



This document is designed to provide basic support for implementing variable rate seeding in common precision ag equipment. It is neither an operating manual nor a set-up guide for the monitor. Rather, it is a general set of principles designed to provide help with trouble shooting while preparing for a VRS operation.

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Updated: 3/29/2016

Prescription File Management

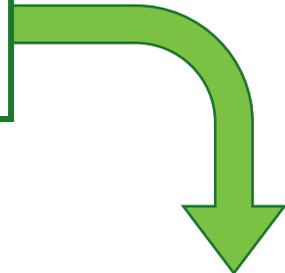


Prescription File Management Ag Leader Integra

1

When using shapefiles for VRS Prescriptions, there will typically be 4 unique file types (*.shp, *.shx, *.dbf, and *.prj) for each prescription generated.

Prescription units must be in **seeds per acre**.

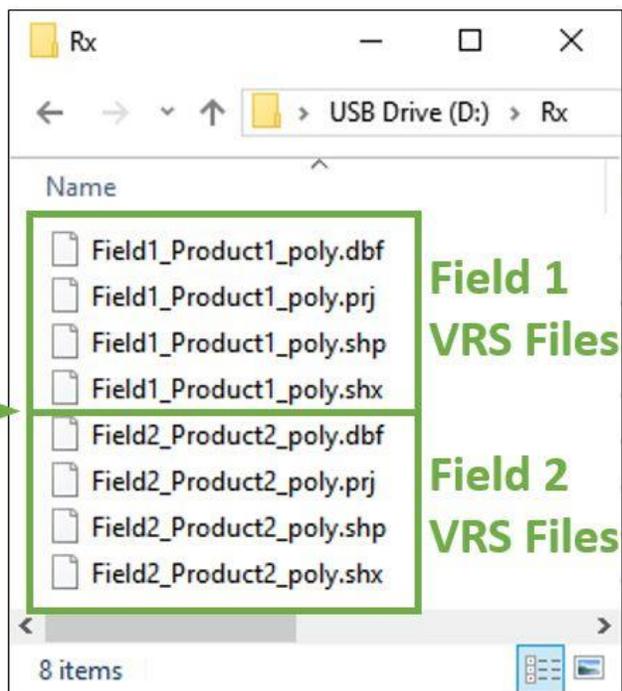
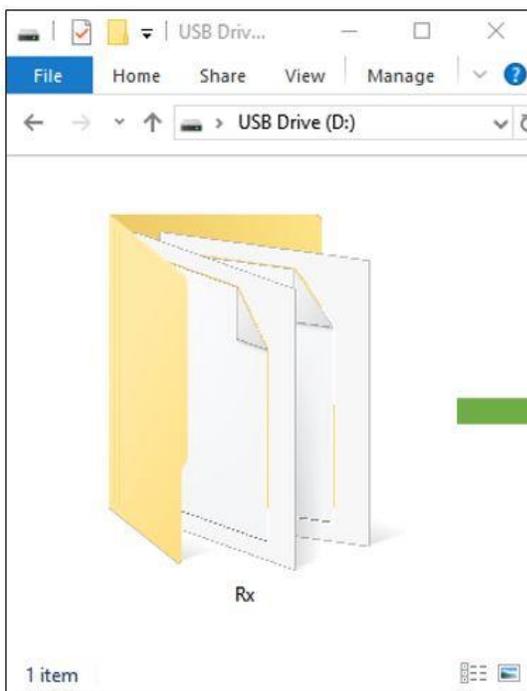


2

On a blank USB thumb drive, create a folder named "Rx" at the highest level of the drive (i.e. D:Rx).

Using Windows Copy/Paste tools, copy all the individual shapefiles into this folder. There are four files per field, so for a customer with more than one prescription per field, there will be several files in this new Rx folder.

Multiple VRS shapefiles can be in the same folder. To help identify the correct shapefile to use in the field, use the field name and product name to name the shapefile.



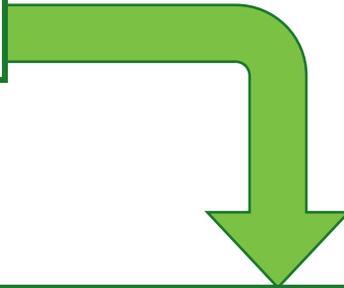
Prescription File Management

Ag Leader Integra

1

It is recommended to use the Ag Leader .irx format because it requires less work to import the prescription file onto the display.

Prescription units must be in **seeds per acre**.

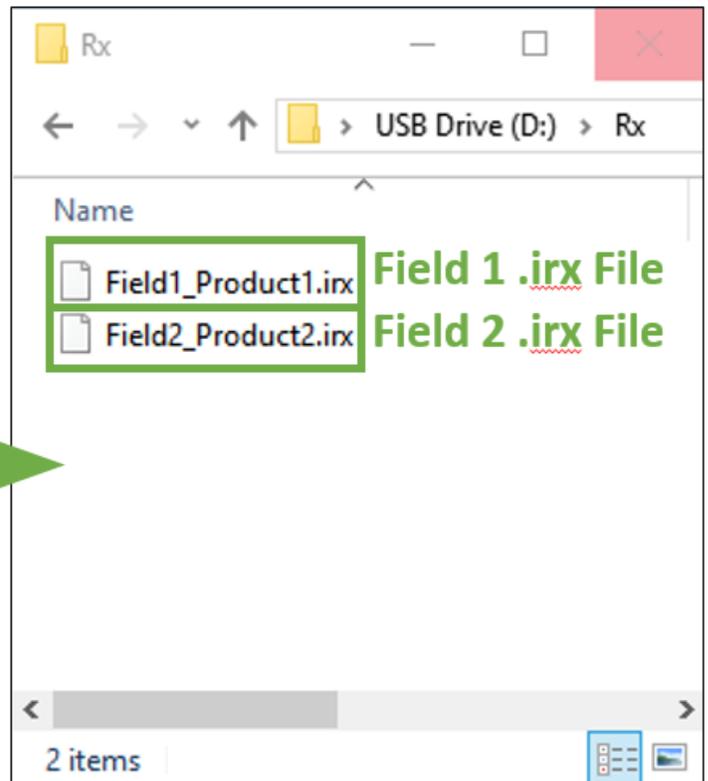
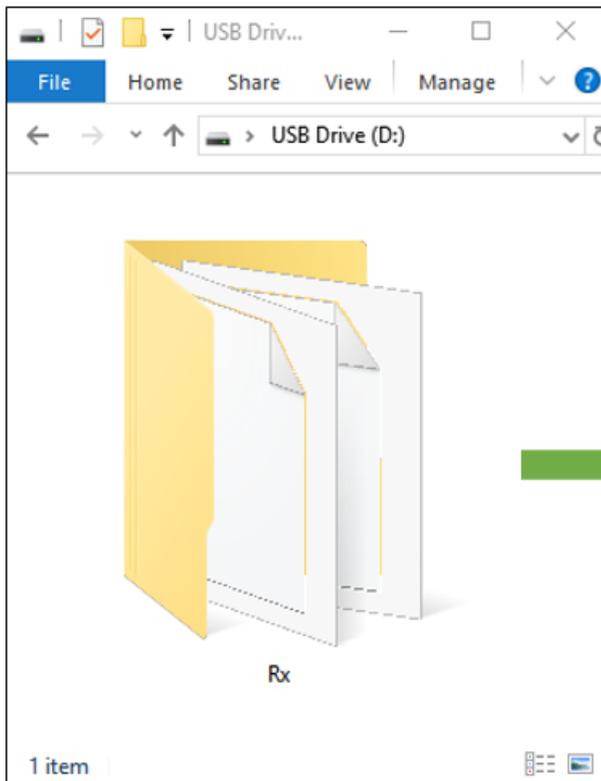


2

On a blank USB thumb drive, create a folder named "Rx" at the highest level of the drive (i.e. D:Rx). Using Windows Copy/Paste tools, copy all the individual .irx files into this folder.

There is only one file per field so for a customer with more than one prescription per field, there will be a .irx file for each field and product in the Rx folder.

Multiple VRS .irx files can be in the same folder. To help identify the correct .irx file to use in the field, use the field name and product name to name the .irx file.



Importing and Planting with a VRS Prescription Map



Importing and Planting with VRS Prescription Files Ag Leader Integra

1

Insert the USB drive containing the Rx folder and shapefiles into the Integra display.



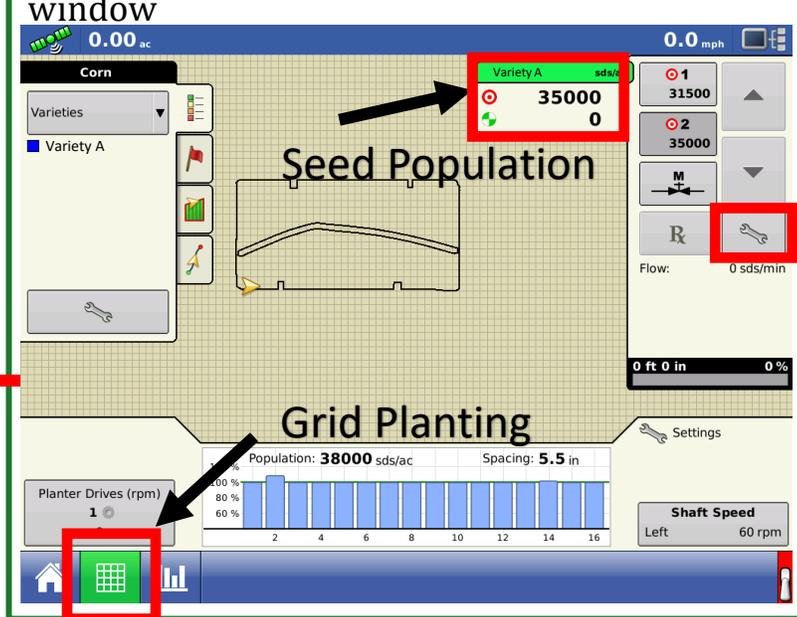
3

Press the wrench button on the right hand side. If the wrench is not available you may need to press the seed population button to make this visible.



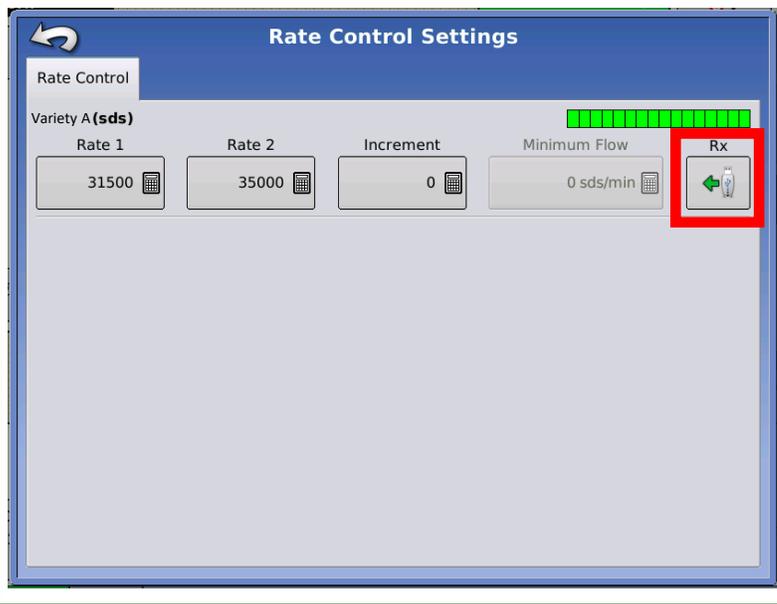
2

Start from the grid planting screen of the Integra. If the grid planting screen is not available please consult the equipment Brand. Press the Seed Populations tab to expand the window



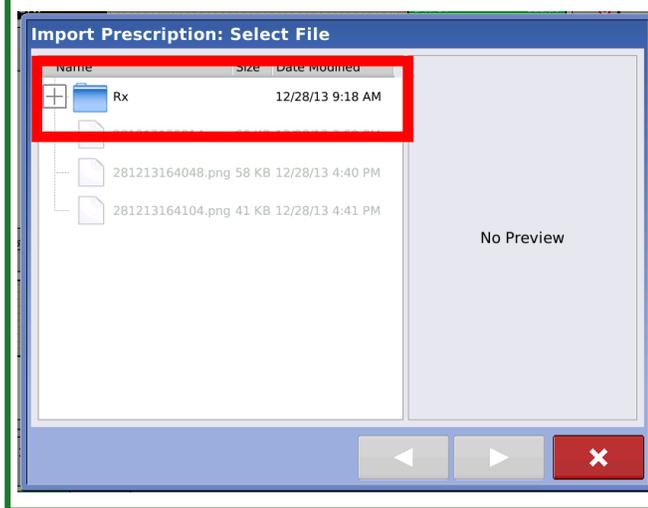
4

On the Rate Control Screen press the USB drive icon under the Rx label. If the icon is not shown or active the USB drive is likely not installed in the display correctly.



