



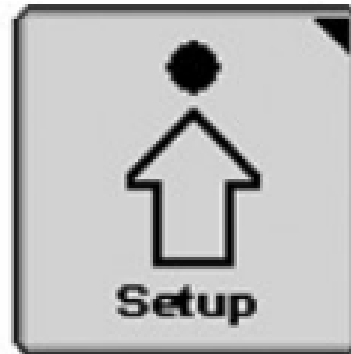
***Dual Product Setup
John Deere
Rate Controller 2000
Lynx Q2 Dry Box***



- *Open the Rate Controller 2000 Main page by selecting the Rate Controller 2000 Icon*



- *To begin setup select the Setup Softkey*



- *Under the Implement Tab (A), select Change/New (B)*

Implement ^(A) Settings ^(E) Alarms ^(F) Rates ^(G)

Profile Name **Liq fert**


Machine Type **Liquid Fert. Tool**

Change / New ^(B) Edit ^(C) Remove ^(D)

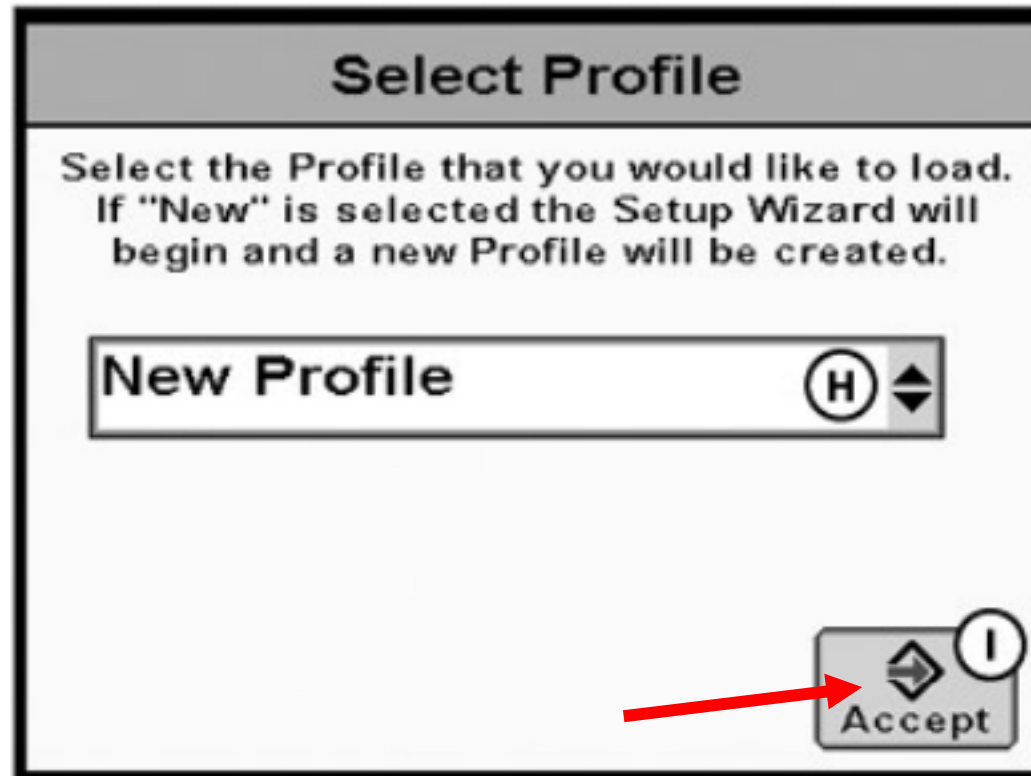
Application Width **16.000(m)**

Section Setup Summary

Height Switch

Test Speed 

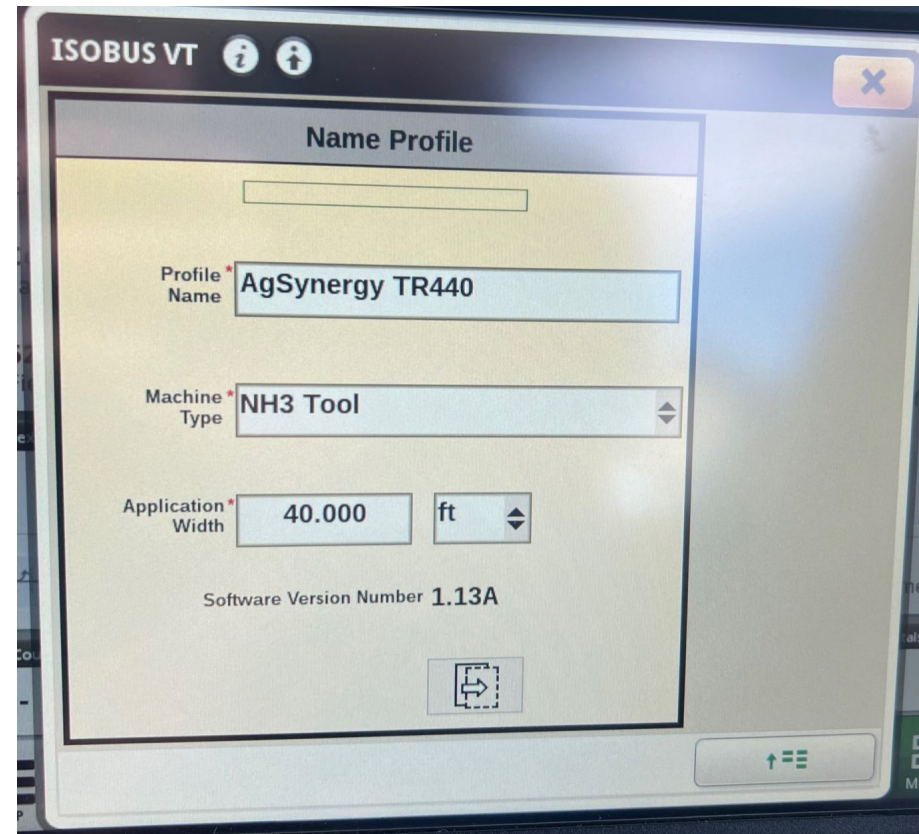
- *Select New Profile from the drop down menu (H), Then Press Accept (I)*



