



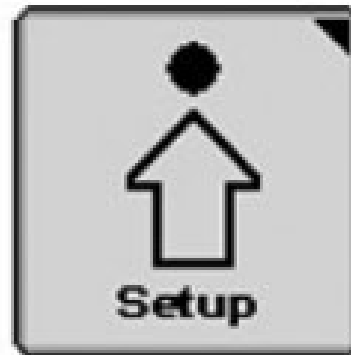
***Dual Product Setup
John Deere
Rate Controller 2000
Lynx Q2 Dry Box***



- *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**

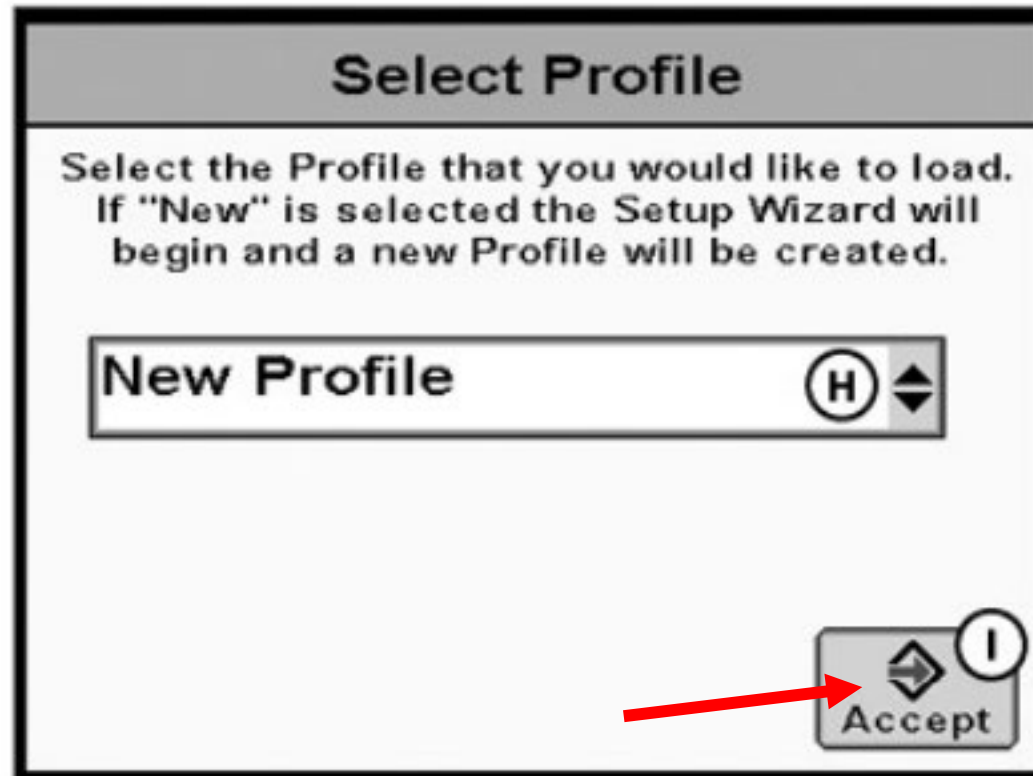
Application Width **16.000(m)**

Section Setup Summary

Height Switch

Test Speed 

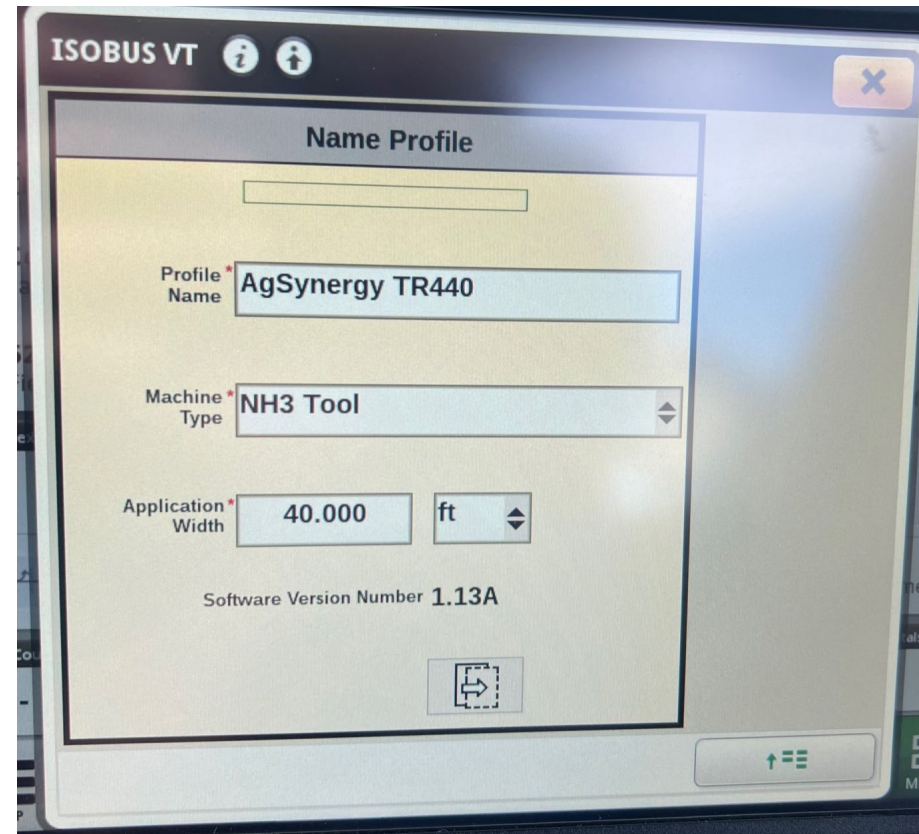
- *Select New Profile from the drop down menu (H), Then Press Accept (I)*