5

The Import Prescription Select File screen will show a folder map similar to a PC. You will use the touch screen to navigate to the prescription file for the desired field.

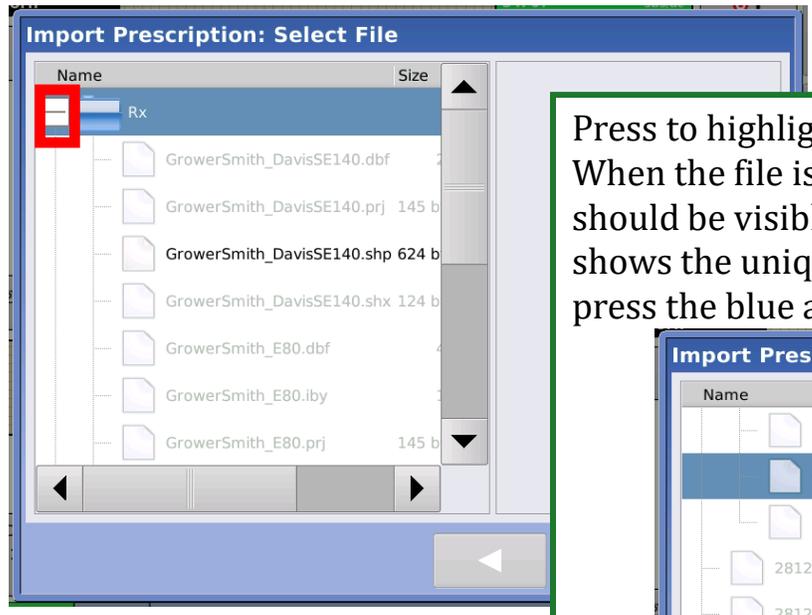


Importing and Planting with VRS Prescription Files

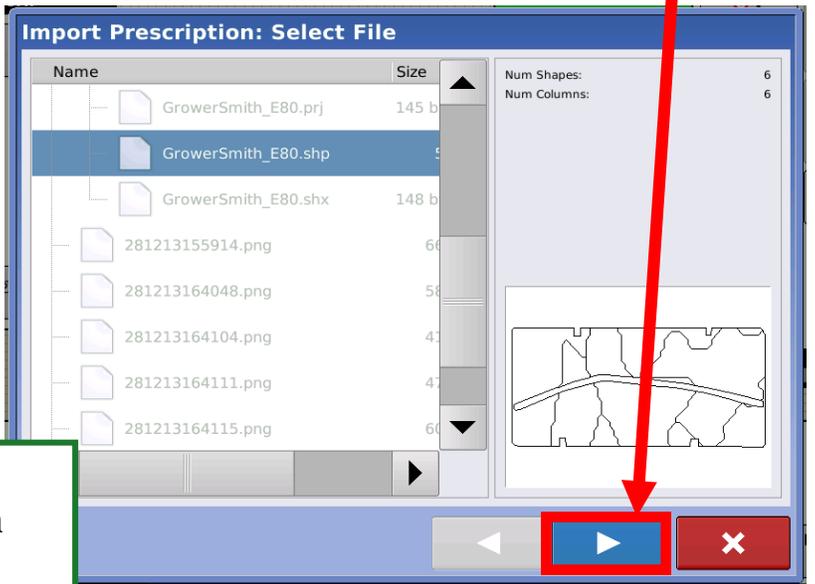
Ag Leader Integra

Press the + sign next to the Rx folder to see the files inside the folder.

6



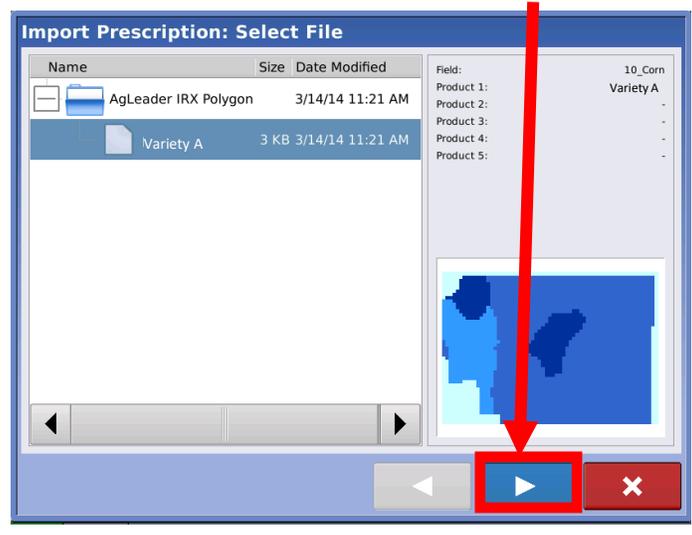
Press to highlight the **shapefile** for the desired field. When the file is selected a boundary map of the field should be visible in the lower right hand corner which shows the unique VRS prescription zones. Once selected press the blue arrow.



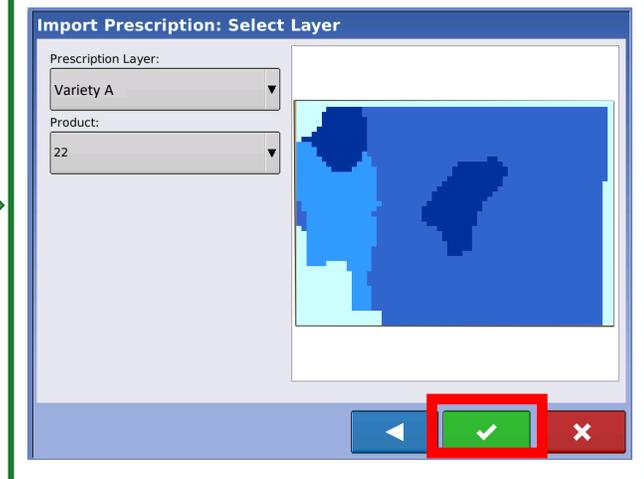
7

7b

Press to highlight the **.irx** file for the desired field. When the file is selected a prescription map of the field should be visible in the lower right hand corner which shows the unique VRS prescription. Once selected press the blue arrow. Steps 8 and 9 (selecting column and preview window) can be skipped when using a **.irx** file.



Once the Prescription layer and product have been selected press the green check mark. Refer to step 10 (rate control settings) for more details.



Importing and Planting with VRS Prescription Files

Ag Leader Integra

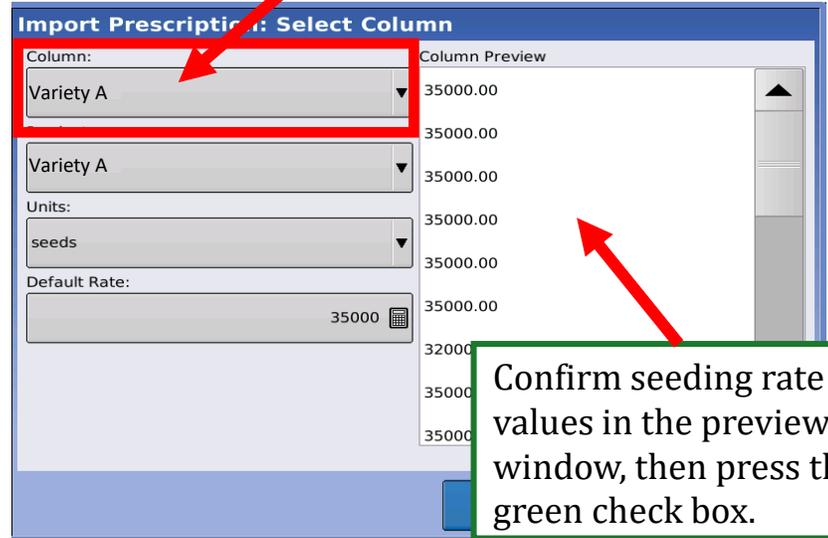
In the Import Prescription window make sure the Column is set to the variety for the current field. This is typically not the default.

Other tags for this are Tgt_Rate, Target_Rate, or Seeding_Rate among others.

When the correct Column is selected you will see a series of values in the Column Preview window that will be very close to the seeding rates prescribed for the field.

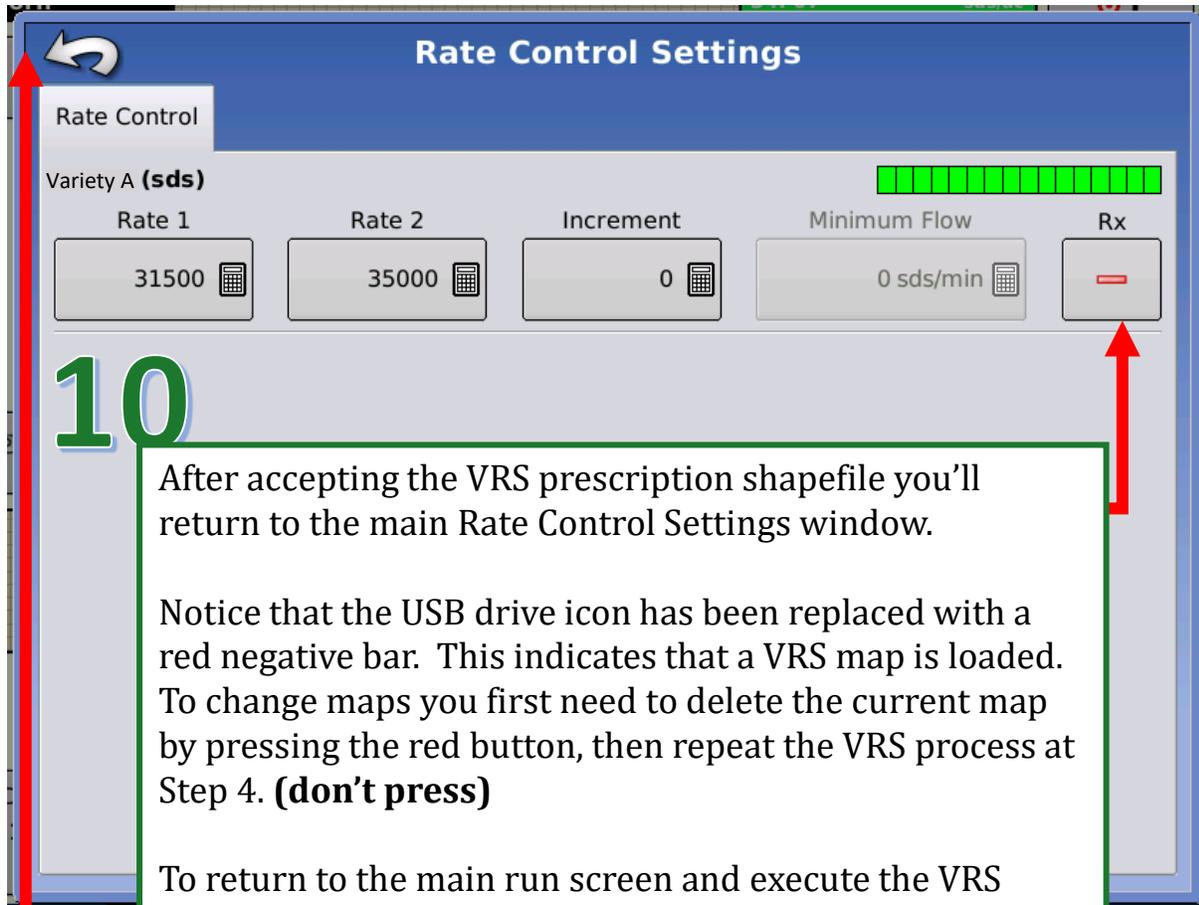
Do not proceed until the column preview shows valid seeding values.

8 Change value to match seeding rate attribute.



Confirm seeding rate values in the preview window, then press the green check box.

