turned on, a 6 digit session code will need to be given to the individual requesting access to the screen. The navigation bar will turn orange for the duration of session. Sessions are 30 minutes long and can be extended at anytime. Session can be ended at anytime from the Blue Vantage display.

NOTE: Blue Connect requirements apply, must have an account and internet.



Farm Management Data Interconnect. Allows you to send logged data to John Deere Operations Center™ and AgFiniti® through your Kinze Blue Connect account.



TRAINING MODE



Training Mode

Training Mode. Anything that is created in training mode is not available live.

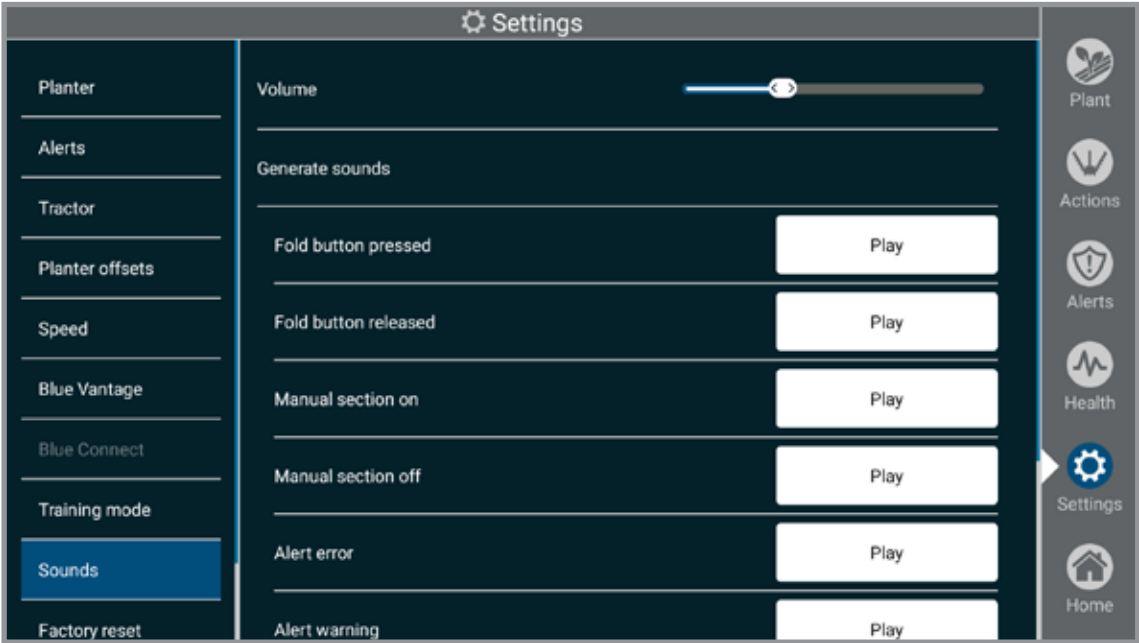
Importing boundaries or prescriptions from live mode is not possible, pre-loaded boundaries and prescriptions are available while in training mode.

NOTE: A Training Mode control box will appear on Home screen or Plant screen. This message is collapsible, but can be hidden in Training Mode Settings under “Simulate Planter Control”.

NOTE: Training Mode is still available while attached to a planter.

NOTE: Planting will not occur while Training Mode is active.

SOUNDS



Sounds. Systems sounds are available to become familiar with the different sounds that are generated.

FACTORY RESET



Factory Reset

Reset All. Resets all settings to factory default.

NOTICE

“RESET ALL” will reset all settings to factory defaults. This cannot be undone.

Other Settings:

Tap the arrow to expand the list and reset individual settings.

- Speed Settings
- Blue Vantage Settings
- Alerts Settings
- Tractor Settings
- Planter Settings
- Products

Wipe for sale. Restores Blue Vantage to factory defaults.

NOTICE

“WIPE FOR SALE” will remove all user data and restore settings to factory defaults. This cannot be undone.