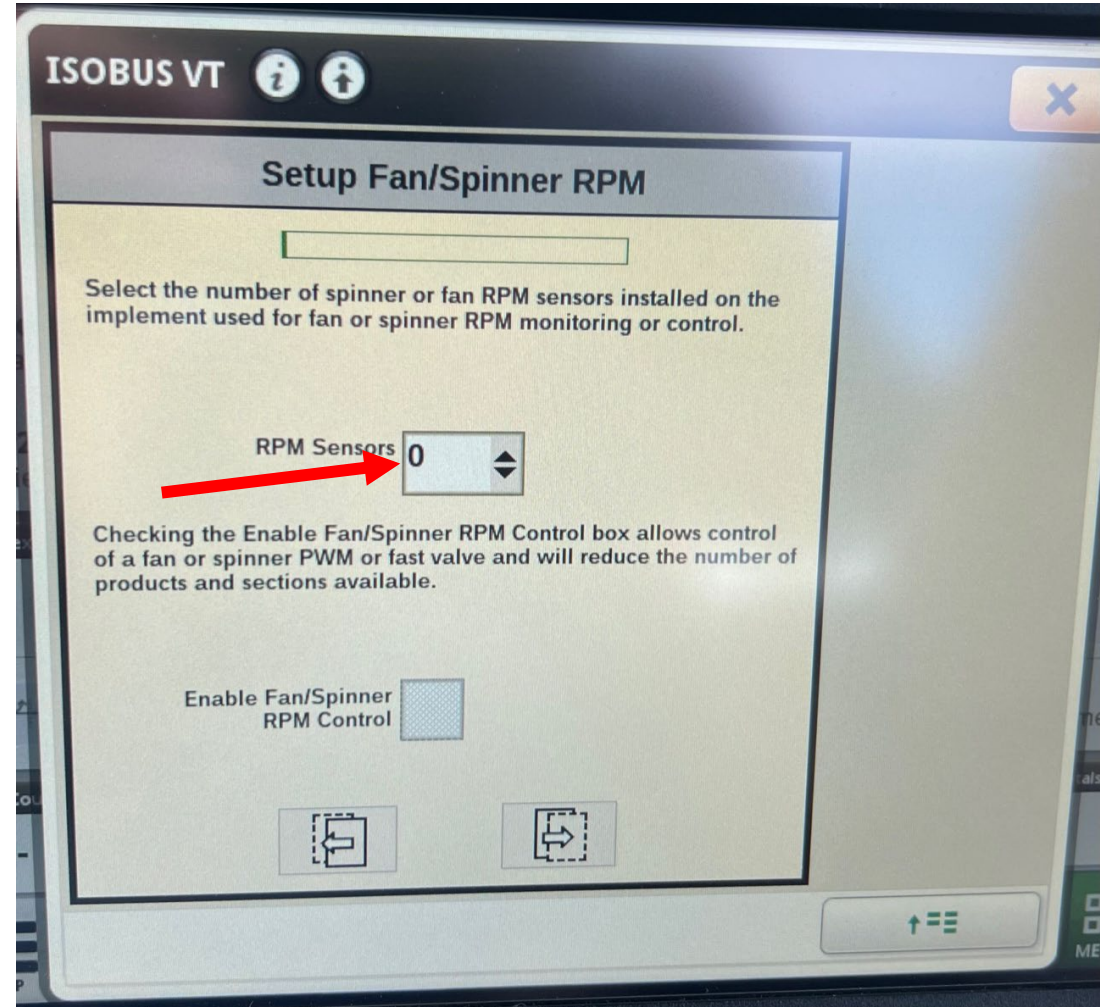
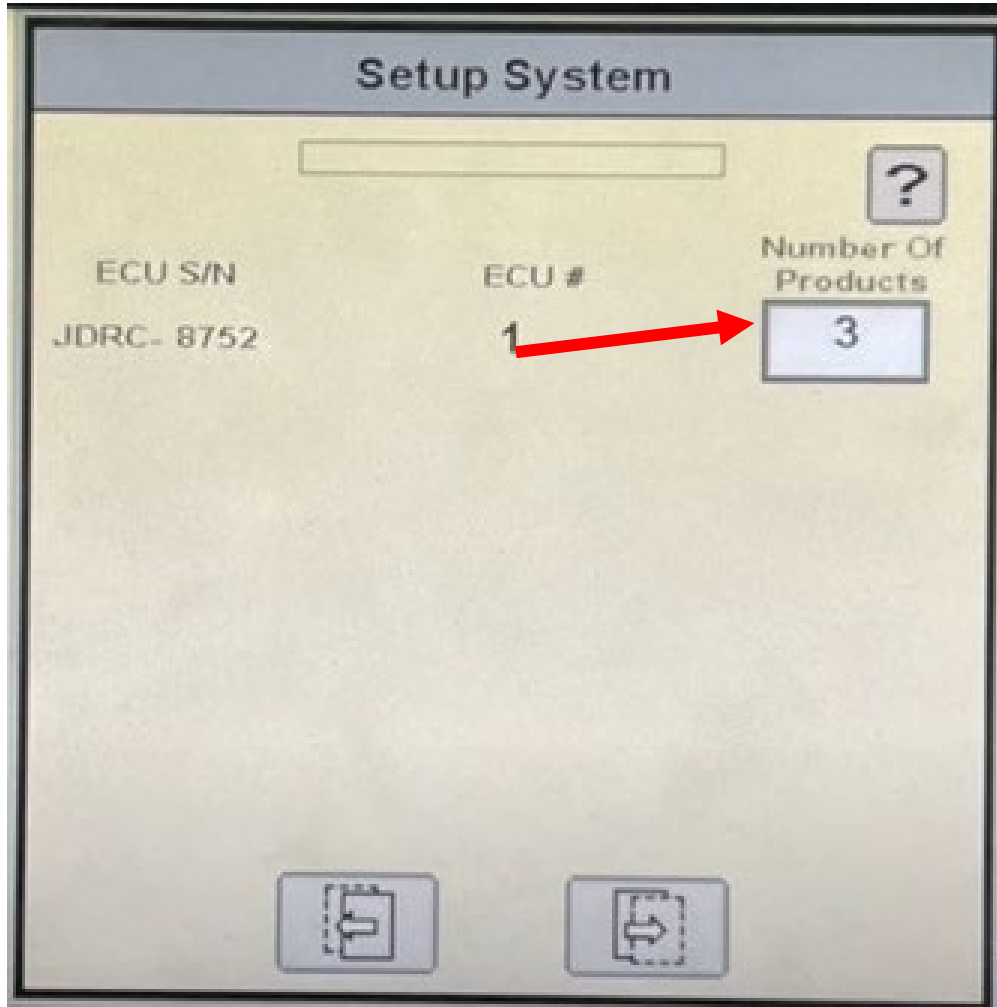
- *Create a Profile Name (A), Select NH3 Machine as Machine Type (B), enter Application Width (C), and press the next Icon (E)*