9



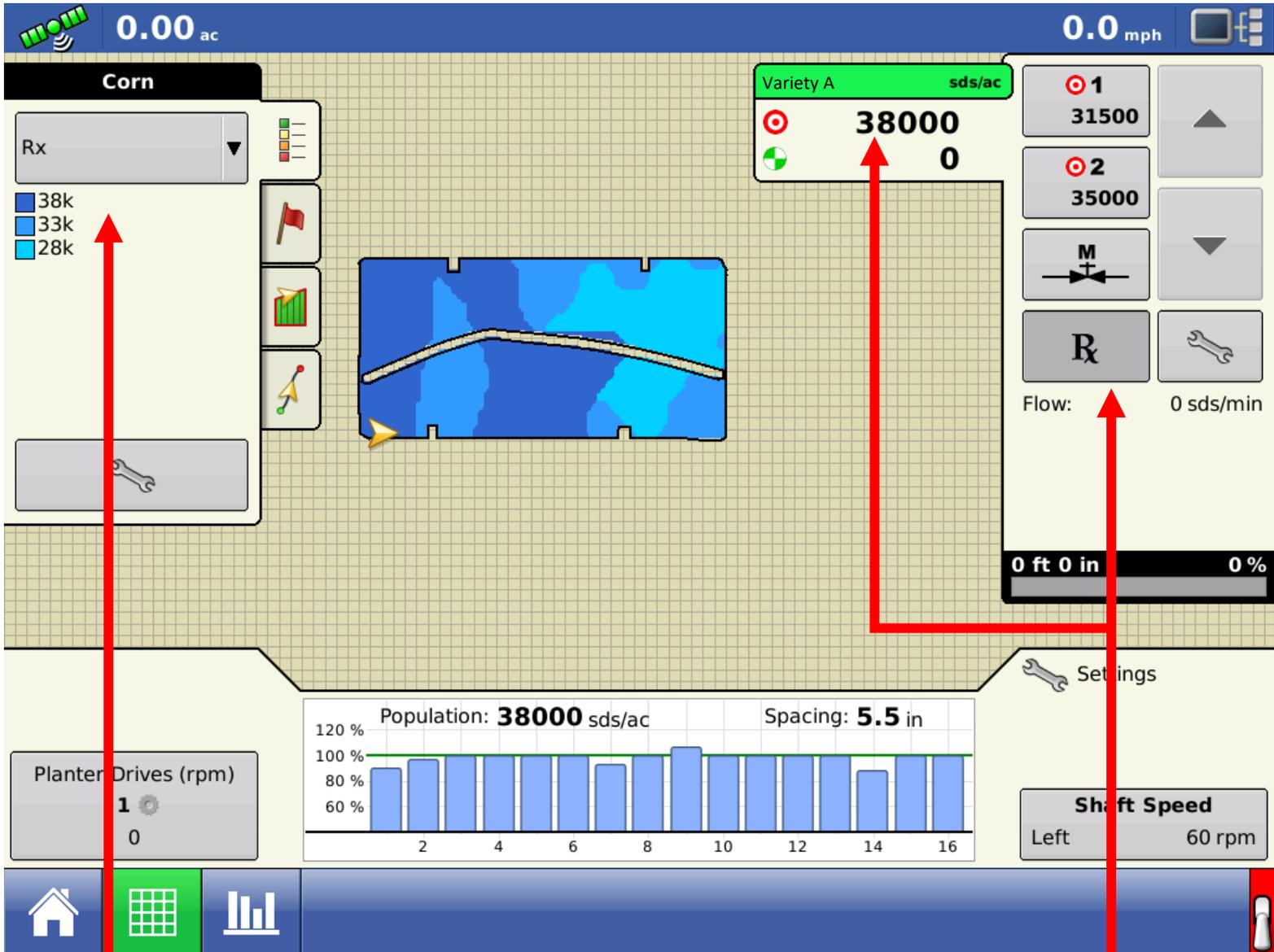
10

After accepting the VRS prescription shapefile you'll return to the main Rate Control Settings window.

Notice that the USB drive icon has been replaced with a red negative bar. This indicates that a VRS map is loaded. To change maps you first need to delete the current map by pressing the red button, then repeat the VRS process at Step 4. **(don't press)**

To return to the main run screen and execute the VRS prescription map simply press the back arrow return button at the to left of the active window.

Importing and Planting with VRS Prescription Files Ag Leader Integra



Confirm that the VRS map was properly loaded by reviewing the following check list:

1. Make sure the Rx seeding rate is selected and the Target rate matches the current VRS zone.
2. Review the Rx rates on the reference map and confirm they match the seeding plan.

Cleaning up Prescriptions



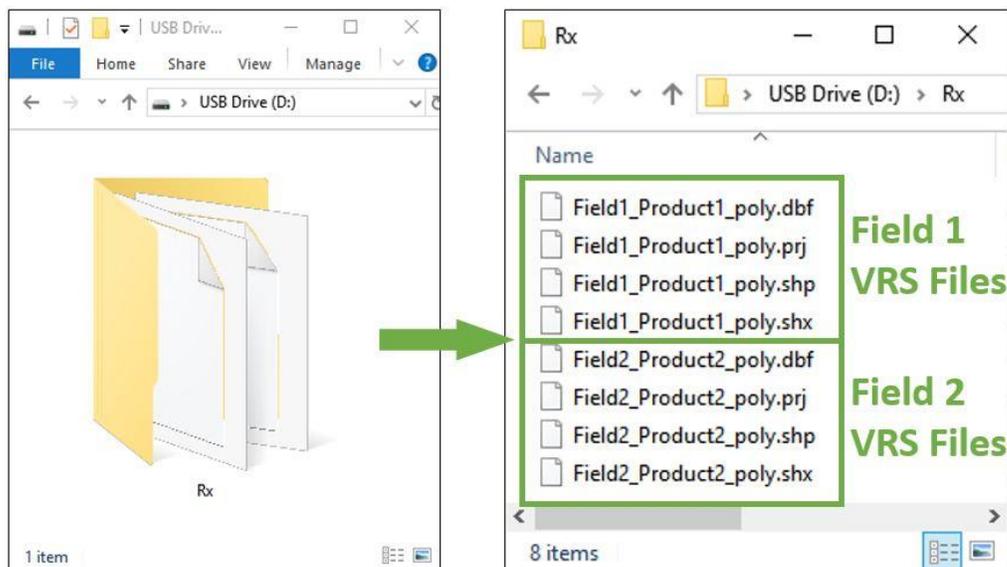
Cleaning up Prescriptions Ag Leader Integra

1

To clean up the Prescription files, the USB Drive will need to be connected to a computer. **Note: Prescription files cannot be saved directly to the monitor when using a USB drive with the following file types: AgSetup, Shapefiles or *.irx.**

2

When in the Rx Folder, **delete** the previous shapefiles from the past year. The folder can be left on the USB for later use.



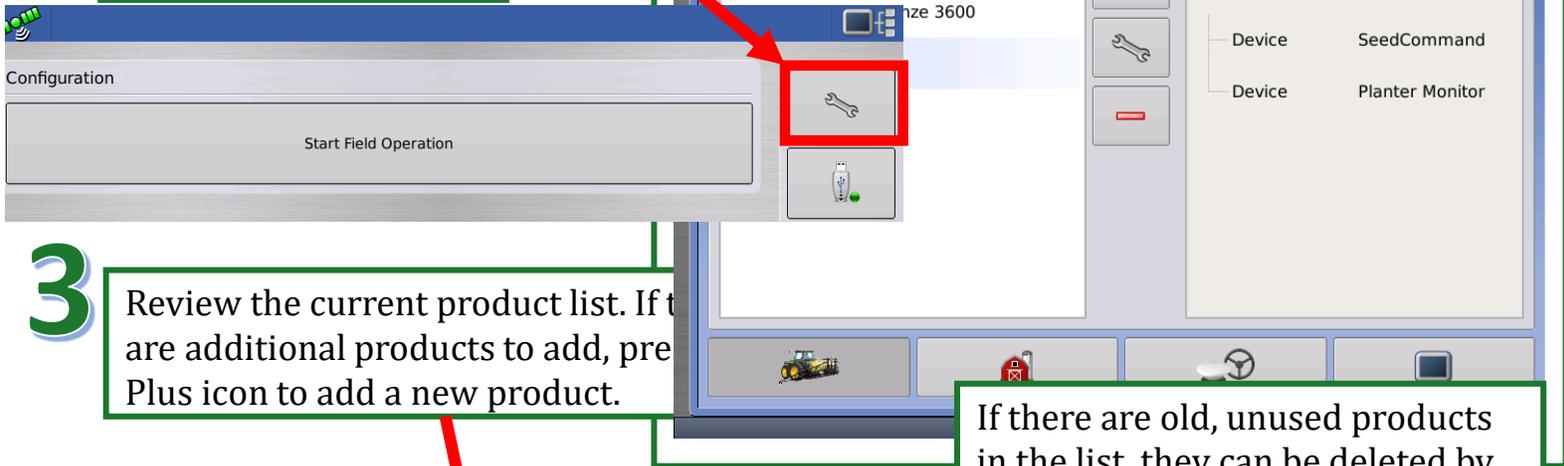
Creating Varieties For Planting



Creating Varieties For Planting Ag Leader Integra

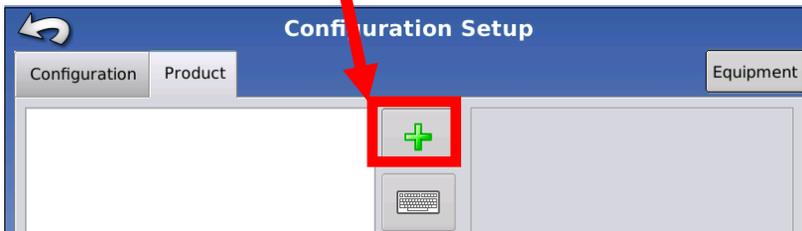
1 Before starting the Planter Operation press the wrench icon to enter in all the different varieties that are going to be planted this year.

2 To add different varieties press the Product tab on the Configuration Setup page.



The screenshot shows the 'Configuration Setup' interface. The 'Product' tab is selected and highlighted with a red box. Below the tabs, there is a 'Planting' section with a list of products: 'John Deere 8360R, John Deere 1760' and 'John Deere 3600'. A red box highlights the wrench icon in the bottom right corner of the main content area. A red arrow points from the wrench icon in the first step's text to this icon.

3 Review the current product list. If there are additional products to add, press the Plus icon to add a new product.



The screenshot shows the 'Configuration Setup' interface with the 'Product' tab selected. A red box highlights the green Plus icon in the bottom right corner of the main content area. A red arrow points from the Plus icon in the third step's text to this icon.

If there are old, unused products in the list, they can be deleted by highlighting the product and pressing the red Minus icon. **Be Cautious as this will delete all logging data associated with the deleted product!**

4 Press the Seed Variety icon on the Add Product page. This creates a seed product to be planted.

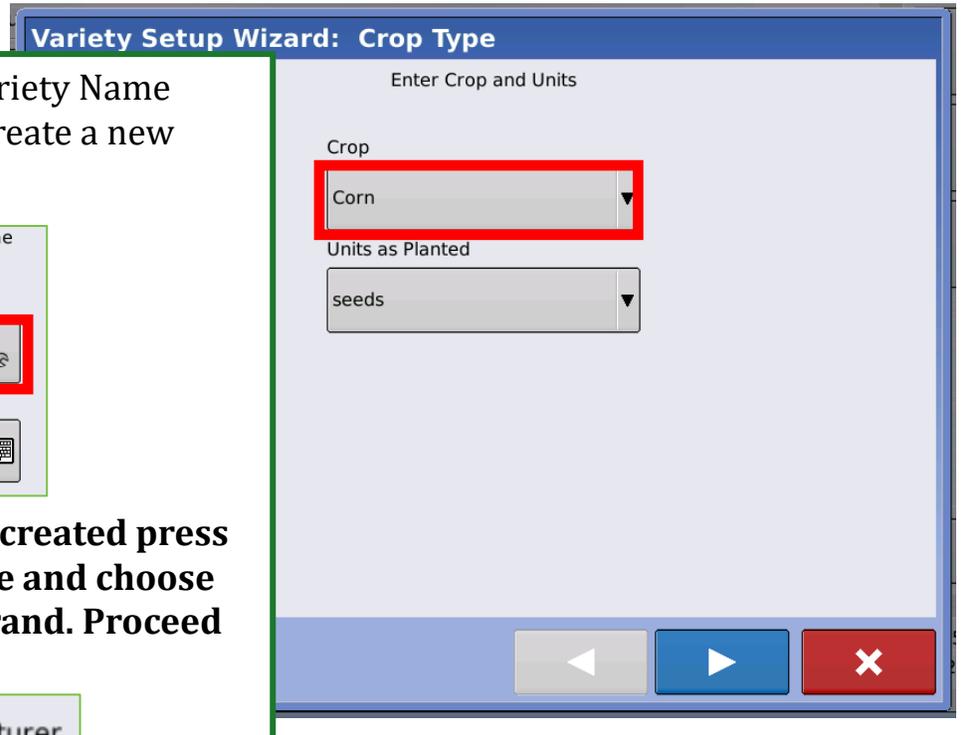


The screenshot shows the 'Add Product' page with four options: 'Seed Variety', 'Application Product', 'Mix/Blend', and 'Harvest Product'. The 'Seed Variety' option is highlighted with a red box. The descriptions for each option are: 'Seed Variety: Create a seed product to be planted.', 'Application Product: Create a single product to be added to a tank mix or to be applied by itself.', 'Mix/Blend: Create a Tank Mix or Dry Blend of two or more products.', and 'Harvest Product: Create a new harvest product.'