MANAGE - INTRODUCTION

Blue Vantage provides management tools, tasks, reports, and file management.



TASKS



Tasks

Tasks. Manage the current tasks. Adding and editing tasks mirrors the task setup described on [Page 14](#). Tasks displayed here can also be deleted and exported to a connected USB drive. View and/or export a PDF file of any tasks performed, this requires a USB drive.

Tap “2026 [SELECT ALL]” to select all tasks for the season, either “Export” or “Delete” the selected tasks.

Tap “View” to see planting report and alerts for specific task.



To deselect tasks, tap “2026 [DESELECT ALL]”.

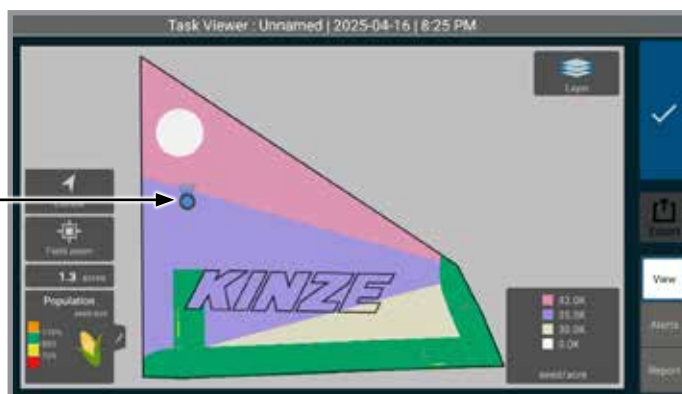


TASKS (CONTINUED)

RX and boundary are shown in each task listing if applicable for the task.



Tablet location will be represented with a blue dot on the screen, while viewing previously planted tasks. This will help in field scouting situations.



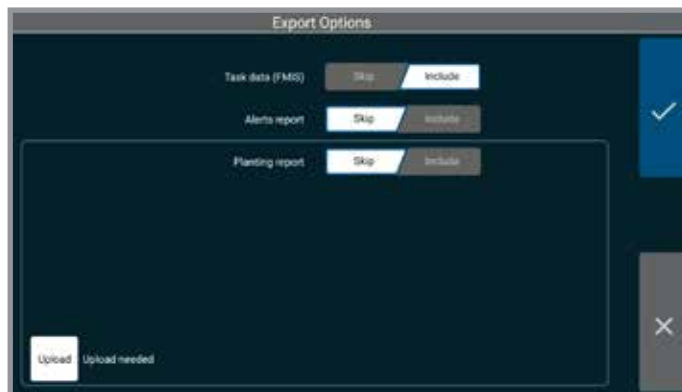
Export Options. Flash drive must be inserted into tablet.

TASK DATA (FMIS), select either “Skip” or “Include”.
NOTE: FMIS is 3rd party Farm Management Systems.

ALERTS REPORT, select either “Skip” or “Include”.

PLANTING REPORT, select either “Skip” or “Include”.

NOTE: Alerts and Planting reports are print-ready PDF files.