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



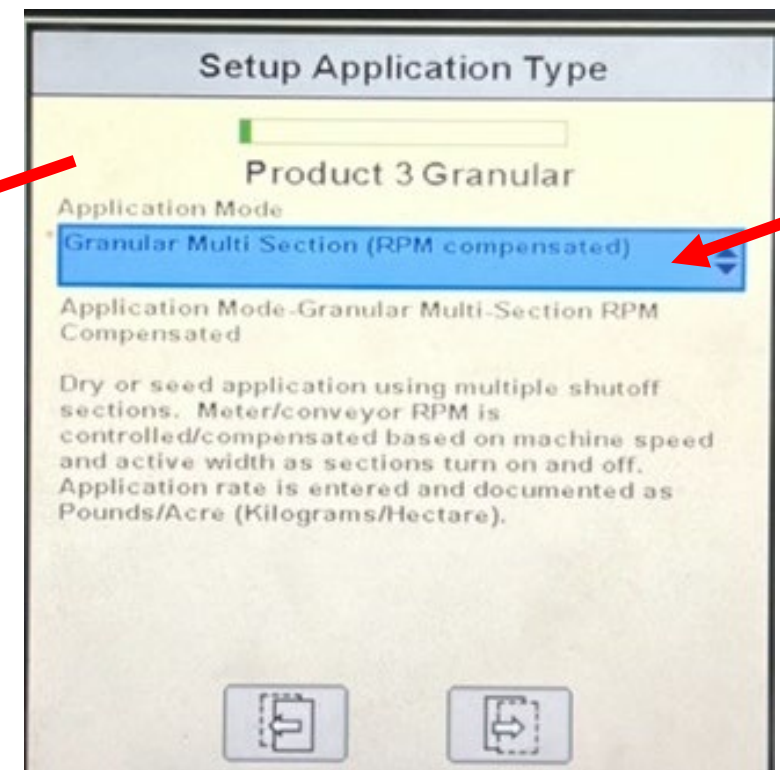
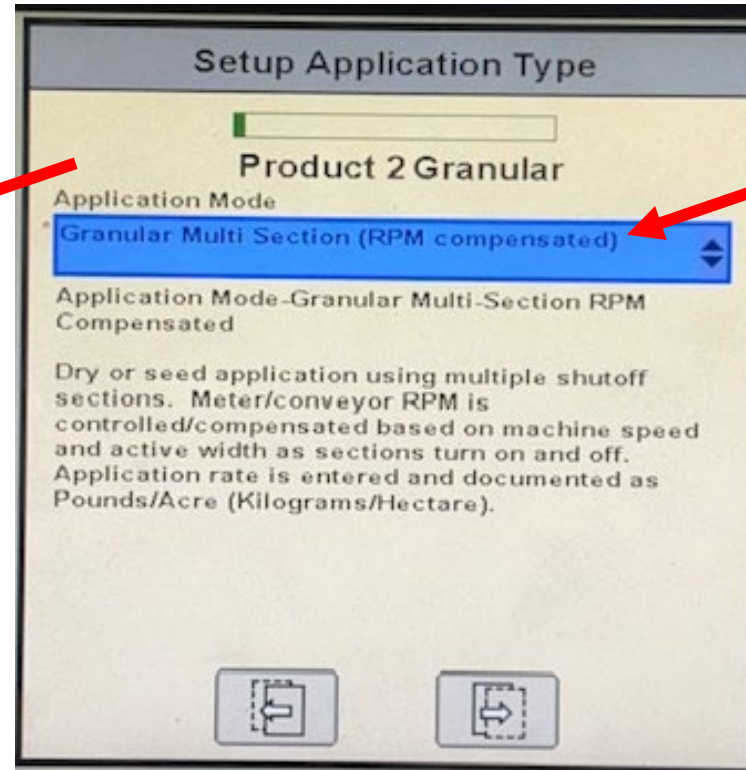
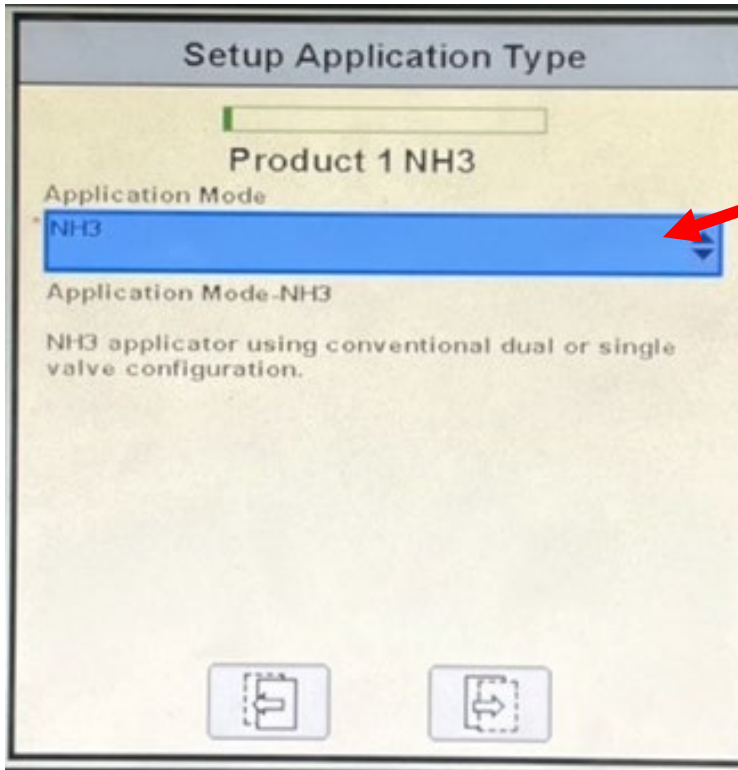
- *Under Setup Application Type select “NH3” for Product 1*
- *Select “Granular Fertilizer” for Products 2 and 3*

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".