Creating Varieties For Planting Ag Leader Integra

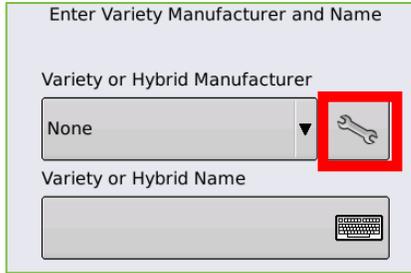
5

To change the Crop press the box under the text. Example: the Crop is Corn. Press the right arrow to continue.

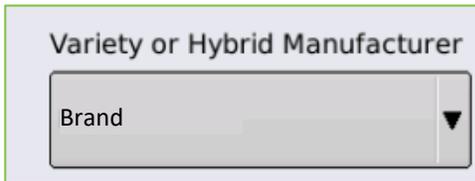


6

On the Variety Setup Wizard: Variety Name page press the Wrench icon to create a new Variety or Hybrid Brand.



If all manufactures have been created press the down arrow that says None and choose the correct Brand, example Brand. Proceed to step 9.



7

On the Edit List screen press the plus icon to add a new Brand.

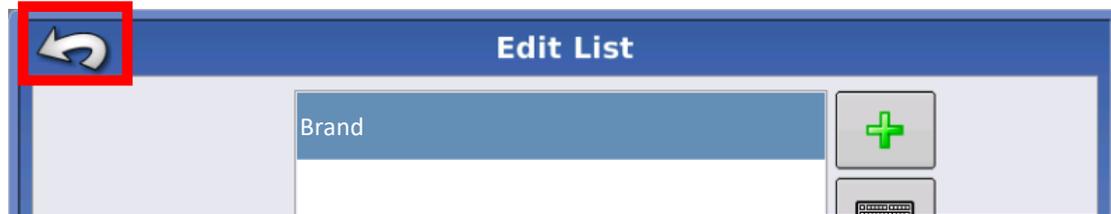
A pop up window will appear to Add Item. Use the key board to enter in the Brand name, example Brand. Press the check mark when the correct name is entered.



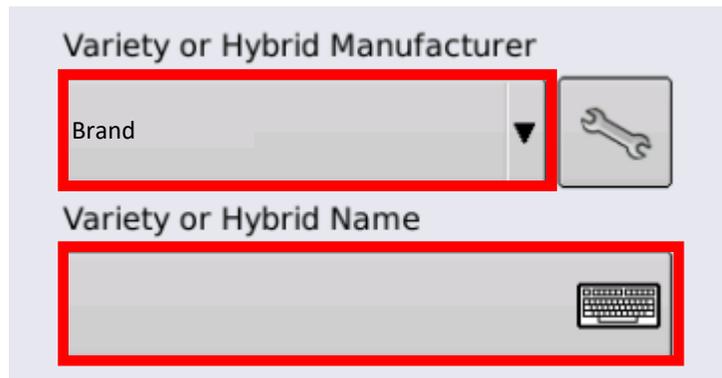
Creating Varieties For Planting Ag Leader Integra

8

Press the back arrow after the Edit List page has all of the manufactures that are being used have been entered.

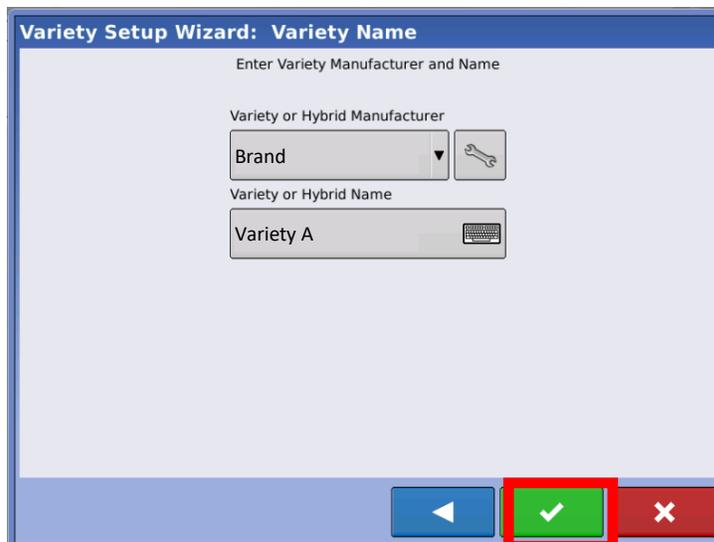


When the manufactures are entered, press the drop down arrow to select the correct Brand, Example: Brand. to enter in the Variety or Hybrid Name press the keyboard icon. Use the keyboard to enter in the Variety or Hybrid Name.



10

Press the check mark once the Brand and Variety name has been entered. To create more Varieties repeat steps 3 to 5 to get to the Variety Setup Wizard. Then select the correct Brand and enter in the variety name.



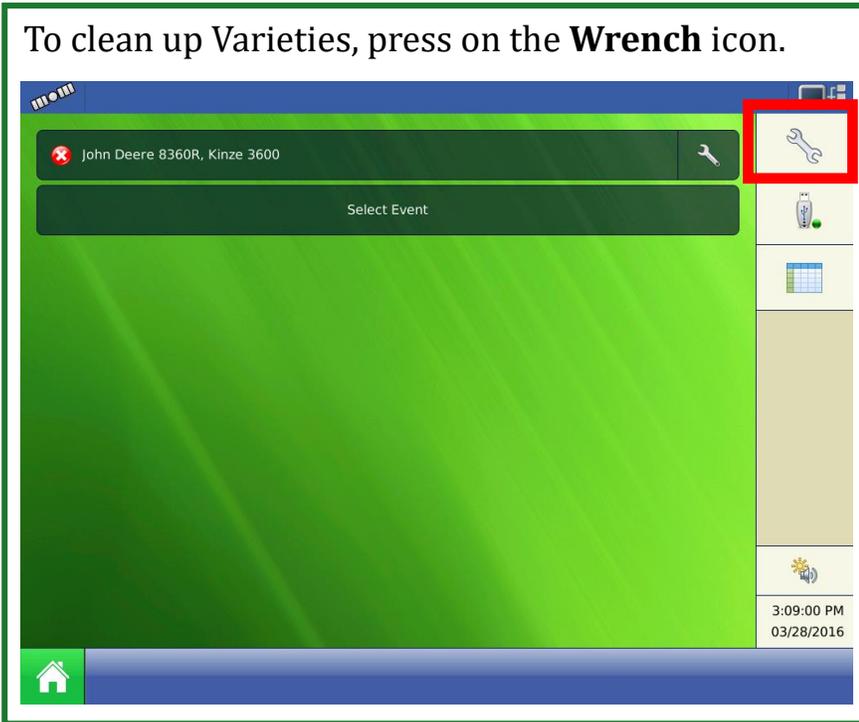
Cleaning up Varieties



Cleaning up Varieties Ag Leader Integra

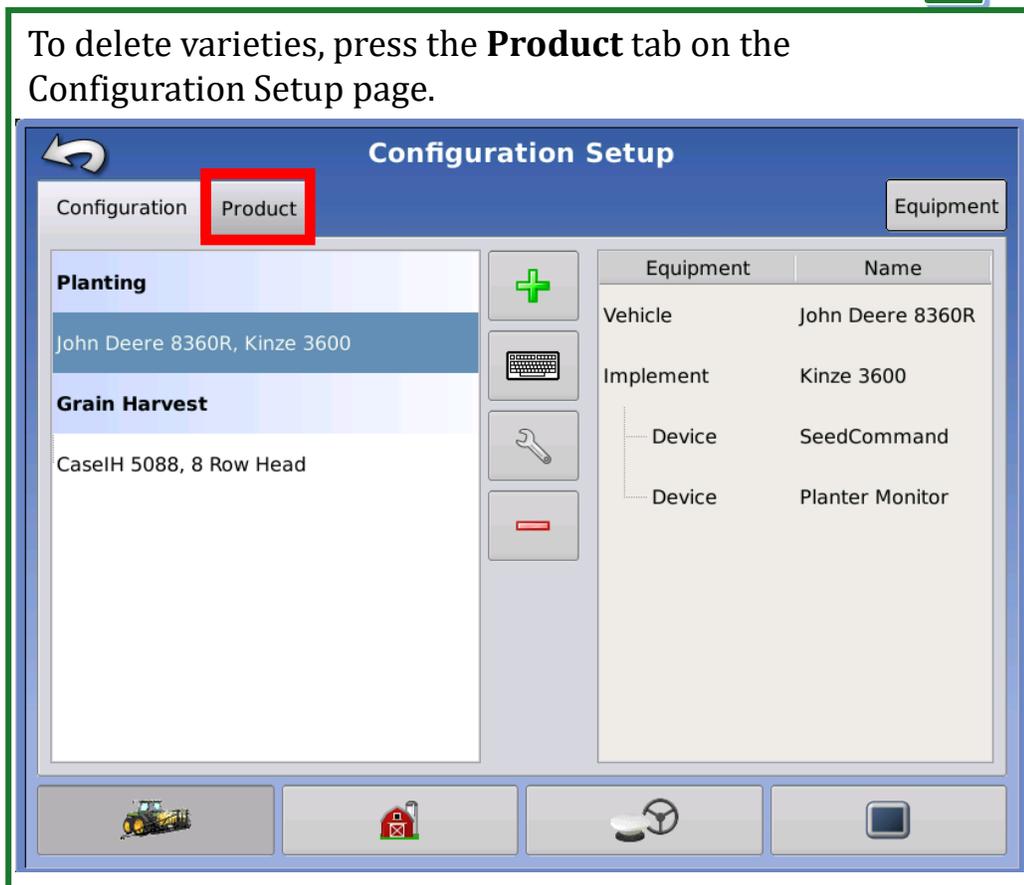
1

To clean up Varieties, press on the **Wrench** icon.