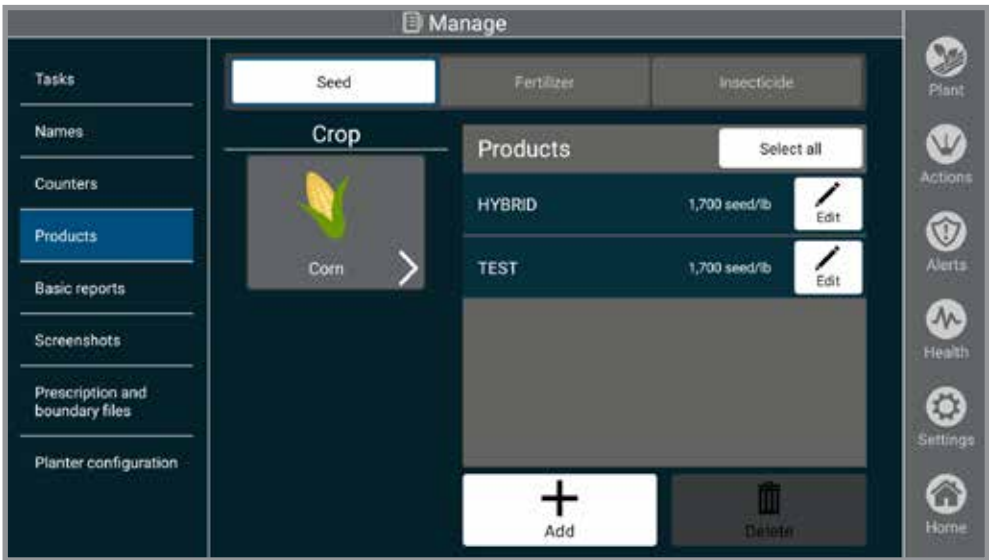
NAMES



Names

Names. Manage the current grower, farm, and field names. Adding names here is the same as in task setup described on [Page 14](#). Names can also be edited and deleted here. Any planted fields will be noted under the field name.

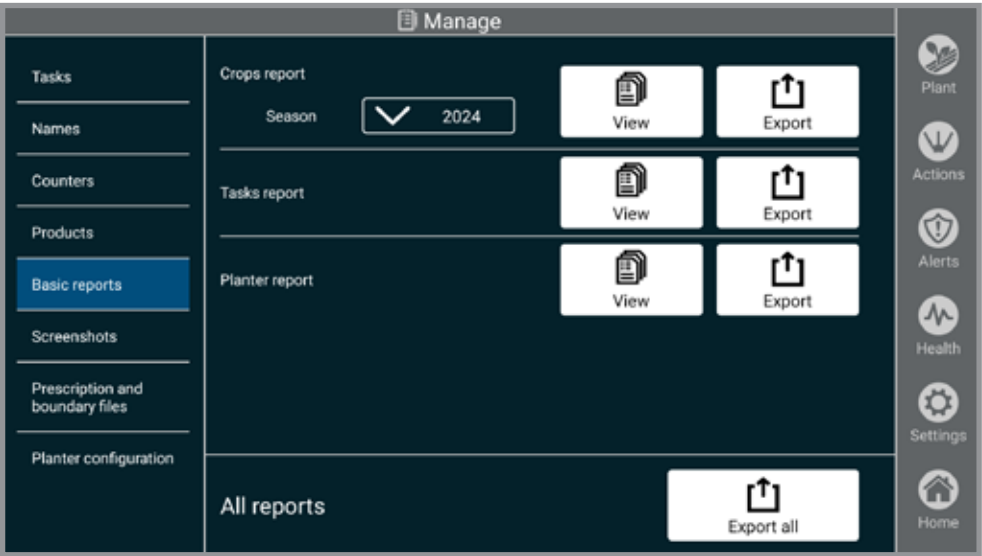
PRODUCTS



Products

Products. The process to add products mirrors the task setup as described on [Page 14](#).

BASIC REPORTS



Reports

View and export reports to a USB drive as a PDF file.

Crops Report. View a field by name, acres planted, products used.

Task Report. View hybrids/varieties planted for each grower, farm, and field by season.

Planter Report. View model information, lifetime acres, options, software version.

Details of 2:04 AM - Jul 05, 2024

Crops Report

Corn

2024

3.9
acres

Name	Products	Acres
Grower: Interface	Unspecified	3.6
Farm: Catalog	Unspecified	3.6
Field: Plant	Unspecified	3.6 Planted: 2024-07-09
Grower: Manage	HYBRID	0.3
Farm: Interface	HYBRID	0.3
Field: Catalog	HYBRID	0.3 Planted: 2024-07-09