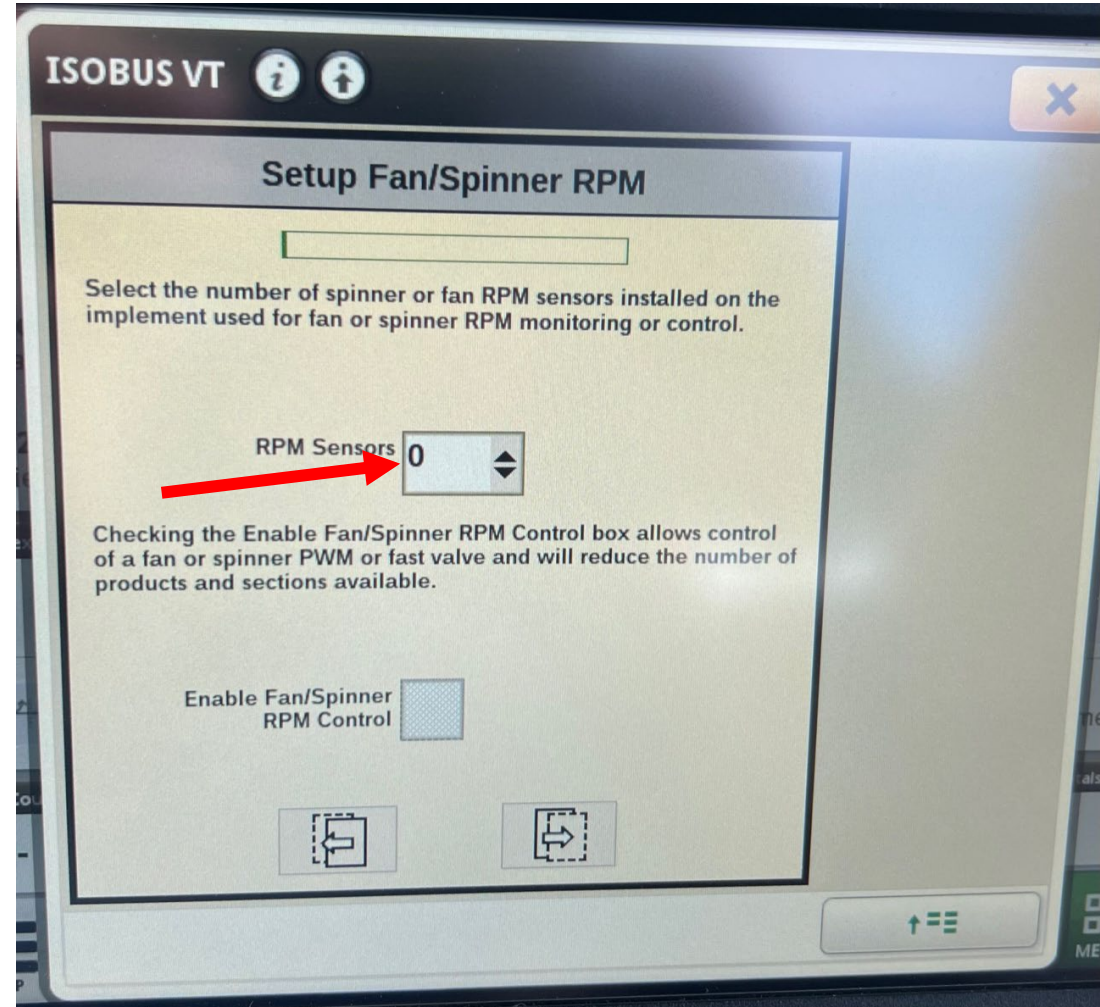
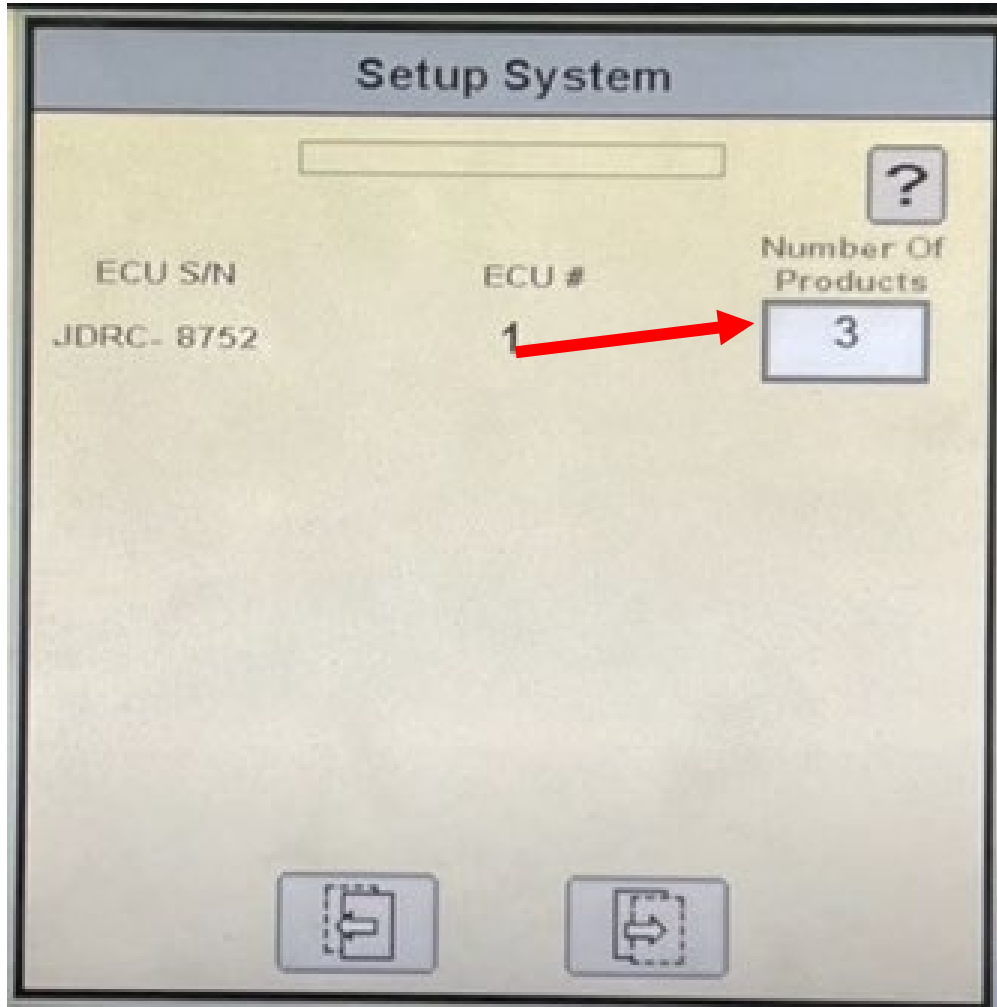
- **Create a Profile Name (A), Select NH3 Machine as Machine Type (B), enter Application Width (C), and press the next Icon (E)**

The diagram shows a 'Name Profile' form with the following fields and callouts:

- Profile Name:** A text input field with callout **(A)**.
- Machine Type:** A dropdown menu with callout **(B)**.
- Application Width:** A numeric input field containing '0.000' with callout **(C)**, and a unit dropdown menu containing '(ft)' with callout **(D)**.
- Software Version Number:** A text field containing '1.XXX'.
- Next Icon:** A square button with a right-pointing arrow inside a dashed box, with callout **(E)**. A red arrow points to this icon.



- Under Setup System enter 3 for the number of products
- Under Setup Fan Select “0” from the RPM Sensors dropdown



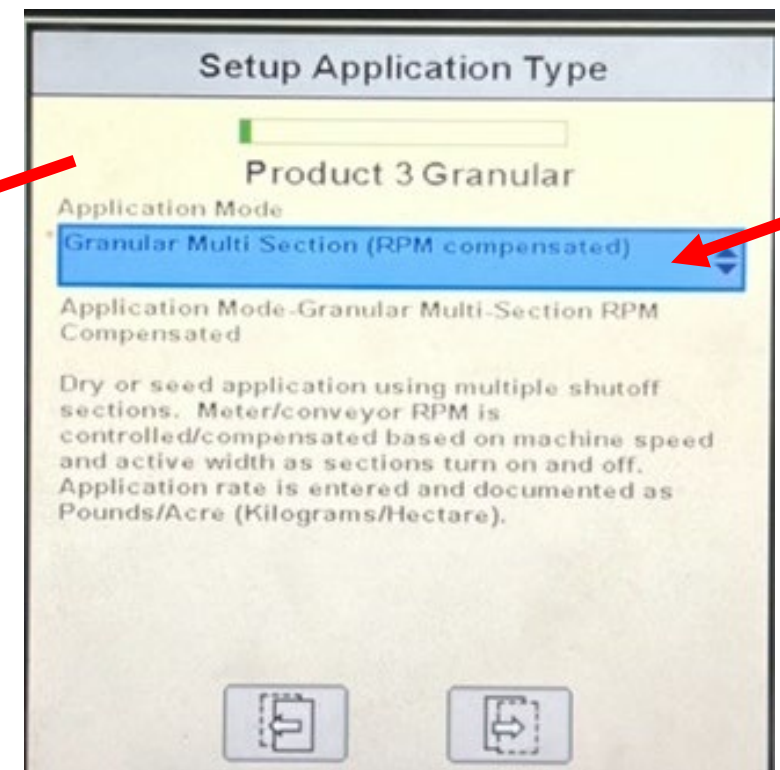
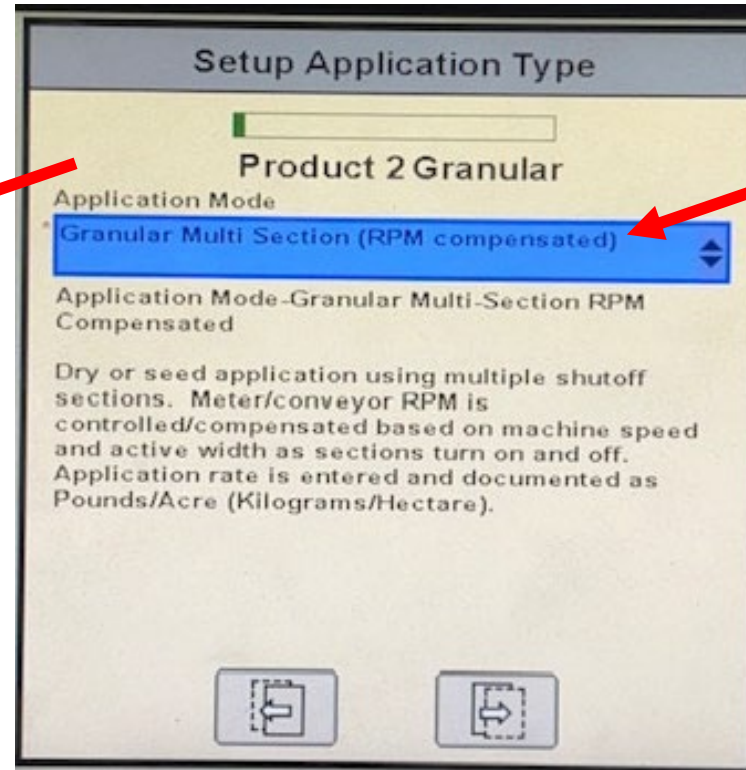
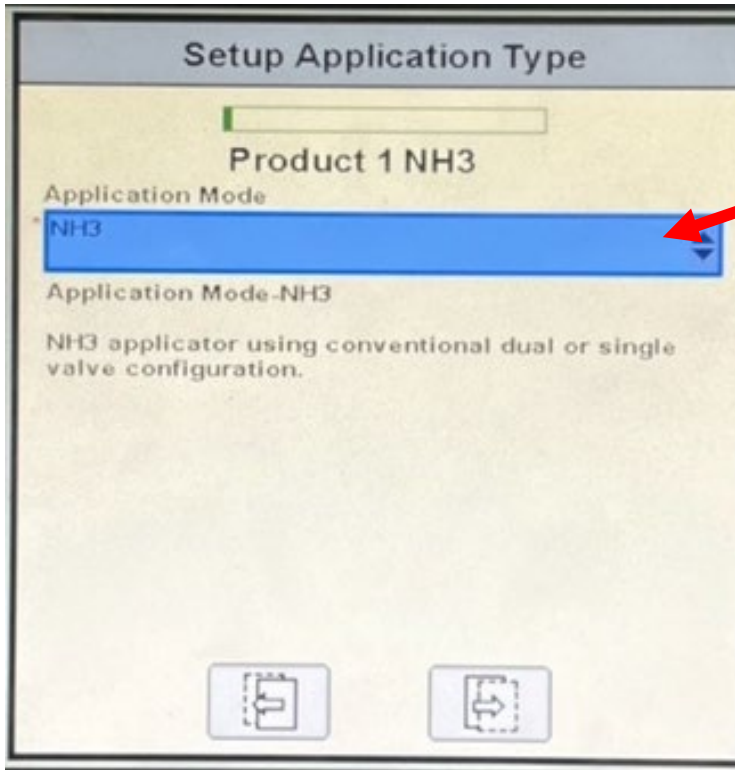
- *Under Setup Application Type select “NH3” for Product 1*
- *Select “Granular Fertilizer” for Products 2 and 3*