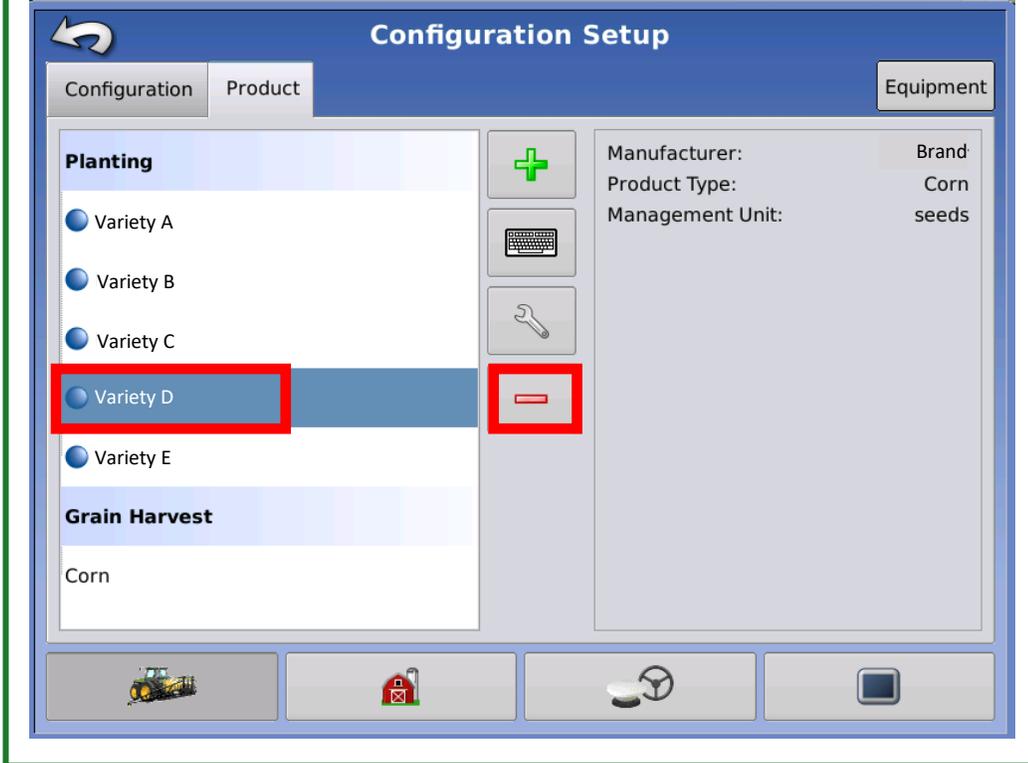


2

To delete varieties, press the **Product** tab on the Configuration Setup page.



- 3** Select a Variety by pressing on one in the product list. Once highlighted, press on the **Red Minus**. **Be Cautious as this will delete all logging data associated with the deleted product**



- 4** **Be Cautious as this will delete all logging data associated with the deleted product!** Press the **Checkmark** to approve the removal of the product.



Changing Varieties Within A Field



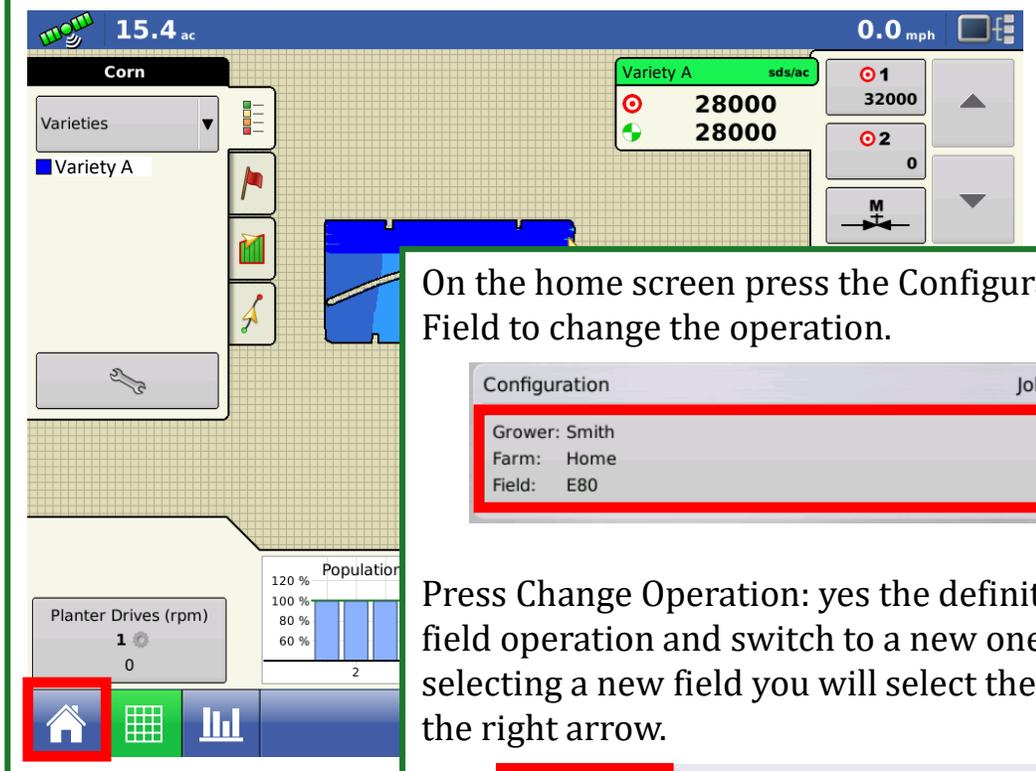
Firmware 4.5

Changing Varieties Within A Field Ag Leader Integra

When Changing Varieties in the field the VRS map will be lost and will need to be imported again. Make sure to have the USB with the variable rate data for the field.

1

From the home planting screen press the home button on the bottom left hand of the screen.

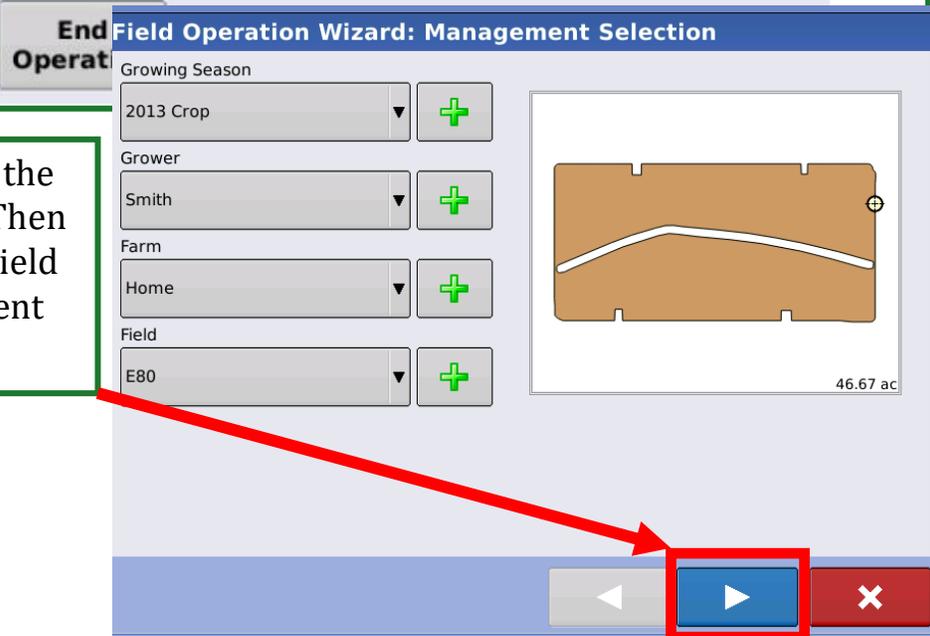


2

On the home screen press the Configuration Grower Farm Field to change the operation.



Press Change Operation: yes the definition says to end current field operation and switch to a new one, but instead of selecting a new field you will select the current field and press the right arrow.



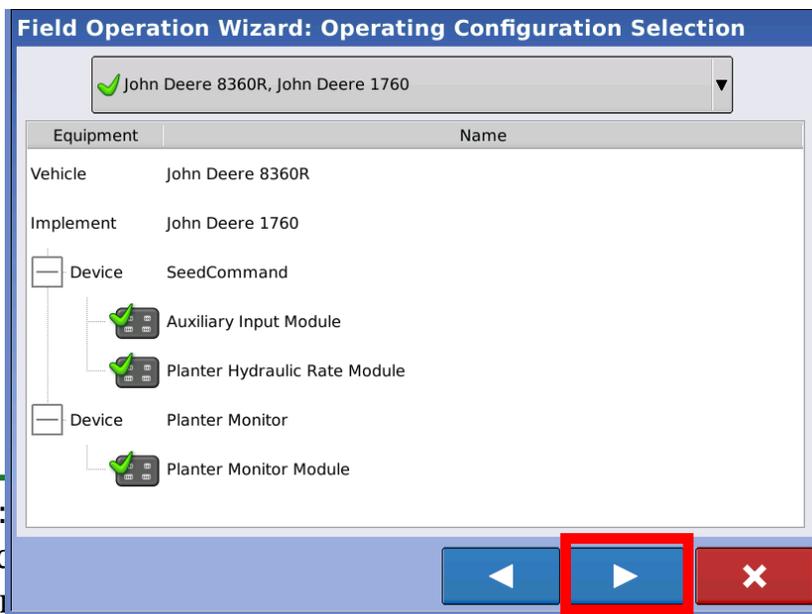
3

First check to make sure that the grower farm field is correct. Then press the right arrow in the Field Operation Wizard: Management Selection screen.

Changing Varieties Within A Field Ag Leader Integra

4 Press the right arrow in the Field Operation Wizard: Operating Configuration Selection screen.

Note: If there is a red X by the modules please contact the Equipment provider.

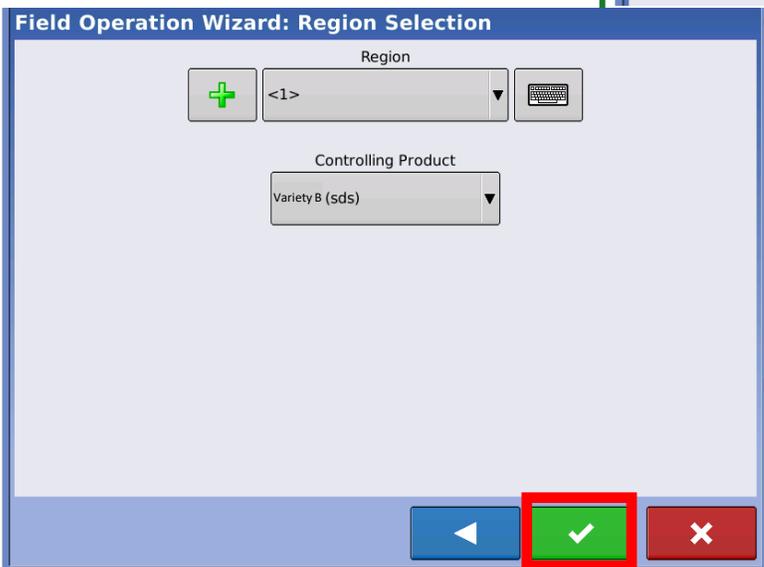


5 On the Field Operation Wizard: Product Selection page press the down arrow to change variety. Example switching from A to B. Press right arrow to continue.



Note: adding to the correct instance also allows the operators AutoSwath to continue to function properly. Selecting a "New instance will create a new map, thus AutoSwath will not function on previously planted areas.

On the Field Operation Wizard: Instance Selection press Add to the latest Instance. This will allow the new variety to be added to the current planting map. Press the right arrow to continue. **Note: the Last instance will always be the first one to choose in the list.**



7 Press the check mark to continue to return to the planting operation. **Note: Please Refer to Planting with VRS Prescription Files for Ag Leader Integra to reload the variable rate map.**