1

Details of 10:29 AM - Aug 19, 2024

Tasks Report

Season 2024

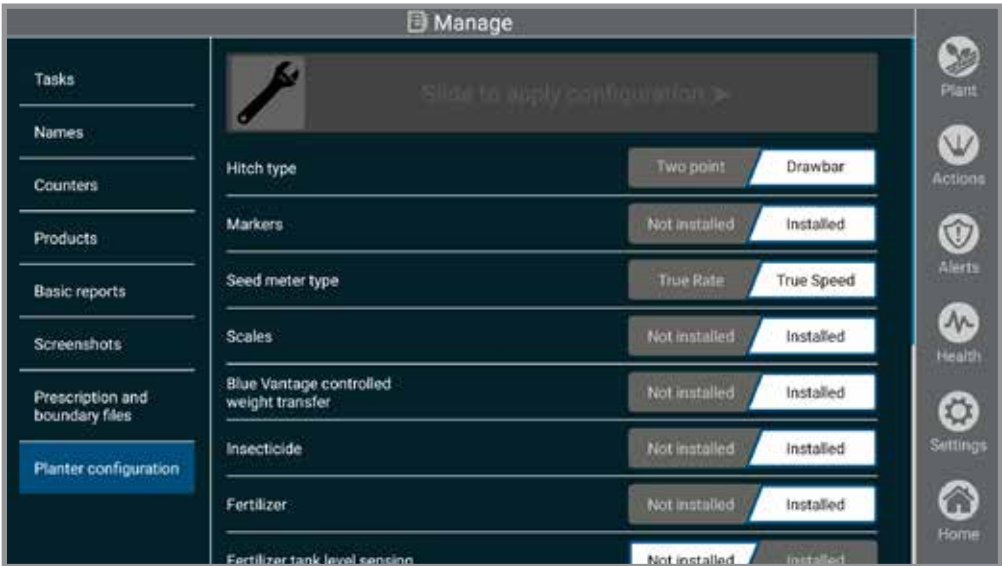
Grower	Variety	Acres
Kinze	Unspecified	0.7
Farm: North Liberty	Soybeans	0.7 Last planted: Aug 19, 2024
Field: The Pond		

Grower	Hybrids	Acres
Kinze	---	
Farm: North Liberty	Corn	0.0 Last planted: Apr 23, 2024
Field: The Pond (2)		

Grower	Varieties	Acres
Kinze	---	
Farm: North Liberty	Sunflowers	0.0 Last planted: ---
Field: The Pond (3)		

1

PLANTER CONFIGURATIONS



Planter Configuration

View features that are installed and if feature is currently active on planter. To update planter configuration “Slide to Apply Configuration”.

NOTE: If a feature has been added or removed after the planter has left the factory, the changes should be updated in the planter configuration so the Blue Vantage displays the proper controls.

SCREENSHOTS



Screenshots

Title Bar. If the screen has a title bar, touch and hold for 2 seconds to capture a screenshot. A “Screenshot captured” message will appear at the bottom center of the screen.

NOTE: Capturing screenshots will vary depending on which page you are on.

Other Screen. If the screen does not have a title bar, hold on “HOME”. A “Screenshot captured” message will appear at the bottom center of the screen.

Manage. Screenshots can be deleted and exported to a connected USB drive.

Notes. Add comments and markings to screenshots.



FMIS SUPPORT

NOTE: See [Blue Connect website](https://connected.kinze.com/en/login) (<https://connected.kinze.com/en/login>) for farm management data interconnect and other features.

Blue Vantage supports the following Farm Management Information Systems Providers:

NOTE: For a more detailed description of Kinze Blue Vantage supported prescriptions, please see the [Blue Vantage Rx and Boundary File Integration Guide](#). [See Kinze.com](https://www.kinze.com).

Ag Leader Technology (Fully Supported by Blue Vantage)

SMS, AgFiniti

- Export Boundary Files in Kinze KML format.
- Export Planting, Fertilizer and Insecticide Prescriptions in Kinze KML format.
- Support for importing ISO 11783 planting, down force, fertilizing, and insecticide as-applied log data.