The screenshot shows a software interface titled "Setup Application Type". At the top, there is a progress bar and a help icon (a question mark in a square). Below this is a table with two columns: "Product" and "Application Type".

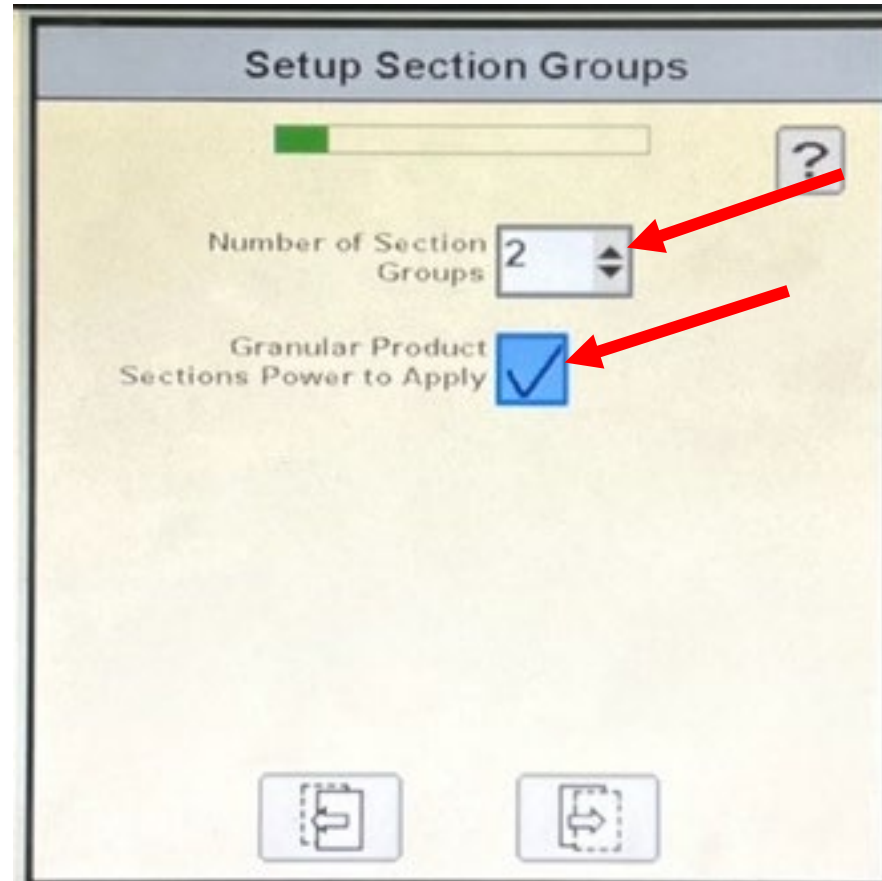
Product	Application Type
1	NH3
2	Granular Fertilizer
3	Granular Fertilizer

At the bottom of the screen, there are two navigation icons: a left-pointing arrow and a right-pointing arrow, both enclosed in dashed boxes.

- ***Under Setup Application Type select “NH3” for Product 1 Application Mode***
- ***Select “Granular Multi Section (RPM compensated)” for Products 2 and 3 Application Mode***



- ***Under Setup Section Groups select “2”***
- ***Check Granular Product Sections Power to Apply***



- ***Under Setup Section Harnessing Enter “1” for Starting Section Driver and the correct number of sections for Section Group 1.***
- ***Enter “7” for Starting Section Driver 2 and 2 Sections.***

Setup Section Harnessing

Section harnessing setup. Please reference your product harness to identify section drivers. Ensure unused section drivers are skipped as shown in the example below.

Example

Product	Section Driver	Length
Product 1	1	15.00
	2	15.00
	3	15.00
	4	15.00
Product 2	7	30.00
	8	30.00

60.00 ft

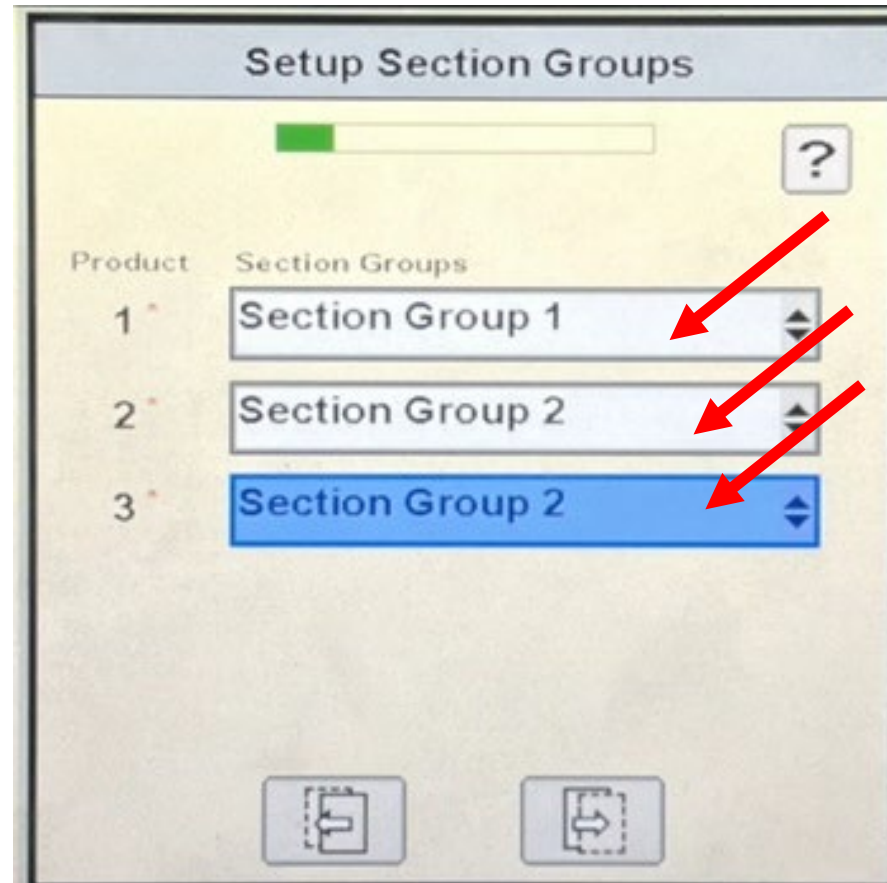
Section Groups	Starting Section Driver	Number of Sections
1	1	4
2	7	2