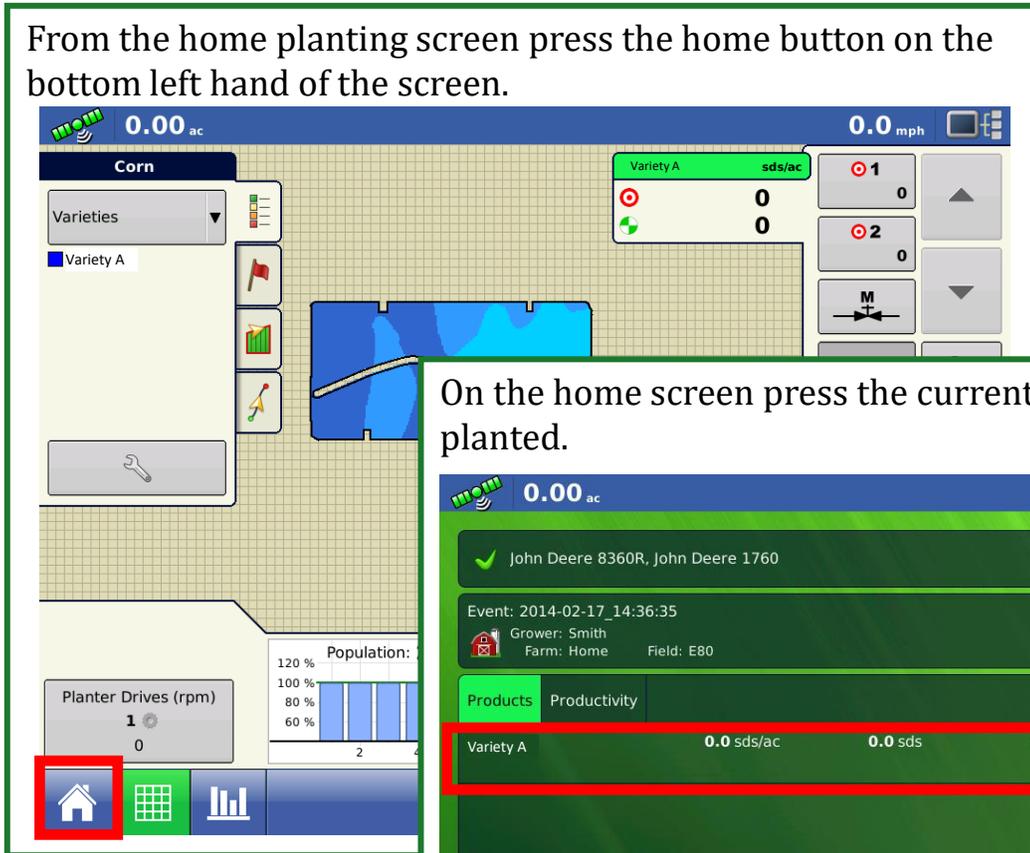
Changing Varieties Within A Field



Firmware 5.2

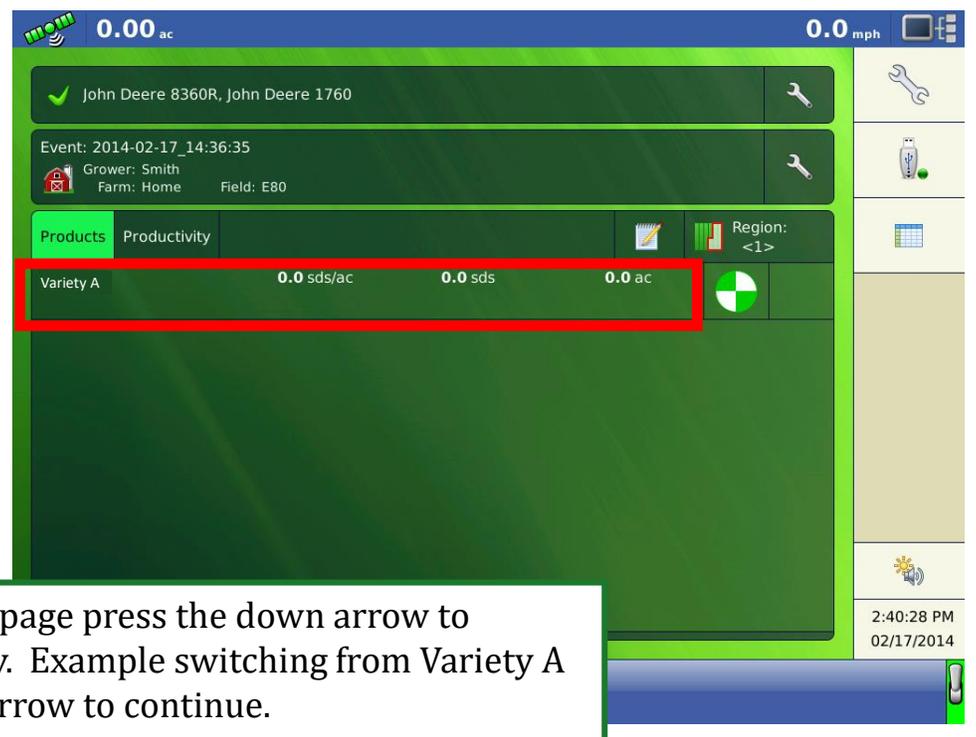
1

From the home planting screen press the home button on the bottom left hand of the screen.



2

On the home screen press the current product that is being planted.



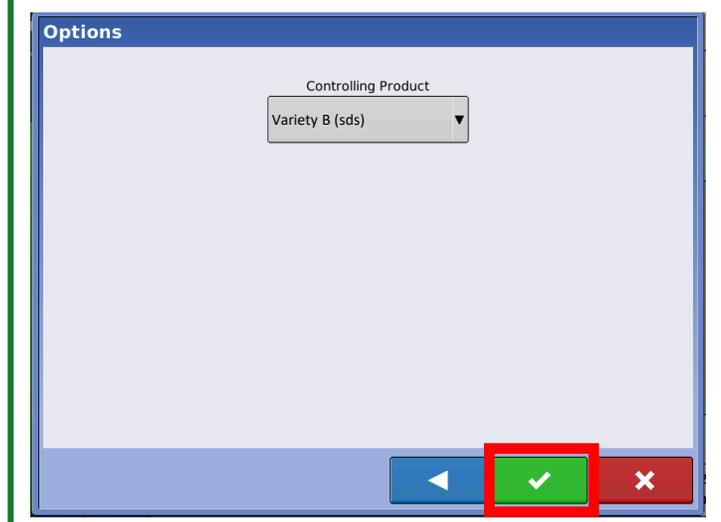
3

On the Product Selection page press the down arrow to change to the next variety. Example switching from Variety A to Variety B. Press right arrow to continue.



4

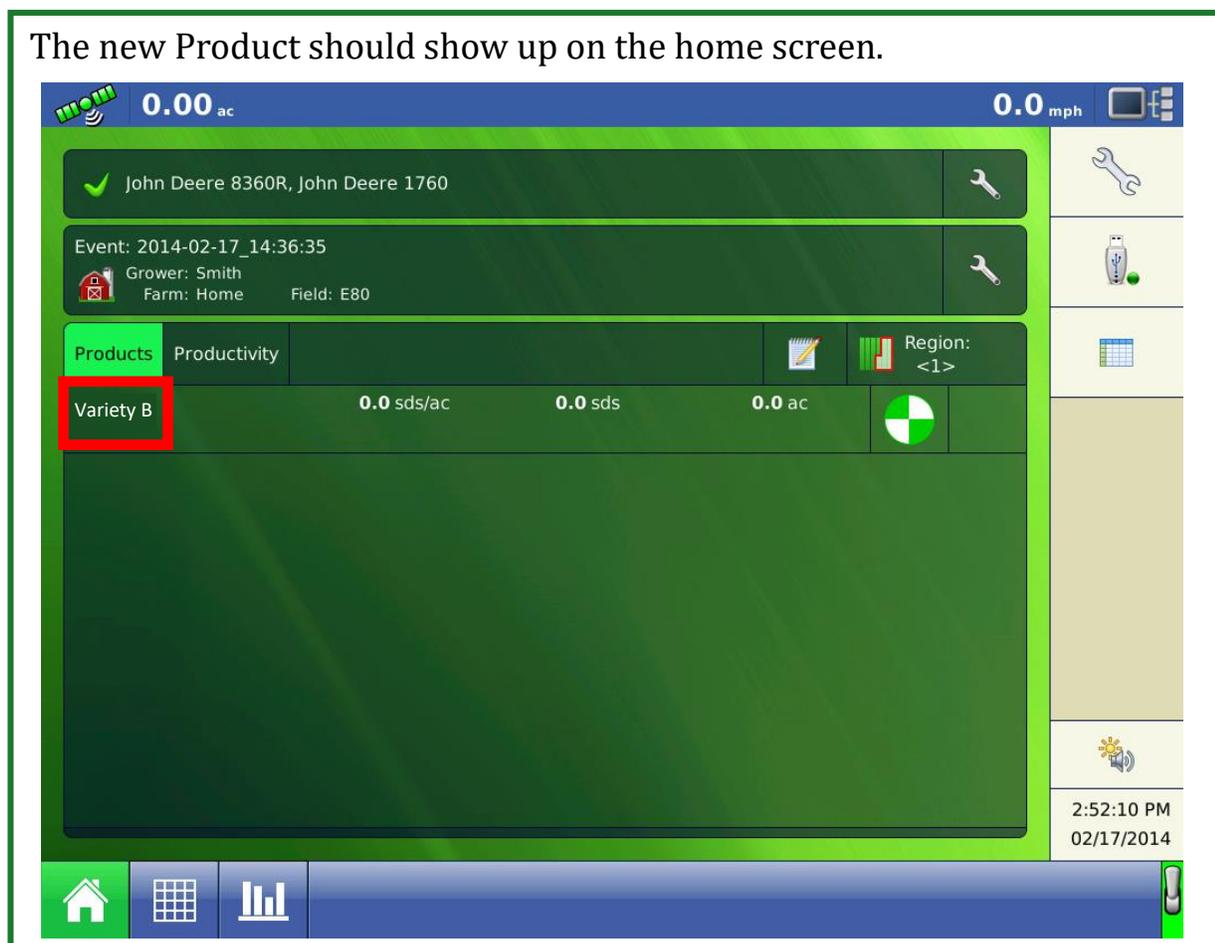
On the Options page Press the green check mark to continue.



Note: When Changing Varieties in the field the VRS map will stay there with Firmware 5.2

5

The new Product should show up on the home screen.



Setting Up Split Planter Treatment Data



Setting Up Split Planter Treatment Data Ag Leader Integra

1

Insert the USB drive containing the Rx folder and shapefiles into the Integra display.



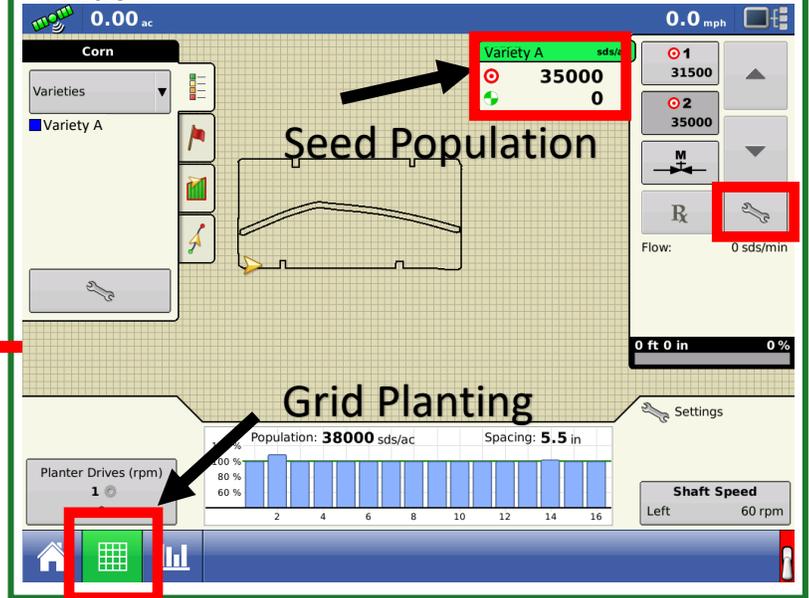
3

Press the wrench button on the right hand side. If the wrench is not available you may need to click the seed population button to make this visible.