Granular Inc. (Fully Supported by Blue Vantage)

AgStudio, Mapshots, Pioneer Encirca

- Export Boundary Files in Kinze KML format.
- Export Planting, Fertilizer and Insecticide Prescriptions in Kinze KML format.
- Support for importing ISO 11783 planting, down force, fertilizing, and insecticide as-applied log data.

Climate Corp. (Partial Blue Vantage Support)

FieldView

- Export Boundary Files in Kinze KML format.
- Export Planting prescriptions in Kinze KML format.
- Support for importing ISO 11783 planting, fertilizing, and insecticide as-applied log data.

Note: Climate FieldView Inbox does not support mapping down force layers. Down force layers can only be mapped with the FieldView Drive.

Note: Blue Vantage does not support prescriptions from Climate FieldView containing planting and fertilizing rates in the same file. Each operation (planting, fertilizing, and insecticide treatment) must be a separate prescription file.

John Deere (Partial Blue Vantage Support)

Operations Center

- Support for ESRI Shapefile prescriptions created with John Deere Operations Center TELUS Agronomy Prescription Creator.

Note: Prescriptions exported from TELUS Ag Prescription Creator do not contain Grower, Farm, Field, and Crop type information. Blue Vantage auto-task generation will be limited.

- Support for importing ISO 11783 planting, fertilizing, and insecticide as-applied log data.

PRESCRIPTION AND BOUNDARY FILES

Import and select prescription and boundary files.



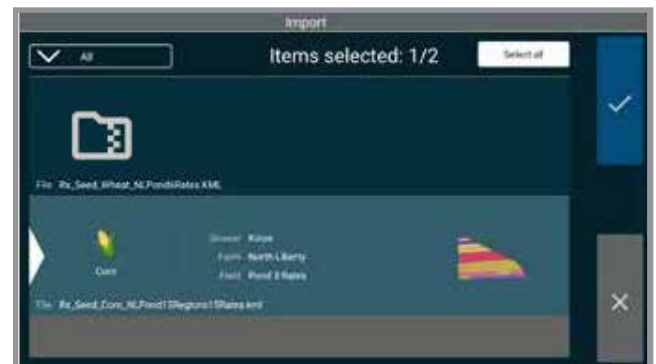
Prescription and Boundary Files

Tap “Select All” to select all prescription files.

Tap “Import” to load new prescriptions onto Blue Vantage.

NOTE: If system is set to metric, it will be assumed that seed prescriptions are specified in seeds/hectare.

NOTE: Prescription and boundary files should be in Google KML file format or ESRI Shapefile format. Prescription files must contain specific attributes to import correctly. If the required attributes are missing and the file contains valid geometry, the prescription file will be imported as a boundary file. See below for required and optional file attributes.



Prescription File Setup

When making prescriptions, 3 file attributes are required. “TargetRate”, “Units”, and “Operation”. The values for each required attribute are:

1. The “TargetRate” value must be a number representing the seed, fertilizer, or insecticide rate measured in the “Units” attribute.
2. Supported “Units” attribute values are in “sds/ac” for seed, “gal/ac” for fertilizer, and “lb/ac” for insecticide. These are the only units of measure supported.
3. The values for the “Operation” attribute in a prescription file must be “Planting Prescription”, “Fertilizing Prescription”, or “Insecticide Prescription”. Only 1 operation value per file is permitted. A single file can only be a planting, fertilizing, or insecticide prescription file.

NOTE: Prescription and boundary files may contain a set of optional attributes that will be used to fill in names and auto-generate tasks on the Blue Vantage display. These attributes are Grower, Farm, Field, Crop, Product, and Year. FMIS solutions such as Ag Leader SMS will add these attributes automatically when exporting prescriptions and boundary files from their management software.