Liquid Section Driver Dry Section Driver Wired Signal Driver

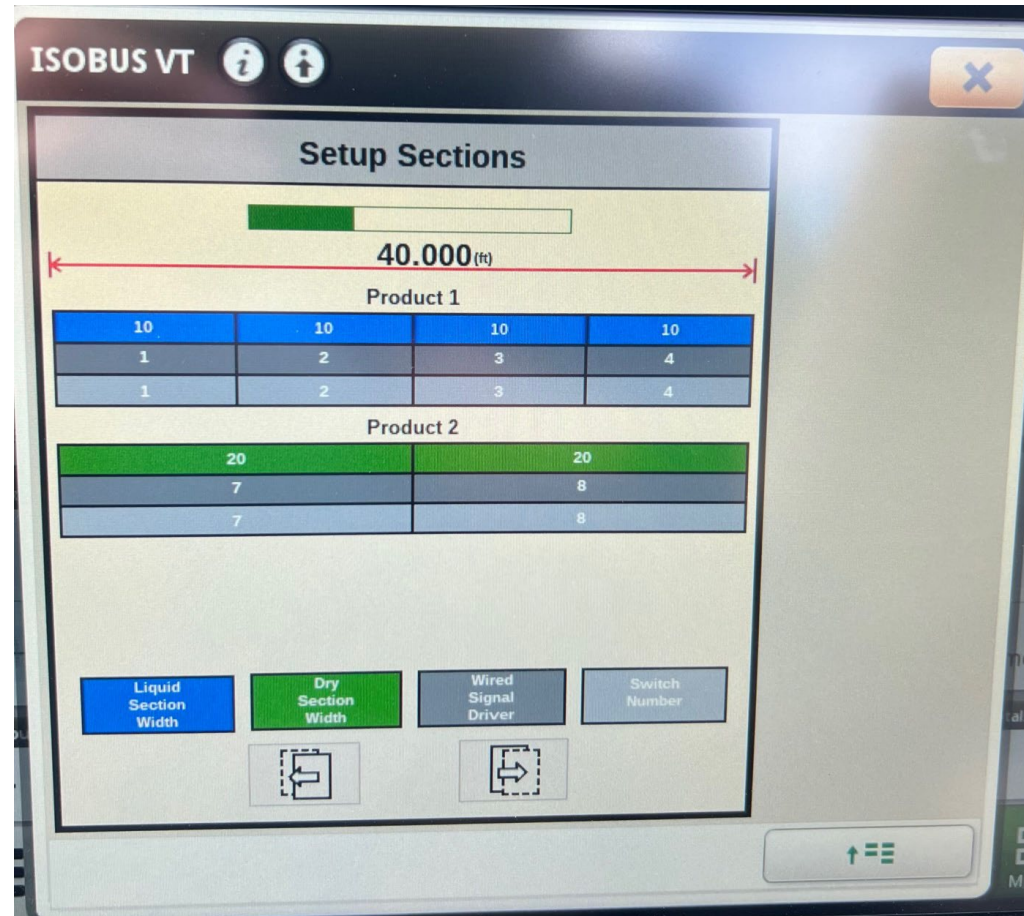
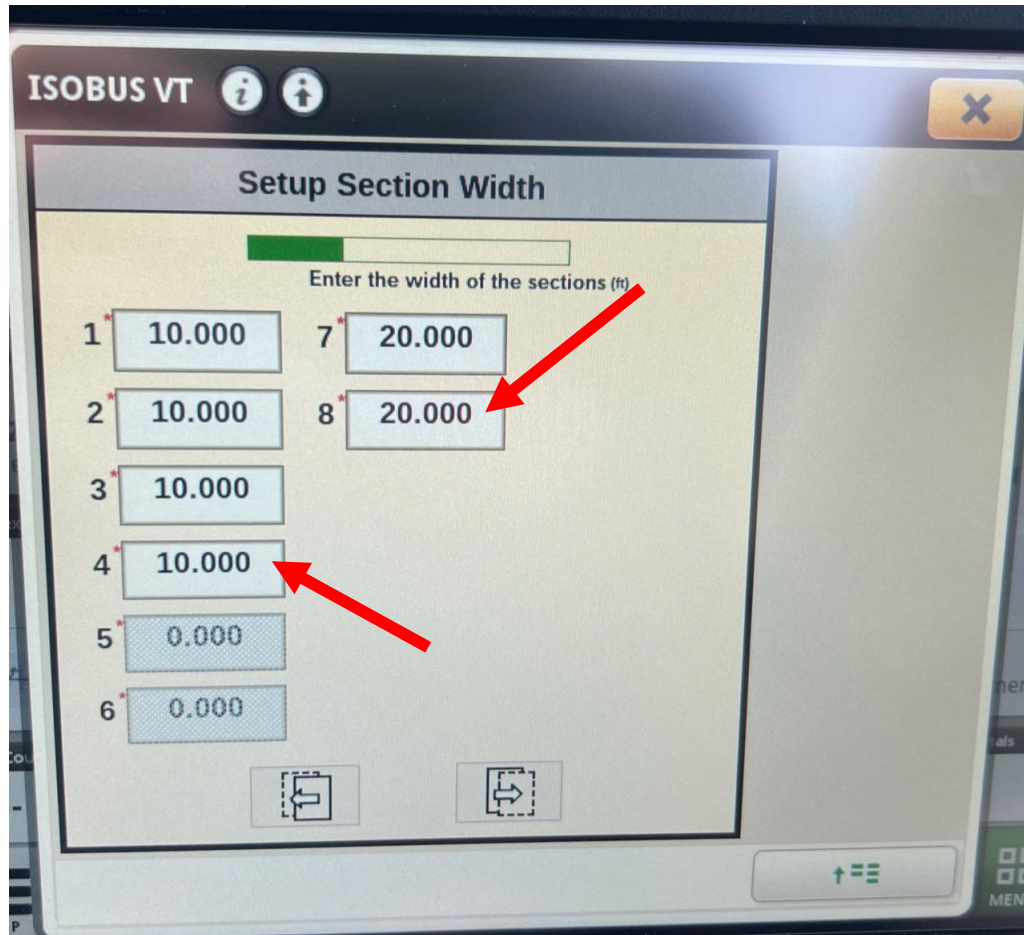
- Under Setup Section Groups Enter “1” for Starting Section Driver and the correct number of sections for Section Group 1 and select “Equal Section Widths”.
- For Section Group 2 Enter “7” as the Starting Section Driver and the correct number of Sections and select “Equal Section Widths”
- The first 6 section groups are reserved for NH3 so Section Group 2 needs to start at 7 or higher

Section Groups	Starting Section Driver	Number of Sections	Equal Section Widths
1	1	4	<input checked="" type="checkbox"/>
2	7	2	<input checked="" type="checkbox"/>

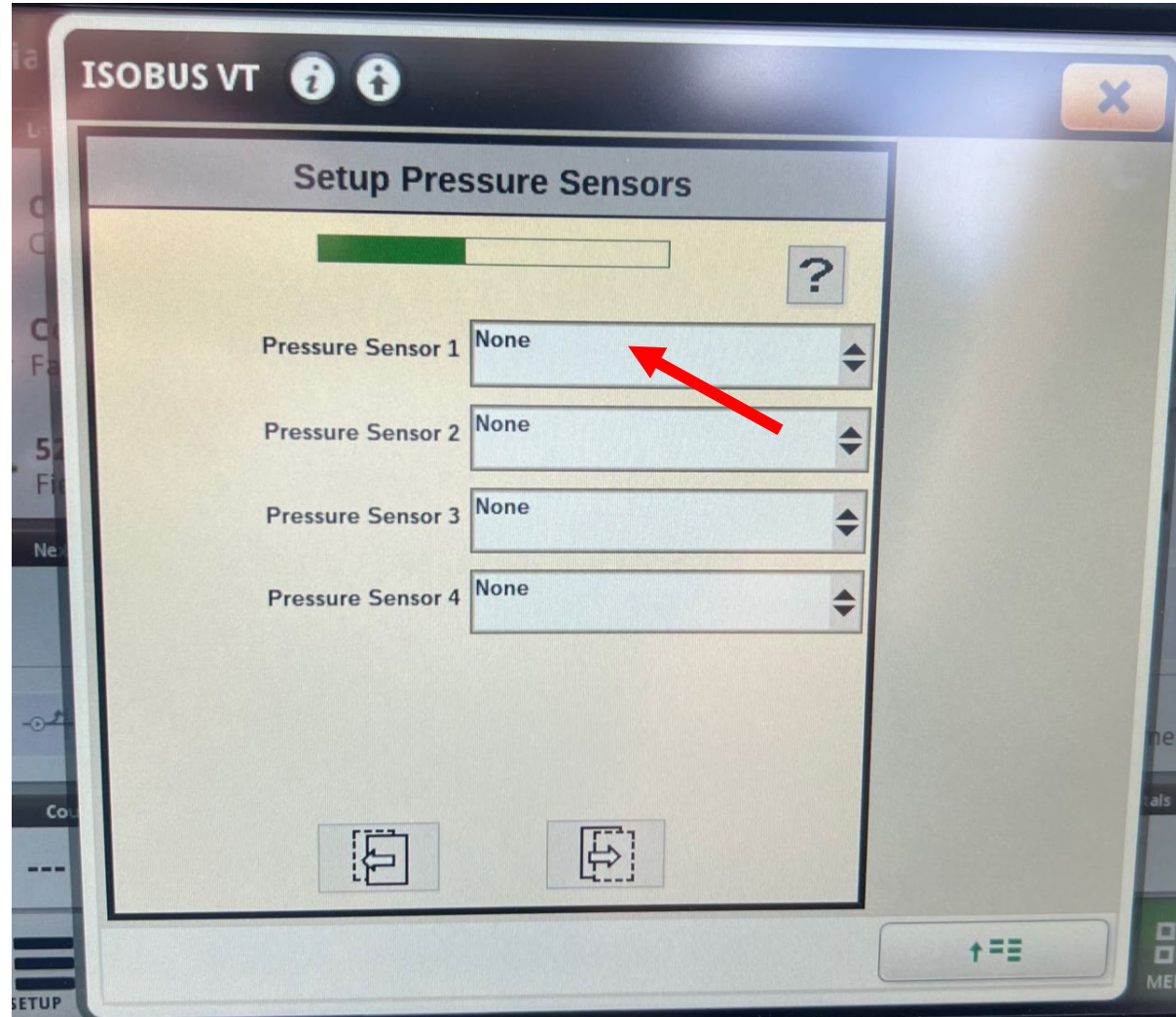
- *Under Setup Section Groups select “Section Group 1” for Product 1*
- *Select “Section Group 2” for Product 2*
- *Select “Section Group 2” for Product 3*