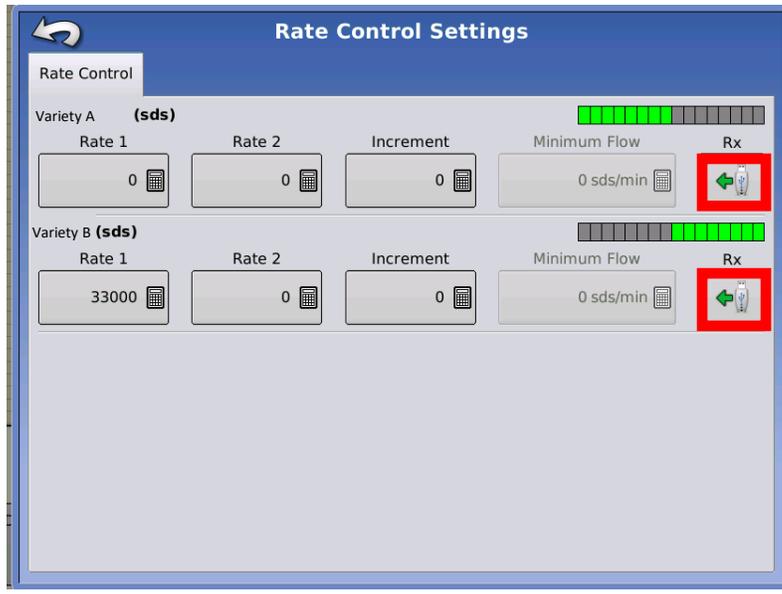
2

Start from the grid planting screen of the Integra. If the grid planting screen is not available please consult the equipment Brand. Press the Seed Populations tab to expand the window



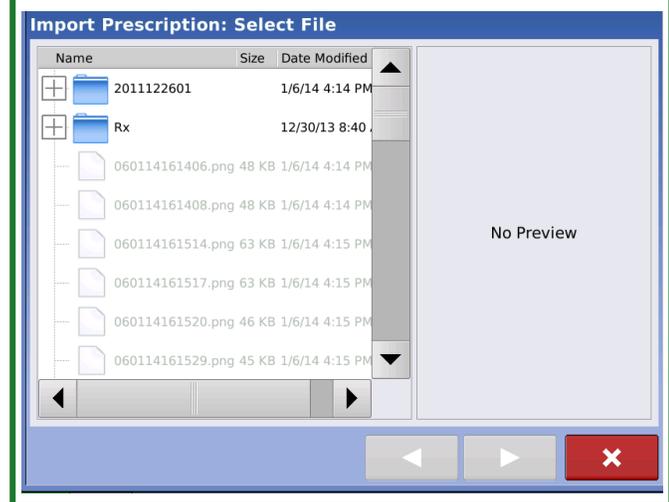
4

On the Rate Control Screen press the USB drive icon under the Rx label. If the icon is not shown or active the USB drive is likely not installed in the display correctly. This will need to be done twice for both sections. **Note if the Sections don't show up on the screen this will need to be setup in the Seed Command window, please contact the equipment Brand for support.**



5

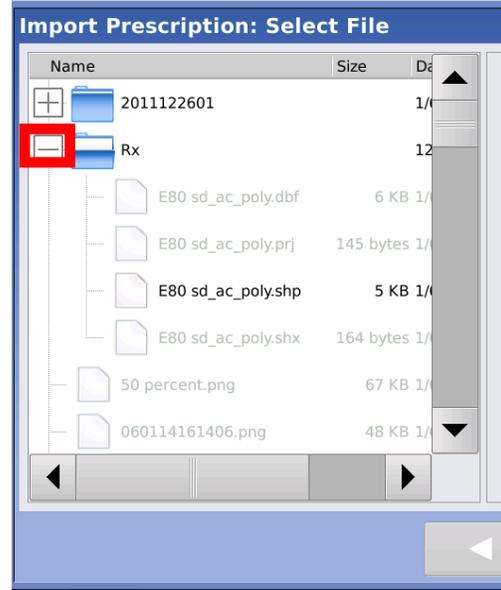
The Import Prescription Select File screen will show a folder map similar to a PC. You will use the touch screen to navigate to the prescription file for the desired field.



Setting Up Split Planter Treatment Data Ag Leader Integra

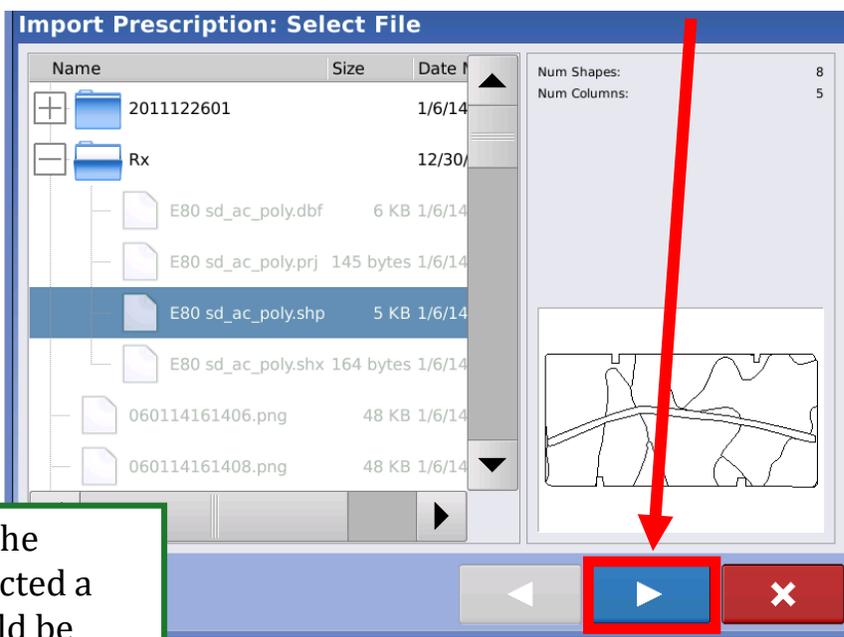
Press the + sign next to the Rx folder to see the files inside the folder.

6



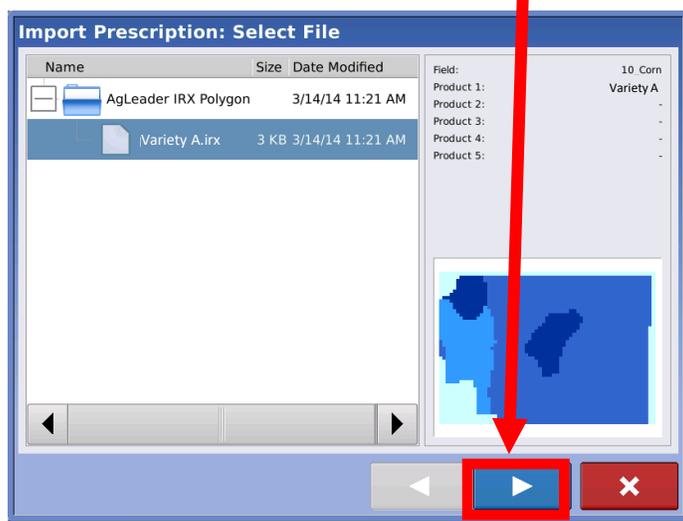
Press to highlight the **shapefile** for the desired field. When the file is selected a boundary map of the field should be visible in the lower right hand corner which shows the unique VRS prescription zones. Once selected press the Blue arrow.

7

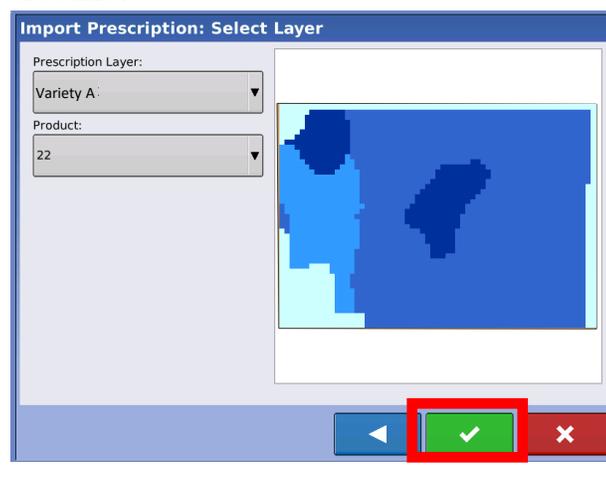


7b

Press to highlight the **.irx** file for the desired field. When the file is selected a prescription map of the field should be visible in the lower right hand corner which shows the unique VRS prescription. Once selected press the blue arrow. Steps 8 and 9 (selecting column and preview window) can be skipped when using a **.irx** file.



Once the Prescription layer and product have been selected press the green check mark. Refer to step 10 (rate control settings) for more details.



In the Import Prescription window make sure the Column is set to the variety for the current field. This is typically not the default.

Other tags for this are Tgt_Rate, Target_Rate, or Seeding_Rate among others.

When the correct Column is selected you will see a series of values in the Column Preview window that will be very close to the seeding rates prescribed for the field.

Do not proceed until the column preview shows valid seeding values.

8 Change value to match seeding rate attribute.

9 Confirm seeding rate values in the preview window, then press the Green check box.

10

Repeat Steps 4 to 8 (loading VRS) for the Next Sections. This will setup the VRS for all the sections on the planter. Note if you don't do this one side of the planter will not plant at the VRS rate and if you don't enter in any target rate the section won't plant at all.

Setting Up Split Planter Treatment Data Ag Leader Integra



Rate Control Settings

Rate Control

Variety A (sds)

Rate 1 0

Rate 2 0

Increment 0

Minimum Flow 0 sds/min

Rx -

Variety B (sds)

Rate 1 33000

Rate 2 0

Increment 0

Minimum Flow 0 sds/min

Rx -

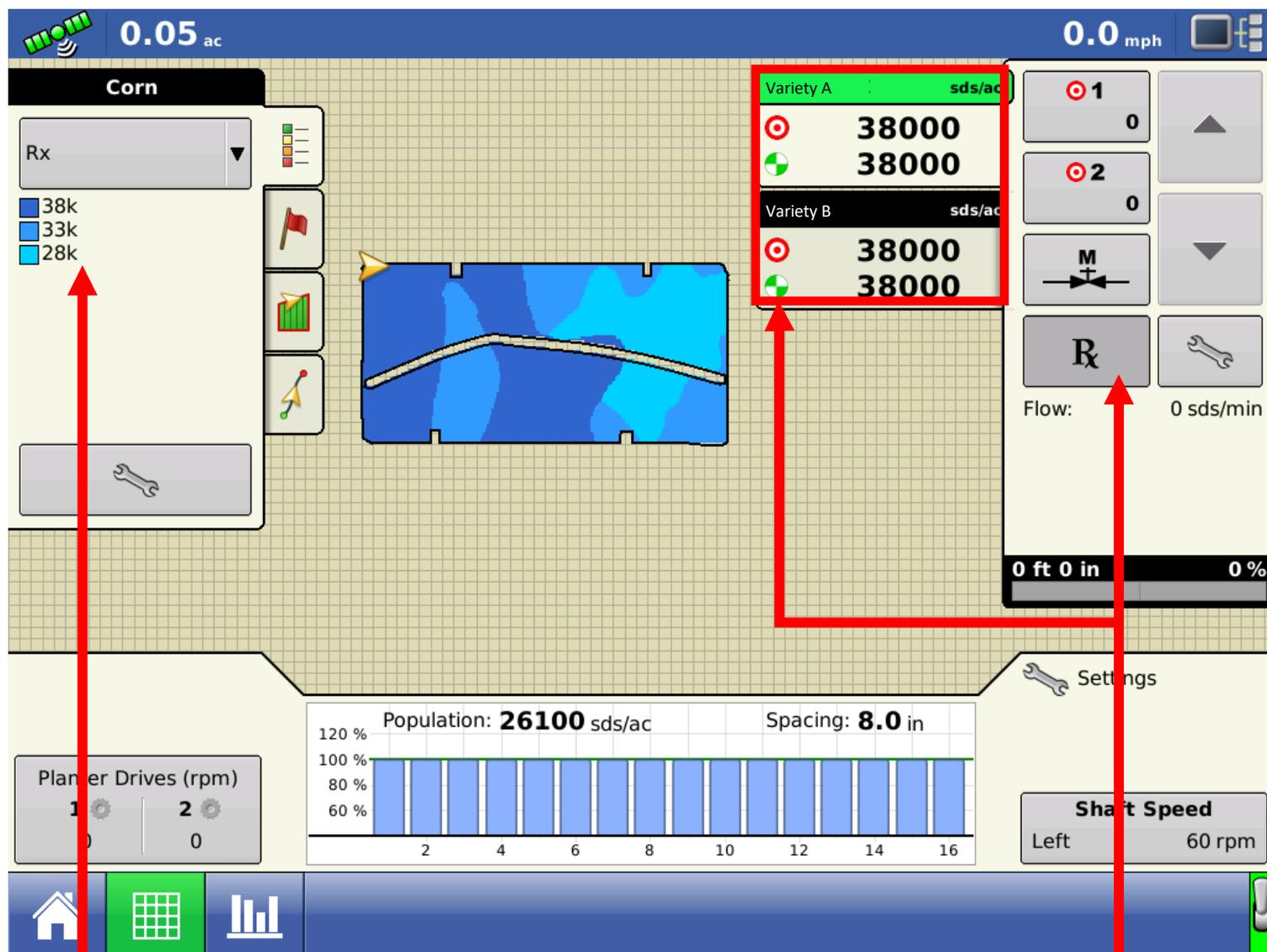
After accepting the VRS prescription shapefile you'll return to the main Rate Control Settings window.

Notice that the USB drive icons have been replaced with red negative bars. This indicates that a VRS maps are loaded. To change maps you first need to delete the current map by pressing the red button, then repeat the VRS process at Step 4. **(don't press)**

To return to the main run screen and execute the VRS prescription map simply press the back arrow return button at the to left of the active window.