PRESCRIPTION AND BOUNDARY FILES TROUBLESHOOTING

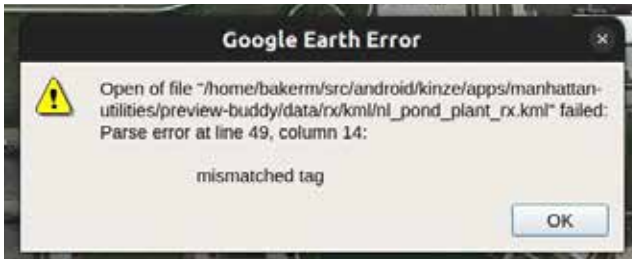
This below table lists common errors and captures ways to troubleshoot and fix errors when importing prescription and boundary files into Kinze Blue Vantage.

For details on formatting required for Kinze Blue Vantage prescriptions and boundary files, see the document Kinze Blue Vantage Prescription & Boundary File Integration Guide. This document provides details of layout, format, and attribute data required for Kinze Blue Vantage prescriptions and boundaries.

Common Errors

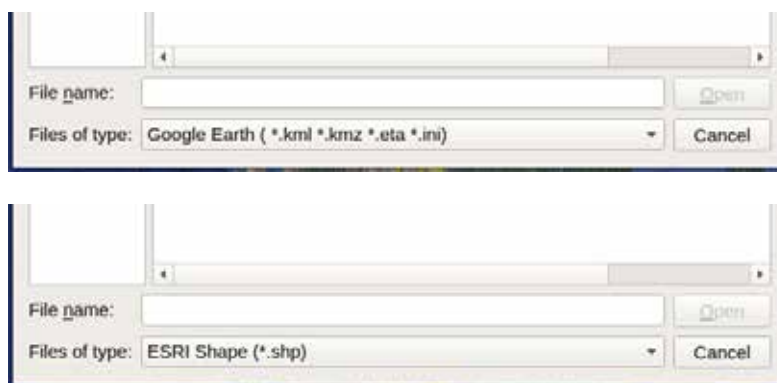
This section provides information on known errors in Blue Vantage and what to do when they are encountered.

ERROR	DESCRIPTION	TROUBLESHOOT
Prescription Imports as a Boundary	If the required attribute data is not included in the prescription file, but the geometry in the file is valid, the prescription will be imported as a boundary. Once the required attribute data is included in the file with valid geometry, the file will successfully import as a prescription. When exporting prescriptions from Ag Leader SMS, Granular AgStudio, or Climate FieldView these attributes will be automatically added to the file. These farm management tools will export the file as a Google KML file. This is a general indication that the file came from one of those tools and should contain the correct named attributes and attribute values. Blue Vantage supports importing ESRI Shapefiles and KML. Typically, customers who run into this issue are attempting to import ESRI Shapefiles created for other displays. Attribute data for ESRI Shapefiles are stored in a separate file. For prescriptions, the minimum file set should contain a .shp and a .dbf file. The .shp file contains the geometry data. The .dbf file contains the named attribute data.	KML & ESRI Shapefile attribute data can be viewed and verified by importing the file into Google Earth Pro and clicking the imported map. The attribute data should contain at a minimum an "Operation", "TargetRate", and "Units" attribute to be imported as a prescription. If the "Operation" or "TargetRate" attributes are missing, the file will be imported as a boundary. In this example geometry is valid. All the required and optional attributes are contained within the file for the selected polygon.  In this example, the operation attribute is missing. Since Blue Vantage is unable to determine if the prescription is a planting, fertilizing, seed proposal, or insecticide (treatment) prescription, the file will be imported as a boundary. Supported operation values are "Planting Prescription", "Seed Proposal", "Fertilizing Prescription", "Treatment Prescription", or "Boundary". Also, if the TargetRate attribute is missing or invalid, the prescription will be imported as a boundary. Acceptable names for planting target rate attributes are; "TargetRate", "TargetRate(sds/ac)", "Target_Rate", "Tgt Rate", "Target_Rat", "sds_ac", "SEEDS", "Seed_Rate", "Tgt_Rate_s", or "TGT_RATE". If the prescription contains an attribute with one of these names and the rate values are in seeds/acre along with an operation attribute of "Planting Prescription", or "Seed Proposal". The prescription will be imported successfully. 