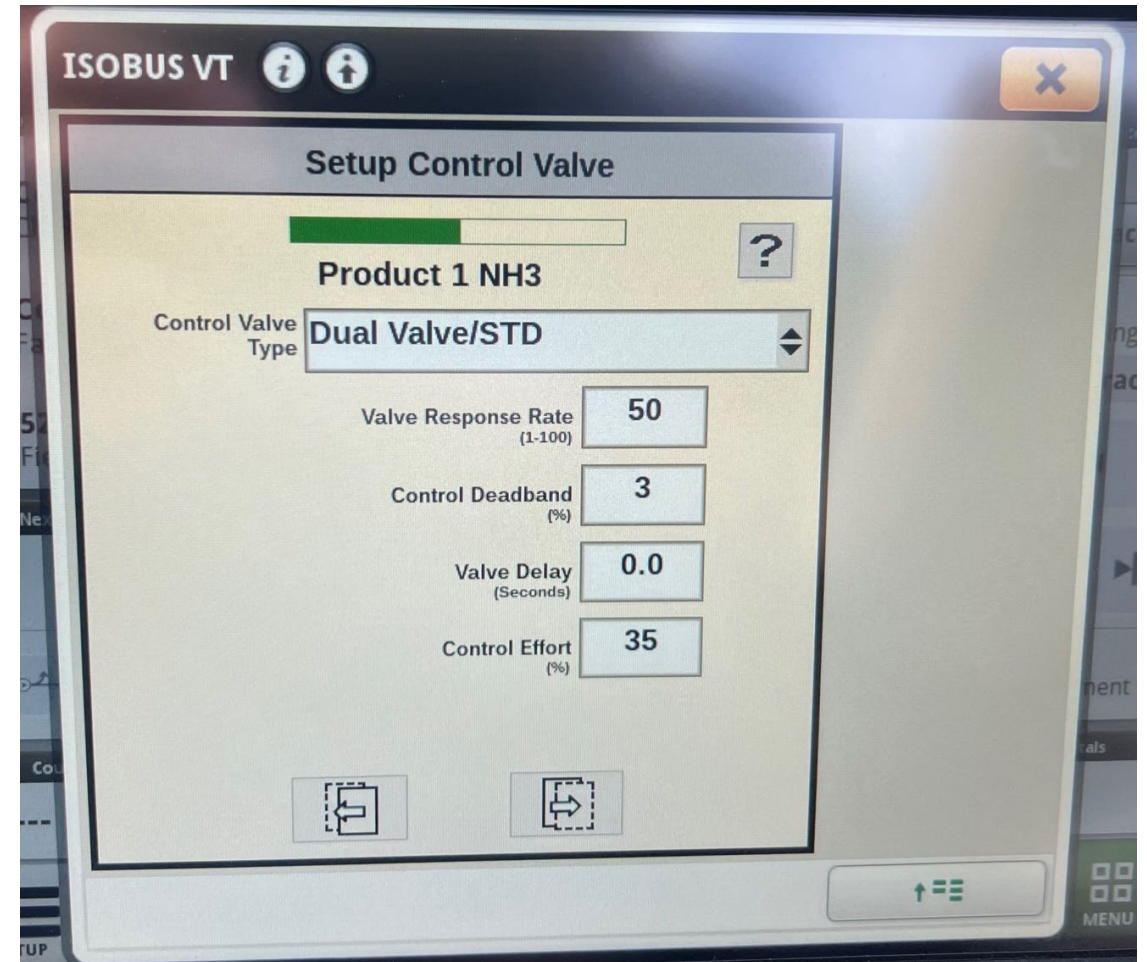
- *Under Setup Section Width enter the correct width for each section.*



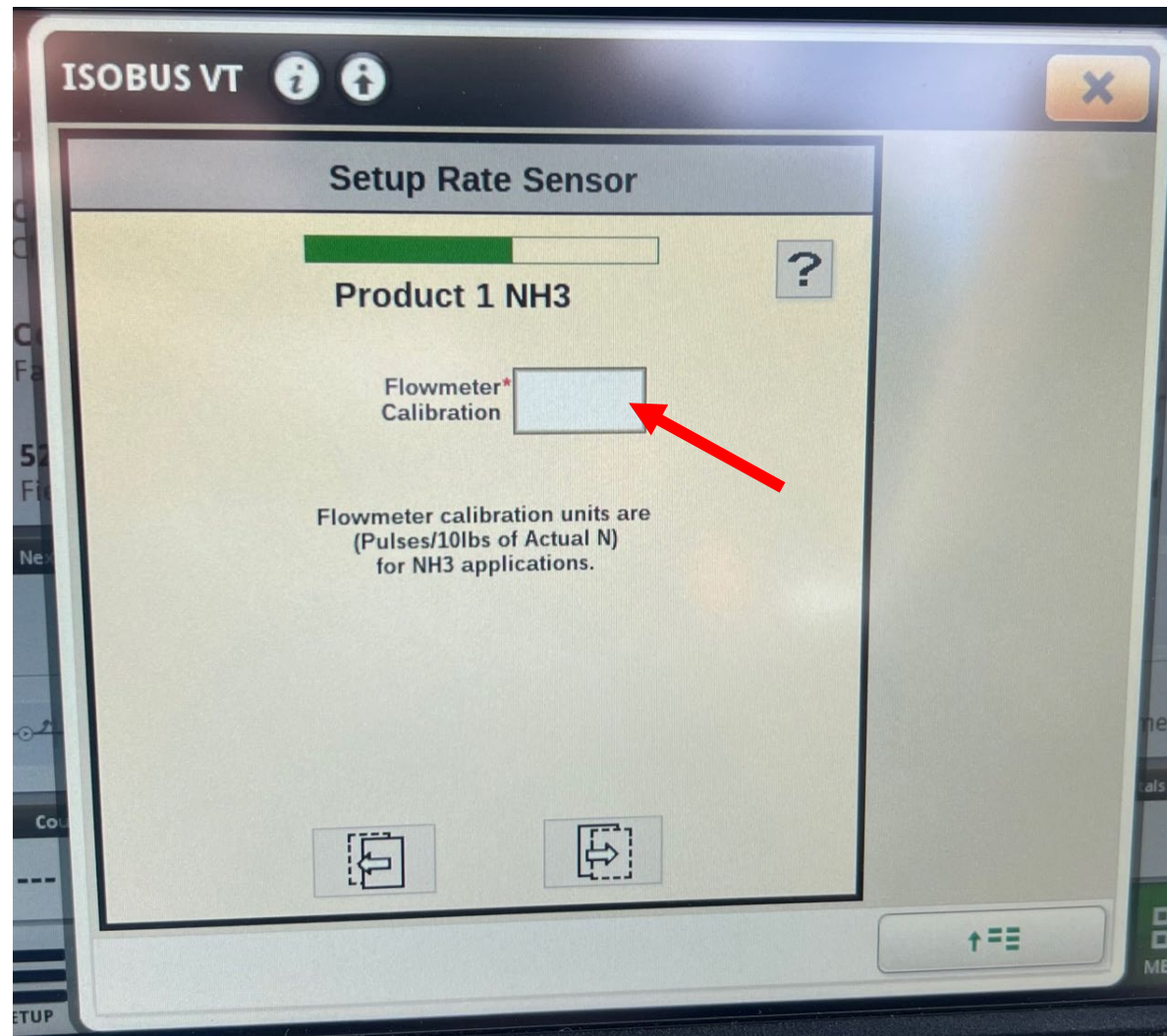
- *Under Setup Pressure Sensors select “None”*