11

Setting Up Split Planter Treatment Data Ag Leader Integra



Confirm that the VRS map was properly loaded by reviewing the following check list:

1. Make sure the Rx seeding rate is selected and the Target rate matches the current VRS zone.
2. Review the Rx rates on the reference map and confirm they match the seeding plan.

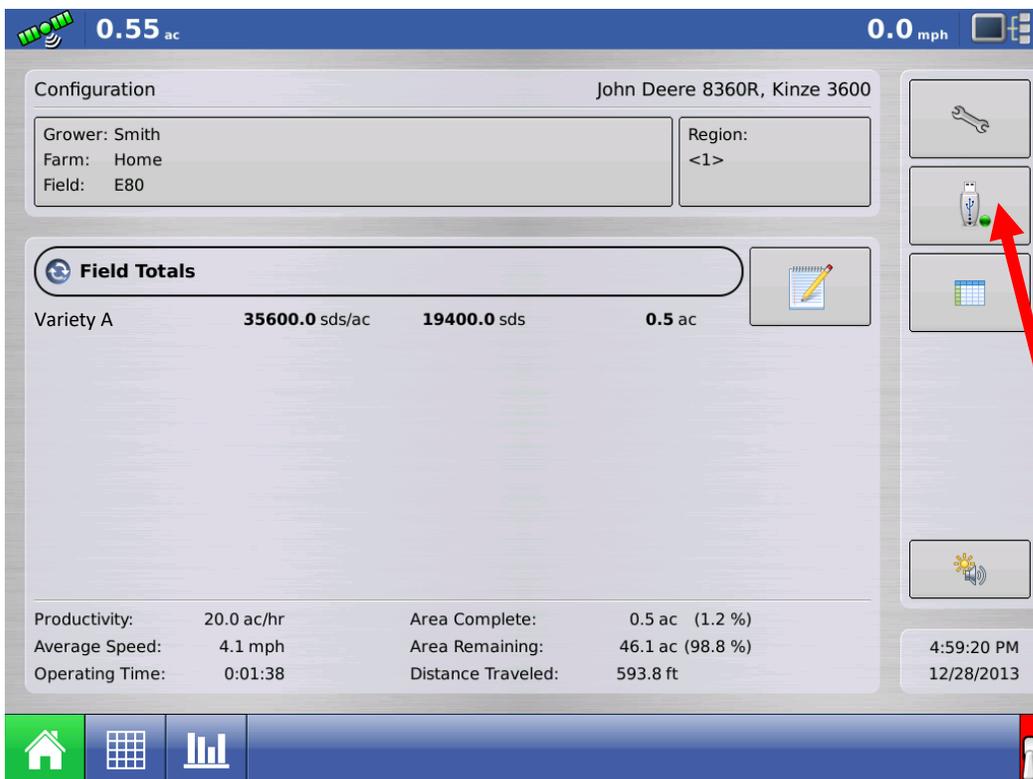
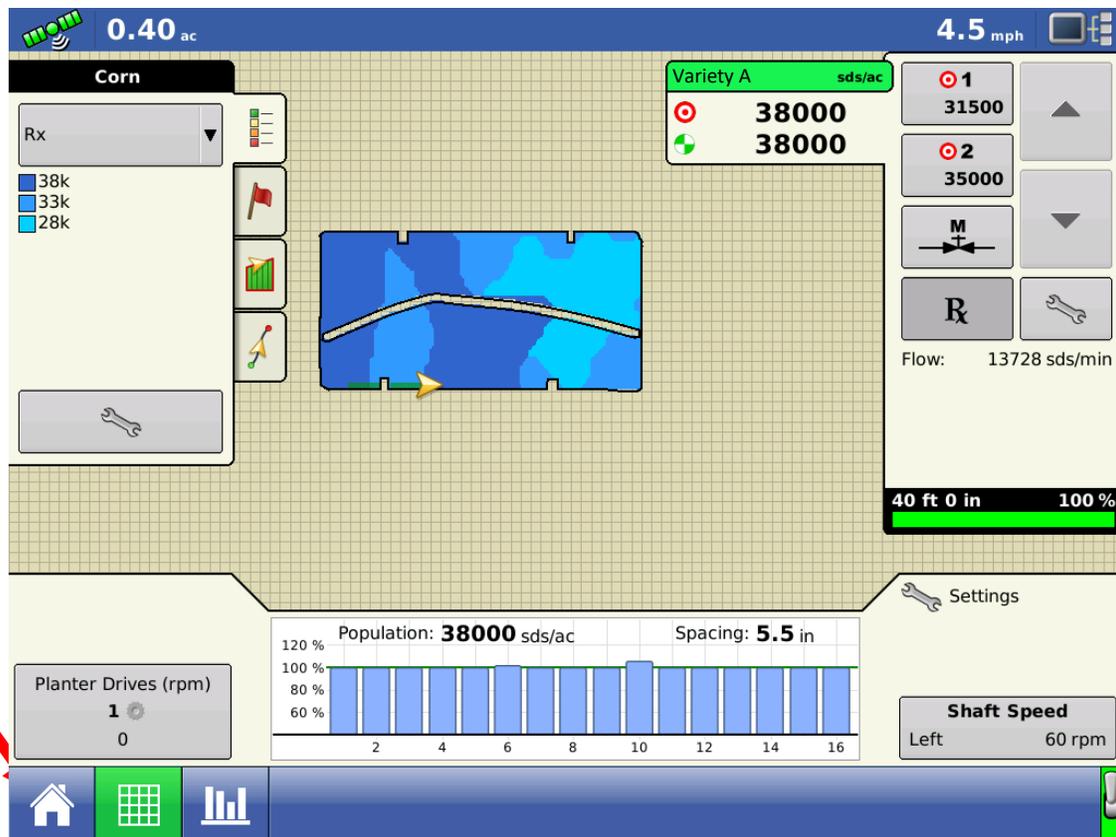
Exporting As-Applied Planting Files



Exported As-Applied Planting Files Ag Leader Integra

From the main planter screen press the Home button to return to the main Integra configuration screen.

1



Insert a USB drive into the Integra monitor. You should see a green light next to the USB icon. If a green light is not shown the USB drive is not recognized.

Press the USB icon once a green light is visible.

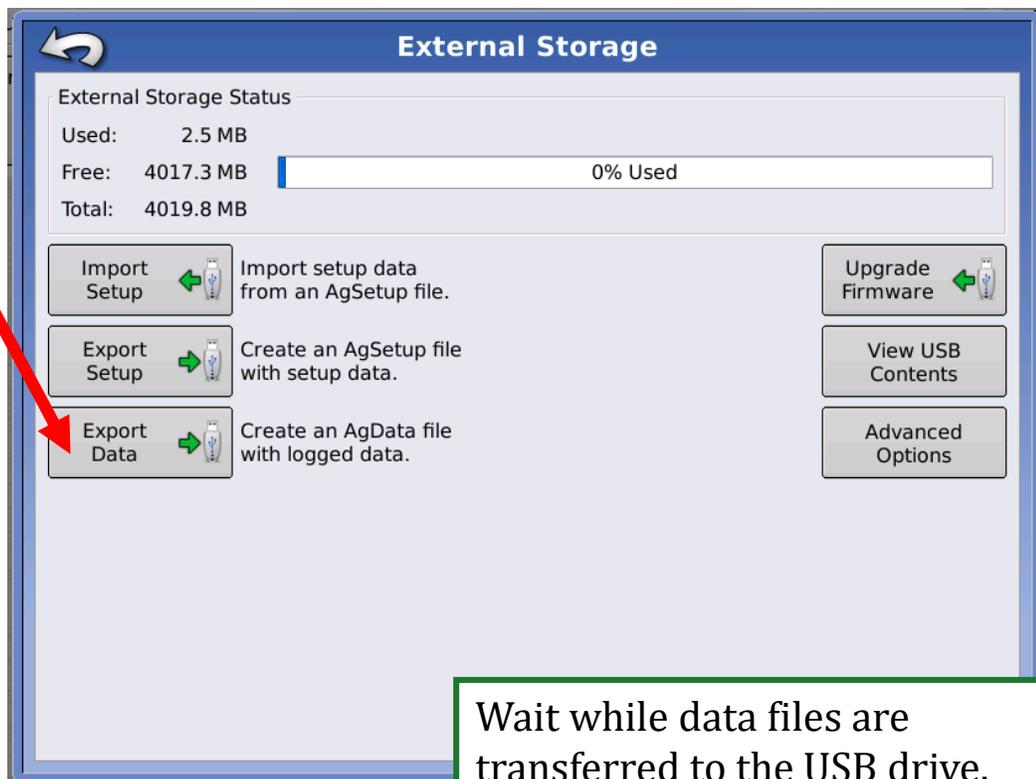
2

Press the Export Data button to transfer as-applied files on the monitor to USB drive.

After files are exported they will no longer reside on the display.

Make sure to provide the grower a backup copy of the exported files for their own records

3



Wait while data files are transferred to the USB drive.

Once the transfer is complete press the green accept arrow. You can now remove the jump drive.

Data files will be stored on the USB drive in a folder which is the serial number of the Integra display. This will be unique to the customer, but it is good practice to rename the folder with the customer's name to ensure data integrity.

File Formats will vary by Display Firmware. Please see Trouble Shooting section.

Export Data

Please wait while the logs are being exported.

0%

Export Data



Successfully created file
"2013-12-28_16-59-27.agdata".



4

Troubleshooting

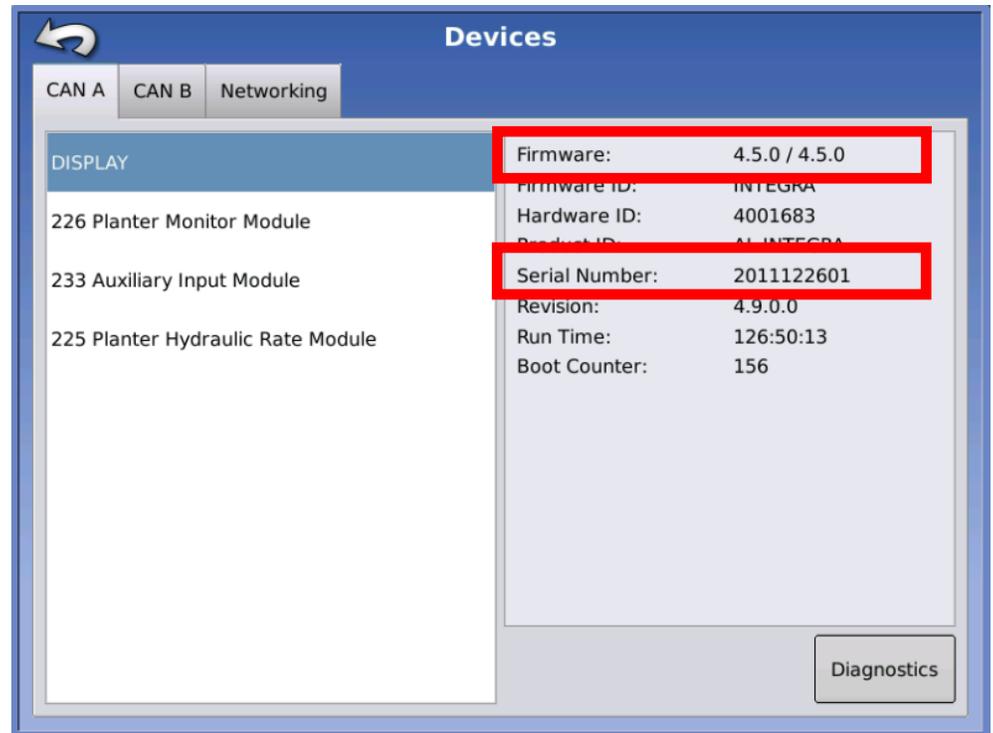


Troubleshooting Ag Leader Integra

Check the firmware version number of the display by pressing the terminal icon in the upper right hand corner of the display.



The Firmware along with the Serial number will be located on the Devices page.



Data Formats: Integra's Proir to V3 and all Insights, data will be in the **.ilf file** format, not **.agdata** format. **DO NOT** attempt to upgrade customers Integra! Disasters can occur!

Question: Does it matter what the seeding rate units are?

Answer: Yes, Shape files for the Integra and Insight displays require units of Seeds Per Acre. Prescription shapefiles with units of thousands of seeds per acre or kseeds per acre will not work correctly.

Split Planter setup not working: Display needs to be Unlocked for Multiple Products, Please contact the Equipment provider for more assistance.

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