ERROR	DESCRIPTION	TROUBLESHOOT
Invalid Geometry & XML	Some invalid geometry is automatically resolved on import into Blue Vantage. However, some invalid geometry cannot be resolved.	If the file imports into Google Earth, but the map is very large and encompasses an area larger than expected the point coordinates for a specific polygon may be incorrectly formatted. The bad coordinate will need to be repaired, or the file will need to be recreated. If the file fails to import in Google Earth Pro, this file may be corrupted and will need to be recreated. In this example, the XML was not formatted correctly which caused an error to be displayed in Google Earth. Some basic error information may be presented in the error message along with a line number in the file. The XML will need to be repaired, or the file will need to be recreated. 

Importing files into Google Earth Pro

KML & ESRI Shapefiles can be opened directly by clicking the File > Open menu option. KML will be the default file type. Set the file type to ESRI Shape for .shp files. Once the file is opened successfully, the default behavior of Google Earth will be to fly into the area where the map is generated.

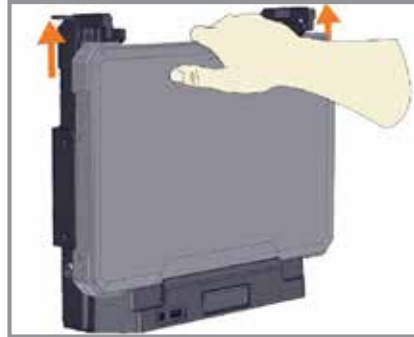


Once the map is shown on the screen, clicking on the mapped area will show the available attributes. If the required Operation, TargetRate, and Units attributes are not displayed, this file cannot be imported as a prescription into Blue Vantage.

UNDOCKING BLUE VANTAGE



If previously locked, unlock docking station with the supplied key.



While holding the display with one hand, lift the latch handles. The front hooks will release the tablet.



When unlatched, grab both sides of the display and carefully lift up and out of the docking station, top end first.

Undocking Blue Vantage

NOTE: Manage and Settings can be accessed while the display is out of the dock, but all functions requiring Blue Drive will be unavailable. The display will run on battery power unless connected to an AC power source.

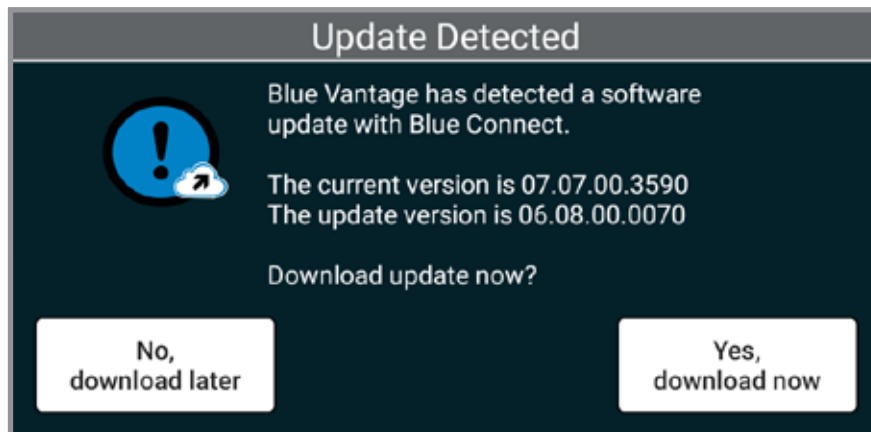
BLUE VANTAGE PORTS



Blue Vantage Ports

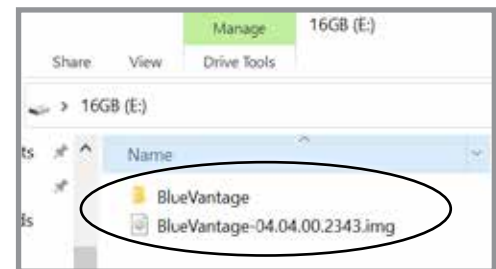
1. Power Connector
2. Micro Serial Connector
3. USB 3.1 Gen1 Type-C Connector
4. USB 3.0 Connector
5. Micro SD Card Reader
6. Headset Connector
7. Power Button

UPDATING BLUE VANTAGE



Updating Blue Vantage

System updates will be released periodically on the Kinze website. To update the Blue Vantage system, simply download the file and place it on the root (top file level) of a USB drive. Insert the USB drive and follow the on-screen prompts to update.