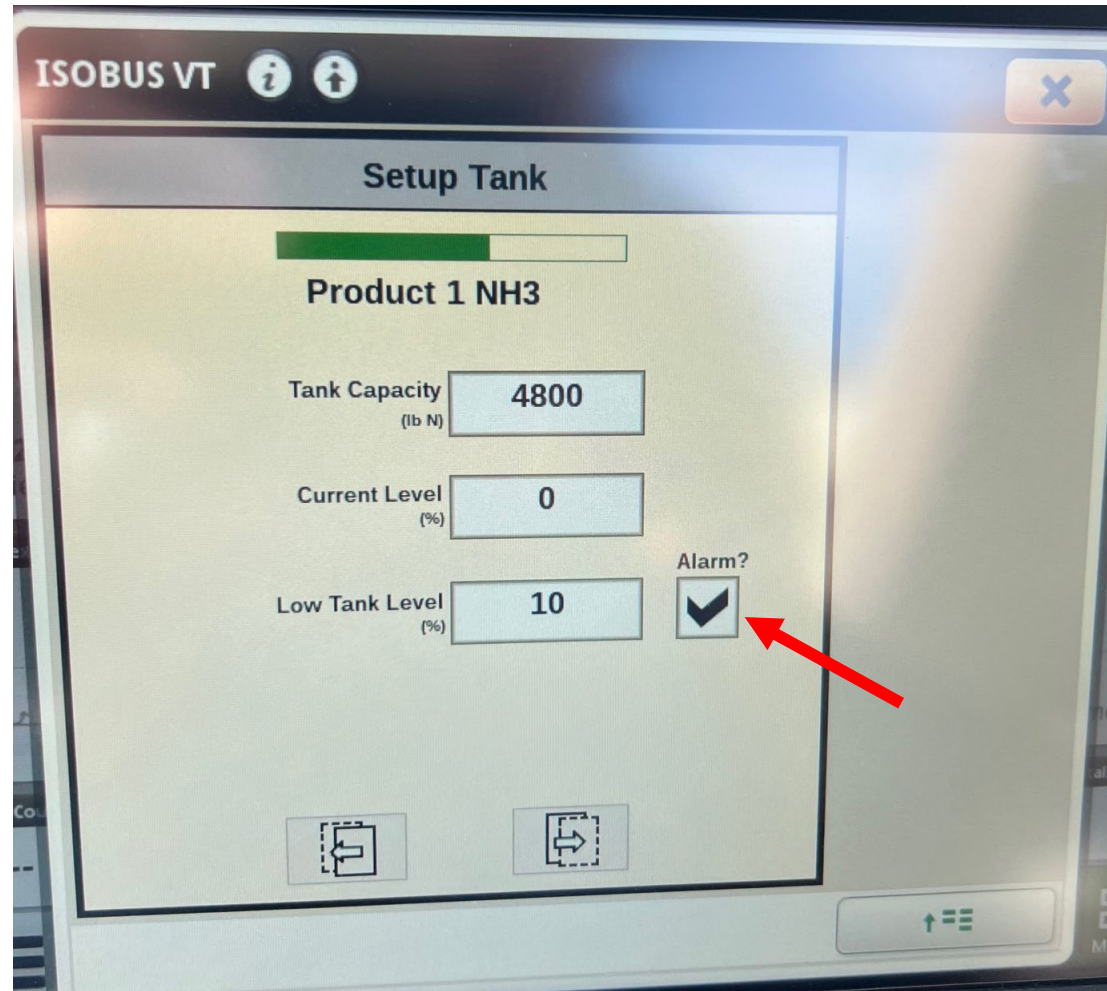
- *Under Setup Control Valve-Product 1 NH3 select “Dual Valve/STD” under Control Valve Type*
- *Enter “50” for Valve Response Rate*
- *Enter “3” for Control Deadband*
- *Enter “0” for Valve Delay*
- *Enter “35” for Control Effort*



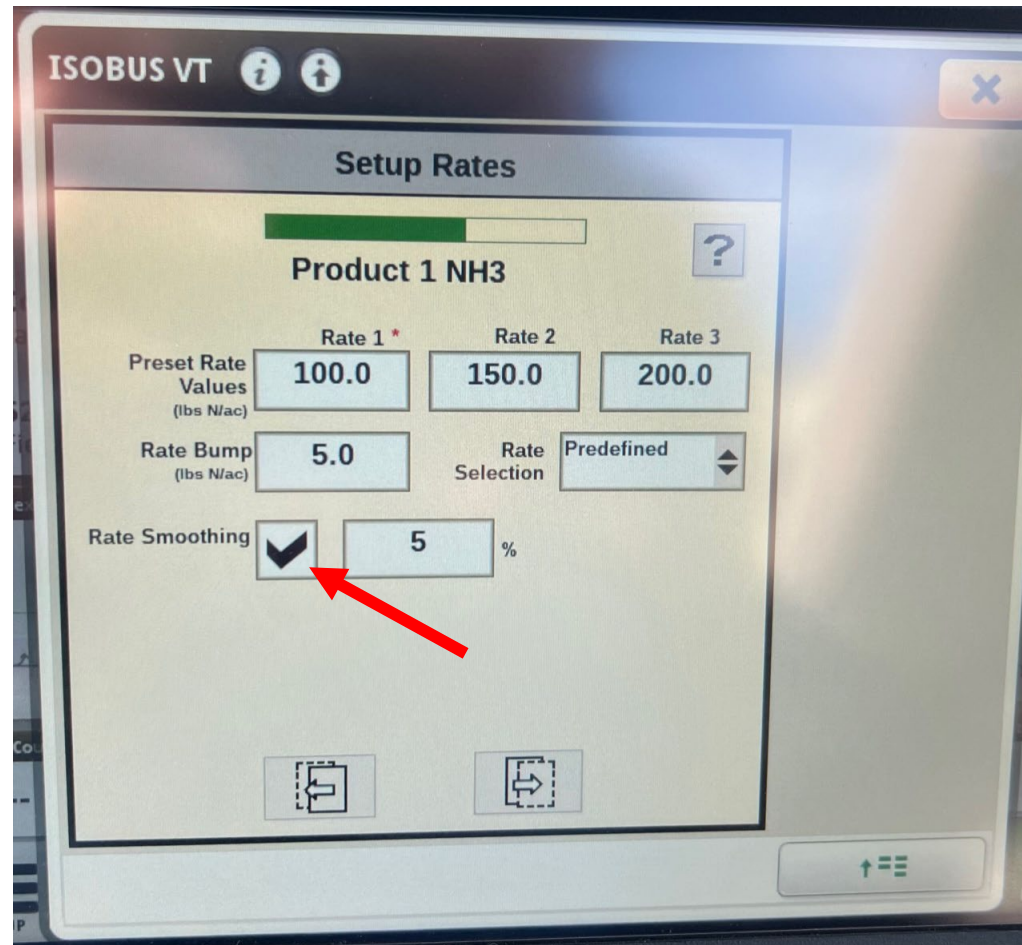
- ***Under Setup Rate Sensors-Product 1 NH3 enter the Flowmeter Calibration number from the tag on the flow meter***



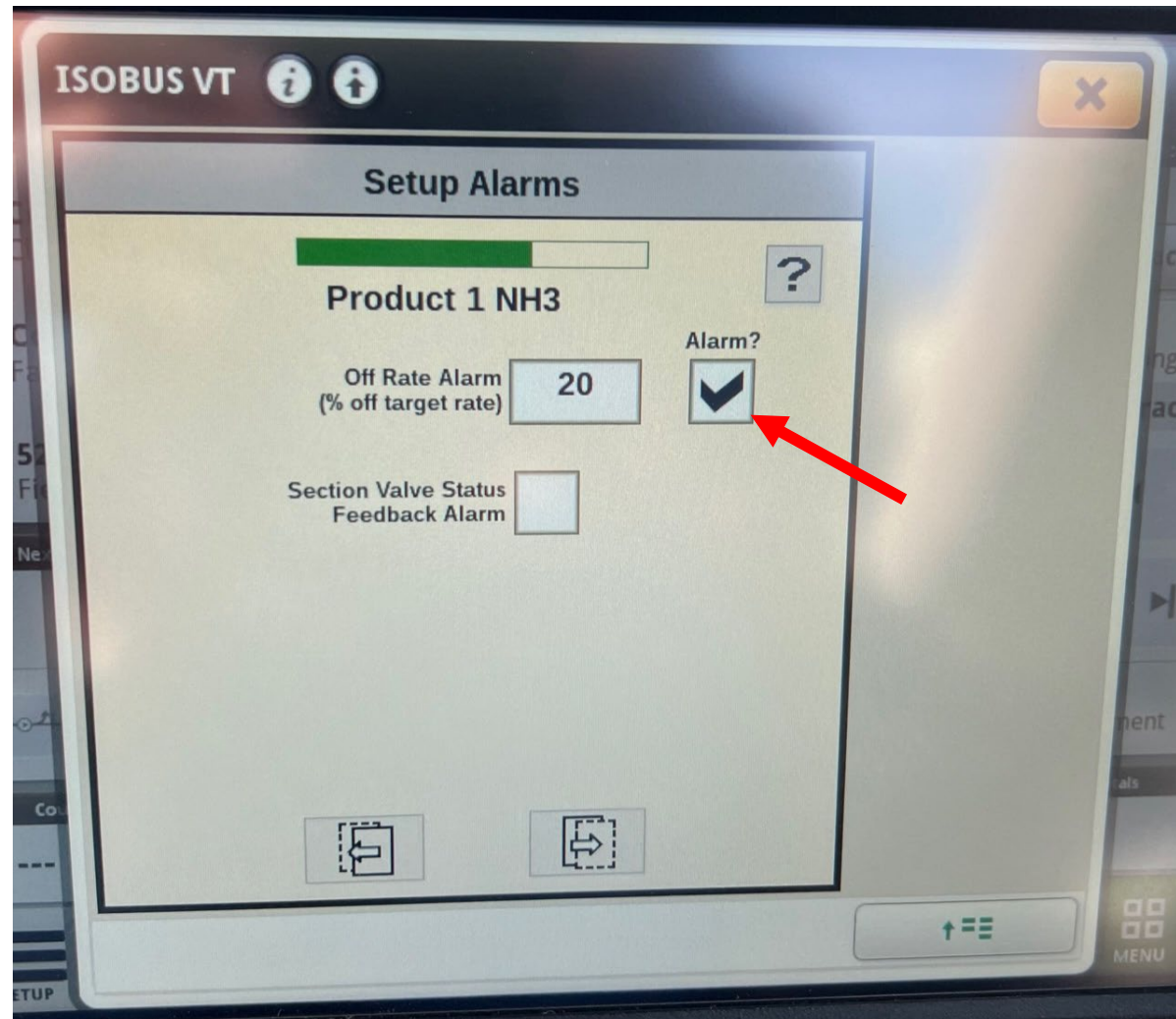
- *Under Setup Tank-Product 1 NH3 enter the desired Tank Capacity and*
- *Enter “10” for Low Tank Level and check “Alarm?” box*