NOTE: The planter systems will be automatically updated when the Blue Vantage system restarts. Additional time may be required before the system is ready to plant.



BIOS Updates are required in order for system to function properly.

Over the Air (OTA) Updates

When the Blue Vantage tablet is configured to connect to the Internet via Wi-Fi, software updates can be downloaded over the air and applied. USB drive is not needed.

When the Internet connection is active, Blue Vantage will check for an update every time it is turned on.

Check for updates manually using the button on the About page with Settings. Blue Vantage updates are released once per year, prior to the planting season. Keep your software up to date for the latest features and fixes. Kinze does not charge for these updates.



GPS PERFORMANCE FACTORS

Shutoffs and section control in Blue Vantage rely almost entirely on GPS. While GPS provides extremely reliable data, several considerations remain when applying that data to section control in Blue Vantage. The following conditions may have an impact on the ability of the system to turn on and shut off.

Time Conditions

The accuracy of GPS in the US is measured based on a 15-minute window. Pass-to-pass accuracy may be reduced if the time to return to a known point (parallel to a planted row, or crossing a headlands, for example) is longer than the 15-minute window. The effect of time conditions on section control can be minimized with accurate and updated corrections services, such as SF2 or RTK.

Section Control

Several factors may impact the accuracy of section control. This section explains the factors that can impede the set-up process and establishes some expectations for shut-off accuracy.

Effects of GPS Accuracy on Section Control

- GPS accuracy is one of the biggest factors in the accuracy of Section Control. Accurate shut-off and turn-on performance is not possible without a high-quality GPS signal. Section Control accuracy may vary by signal quality or by receiver.
- RTK is the preferred GPS type, though subscription fees may apply. A WAAS signal is acceptable, but may result in turn-on and turn-off accuracy of +/- 4 feet.

Effects of Driving Habits on Section Control

Section Control is much more accurate if a few basic driving best practices are followed:

1. Assure that entry to and exit from the headlands is at a constant speed. If conditions require a slowdown prior to entry, do so no less than 100 feet early. Maintain your adjusted speed until exiting the headlands.
2. Assure that the toolbar is down when exiting the headlands.
3. Turn-on performance when exiting the headlands may be impacted by turning compensation. Assure that the planter is in line with the tractor at least 10 feet prior to exiting the headlands.

Effects of External Variables on Section Control

Several additional factors may affect how the section control system drops seed in the ground.

Seed Disc Position

Seed meters may turn on or off in different positions. This may result in slight variances in seed placement between rows.

Seed Tube Bounce

Seed dropped through a seed tube is prone to bounce. Seed travel through the tube and bounce on the ground may result in a slight variance in seed placement between rows. This variance may be more pronounced at higher speeds and in rough conditions when the potential for bounce is greater.

Electric Motor Start-Up

In order to avoid stall, electric motors ramp up slightly more slowly than clutched motors. This may result in one skip at start-up. We recommend that when setting turn-ons, adjustments are based on a measurement of the distance to full population, disregarding the first dropped seed.

GPS Measurements

It's also important to have accurate measurements from the GPS unit to the planter, as outlined in the Blue Vantage setup.

Motion Model Considerations

Blue Vantage includes a sophisticated representation of the motion of the planter referred to as Motion Model. This allows the software to better represent the planter's position in space and to drop seed accordingly. Motion model has to account for the time and corrections variations between systems, and arrive at location calculations that are "most likely".



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