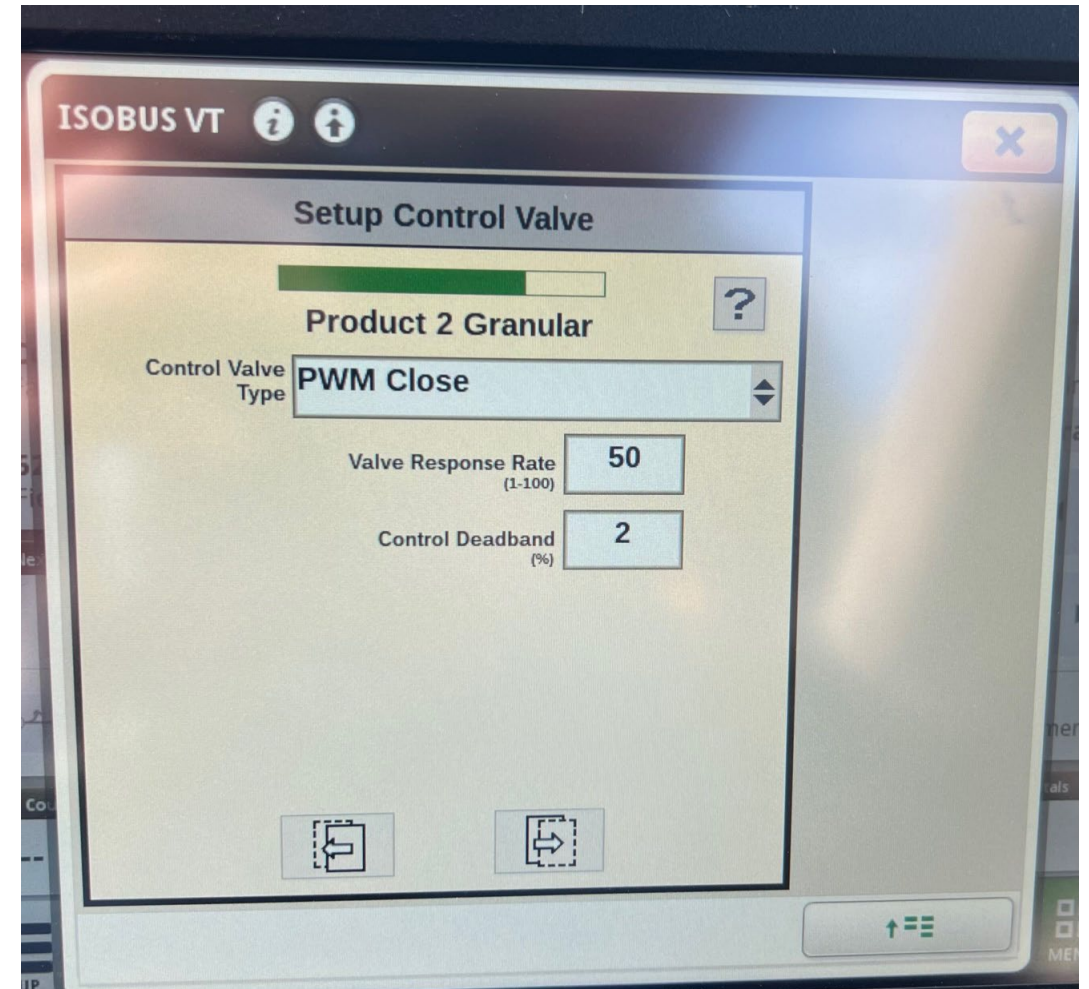
- *Under Setup Rates-Product 1 NH3 enter the desired Preset Rate Values*
- *Enter “5” for Rate Bump*
- *Enter “5” for Rate Smoothing and check Rate Smoothing Box*



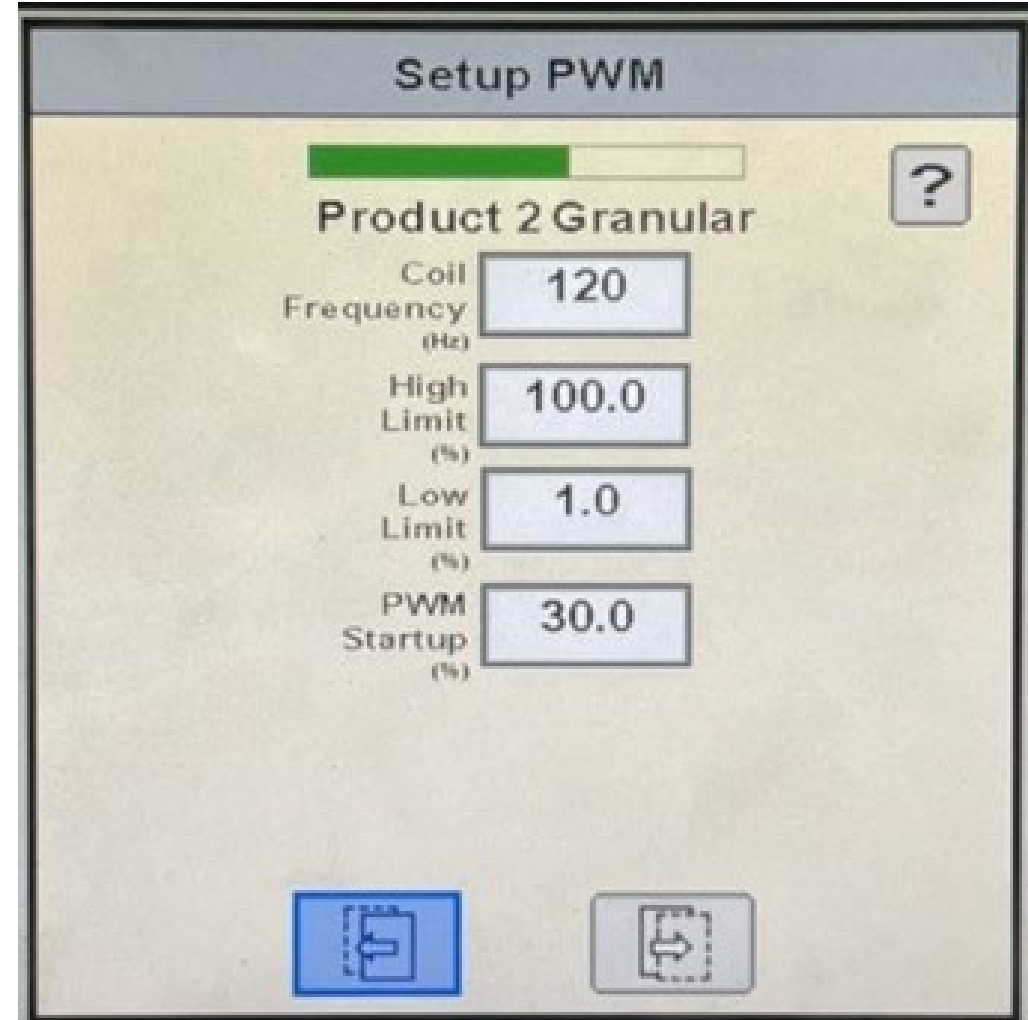
- ***Under Setup Alarms-Product 1 NH3 enter the desired Off Rate Alarm and select the “Alarm?” Checkbox***



- *Under PWM Setup Valve-Product 2 Granular select “PWM Close” under Control Valve Type*
- *Enter “50” for Valve Response Rate*
- *Enter “2” for Control Deadband*



- *Under Setup PWM-Product 2 Granular enter “120” for Coil Frequency*
- *Enter “100” for High Limit*
- *Enter “1” for Low Limit*
- *Enter “30” for PWM Startup*



- *Under Setup Rate Sensor-Product 2 Granular*
- *Enter “600” for Pulses/Revolution*
- *Enter “38” for Product Density*
- *Enter Calibration Weight*
 - *Calibration Weight=1.2 x # of rows*

Setup Rate Sensor

Product 2 Granular

Pulses/Revolution 600

Product Density (lb/Cubic Feet) 38.0

Calibration Weight (lb/Revolution) 11.100

- *Under Setup Tank-Product 2 Granular*
- *Enter “9000” for Tank Capacity*
- *Enter “0” for Low Tank Level*
- *Select “Low Bin Level Sensor”*
Checkbox

Setup Tank

Product 2 Granular

Tank Capacity (lb) 9000

Current Level (lb) 0

Low Tank Level (lb) 0

Alarm?

Low Bin Level Sensor

- *Under Setup Rates-Product 2 Granular*
- *Enter Desired Preset Rate Values*
- *Enter “1” for Rate Bump*
- *Enter “3” for Rate Smoothing*
- *Select “Rate Smoothing”
Checkbox*

The screenshot shows the 'Setup Rates' screen for 'Product 2 Granular'. The screen has a grey header with the title 'Setup Rates'. Below the header is a green progress bar and a question mark icon. The product name 'Product 2 Granular' is displayed. There are three input fields for 'Preset Rate Values (lb/a)' labeled 'Rate 1', 'Rate 2', and 'Rate 3', with values 50, 250, and 500 respectively. Below these is a 'Rate Bump (lb/a)' field with the value 1, and a 'Rate Selection' dropdown menu set to 'Predefined'. The 'Rate Smoothing' section has a checked checkbox and a value of 3 followed by a percent sign. A red arrow points to the 'Rate Smoothing' checkbox. At the bottom, there is a 'Decimal Shift' field with the value 0 and two navigation buttons.

Field	Value
Rate 1	50
Rate 2	250
Rate 3	500
Rate Bump	1
Rate Selection	Predefined
Rate Smoothing	<input checked="" type="checkbox"/> 3 %
Decimal Shift	0

- *Under Setup Alarms-Product 2 Granular enter the desired Off Rate Alarm and Dual Encoder Alarm*
- *Select the “Alarm?” Checkboxes*

Setup Alarms

Product 2 Granular

Off Rate Alarm (% off target rate) 20

Alarm?

Shaft Sensor Alarm

- *Under PWM Setup Valve-Product 3 Granular select “PWM Close” under Control Valve Type*
- *Enter “50” for Valve Response Rate*
- *Enter “2” for Control Deadband*

The screenshot displays the 'Setup Control Valve' interface. At the top, there is a title bar 'Setup Control Valve' and a progress indicator. Below this, the product name 'Product 3 Granular' is shown next to a question mark icon. The 'Control Valve Type' is set to 'PWM Close' in a dropdown menu. The 'Valve Response Rate (1-100)' is set to '50' in a text input field. The 'Control Deadband (%)' is set to '2' in another text input field. At the bottom of the screen, there are two navigation icons: a left-pointing arrow and a right-pointing arrow, both enclosed in dashed boxes.

- *Under Setup PWM-Product 3 Granular enter “120” for Coil Frequency*
- *Enter “100” for High Limit*
- *Enter “1” for Low Limit*
- *Enter “30” for PWM Startup*

The screenshot shows a control panel titled "Setup PWM" for "Product 3 Granular". At the top, there is a green progress bar and a help icon (a question mark in a square). Below the title, four parameters are listed with their corresponding values in input boxes:

Parameter	Value
Coil Frequency (Hz)	120
High Limit (%)	100.0
Low Limit (%)	1.0
PWM Startup (%)	30.0

At the bottom of the screen, there are two navigation buttons: a left arrow button and a right arrow button, both enclosed in dashed-line boxes.

- *Under Setup Rate Sensor-Product 3 Granular*
- *Enter “600” for Pulses/Revolution*
- *Enter Correct Value for Product Density*
- *Enter Calibration Weight*
 - *Calibration Weight = .69375 x # of rows*

The screenshot shows a control panel titled "Setup Rate Sensor" for "Product 3 Granular". At the top, there is a green progress bar and a help icon (a question mark in a square). Below the title, three input fields are visible: "Pulses/Revolution" with the value 600, "Product Density (lb/Cubic Feet)" with the value 38.0, and "Calibration Weight (lb/Revolution)" with the value 11.100. The "Calibration Weight" field is highlighted with a blue border. At the bottom of the screen, there are two navigation icons: a left-pointing arrow and a right-pointing arrow, both enclosed in dashed-line boxes.

- *Under Setup Tank-Product 3 Granular*
- *Enter “9000” for Tank Capacity*
- *Enter “0” for Low Tank Level*
- *Select “Low Bin Level Sensor”
Checkbox*

Setup Tank

Product 3 Granular



Tank Capacity (lb)

Current Level (lb)

Low Tank Level (lb)

Alarm?

Low Bin Level Sensor

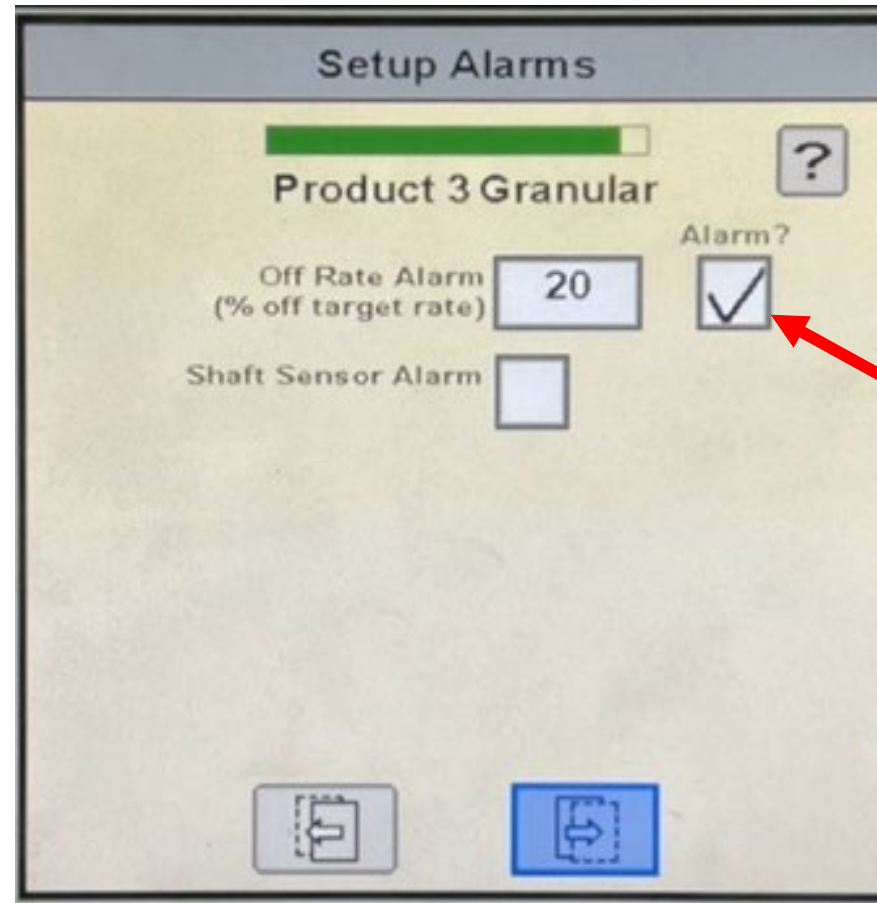
Navigation icons:  

- *Under Setup Rates-Product 3 Granular*
- *Enter Desired Preset Rate Values*
- *Enter “1” for Rate Bump*
- *Enter “3” for Rate Smoothing*
- *Select “Rate Smoothing”
Checkbox*

The screenshot shows the 'Setup Rates' interface for 'Product 3 Granular'. The interface includes a progress bar at the top, a help icon, and several input fields. The 'Preset Rate Values (lb/acc)' are set to 50, 250, and 500. The 'Rate Bump (lb/acc)' is set to 0. The 'Rate Selection' is set to 'Predefined'. The 'Rate Smoothing' checkbox is checked, and the value '3' is entered in the adjacent field, with a red arrow pointing to it. The 'Decimal Shift' is set to 0. At the bottom, there are two navigation icons.

Field	Value
Rate 1	50
Rate 2	250
Rate 3	500
Rate Bump (lb/acc)	0
Rate Selection	Predefined
Rate Smoothing	<input checked="" type="checkbox"/> 3 %
Decimal Shift	0

- *Under Setup Alarms-Product 3 Granular enter the desired Off Rate Alarm and Dual Encoder Alarm*
- *Select the “Alarm?” Checkboxes*



- *Setup is now complete*
- *Select “Accept” to close the Setup Wizard*