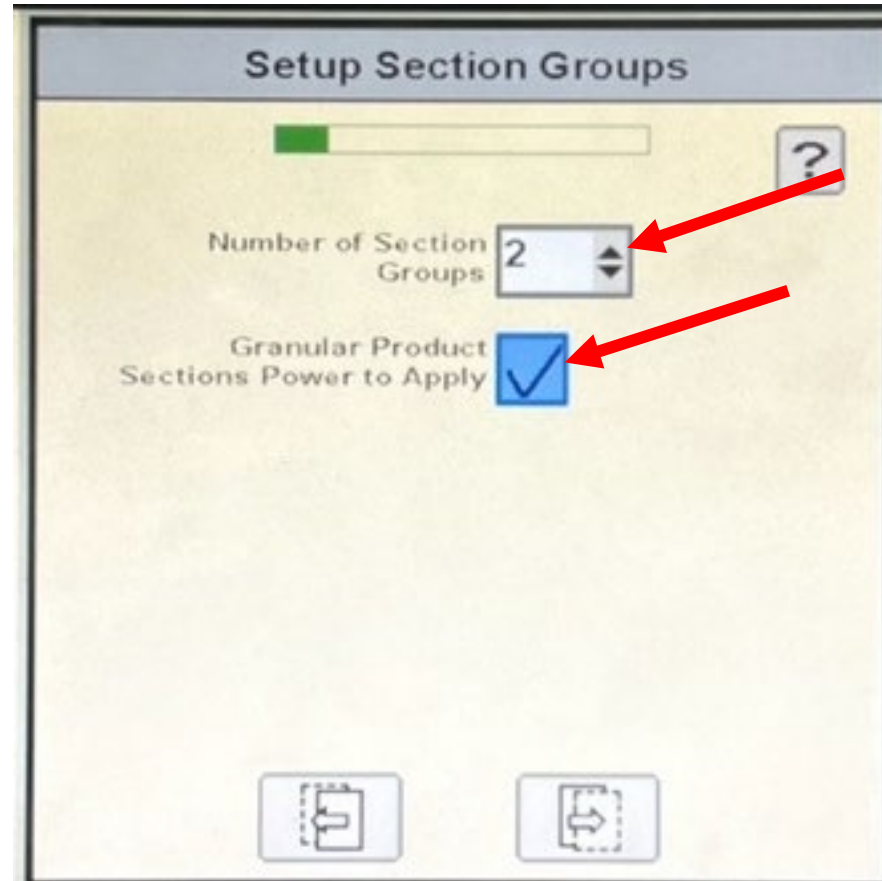
Product	Application Type
1	NH3
2	Granular Fertilizer
3	Granular Fertilizer

Red arrows point to the selected application types in each row. 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

	Section Groups	Starting Section Driver	Number of Sections												
<p style="text-align: center;">60.00 ft</p> <p style="text-align: center;">Product 1</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #0070C0; color: white; text-align: center;">15.00</td> <td style="background-color: #0070C0; color: white; text-align: center;">15.00</td> <td style="background-color: #0070C0; color: white; text-align: center;">15.00</td> <td style="background-color: #0070C0; color: white; text-align: center;">15.00</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> </tr> </table> <p style="text-align: center;">Product 2</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #008000; color: white; text-align: center;">30.00</td> <td style="background-color: #008000; color: white; text-align: center;">30.00</td> </tr> <tr> <td style="text-align: center;">7</td> <td style="text-align: center;">8</td> </tr> </table> <p style="text-align: center;"> Liquid Section Driver Dry Section Driver Wired Signal Driver </p>	15.00	15.00	15.00	15.00	1	2	3	4	30.00	30.00	7	8	1	<input style="width: 30px; height: 30px; border: 1px solid black;" type="text" value="1"/>	<input style="width: 30px; height: 30px; border: 1px solid black;" type="text" value="4"/>
15.00	15.00	15.00	15.00												
1	2	3	4												
30.00	30.00														
7	8														
	2	<input style="width: 30px; height: 30px; border: 1px solid black;" type="text" value="7"/>	<input style="width: 30px; height: 30px; border: 1px solid black;" type="text" value="2"/>												

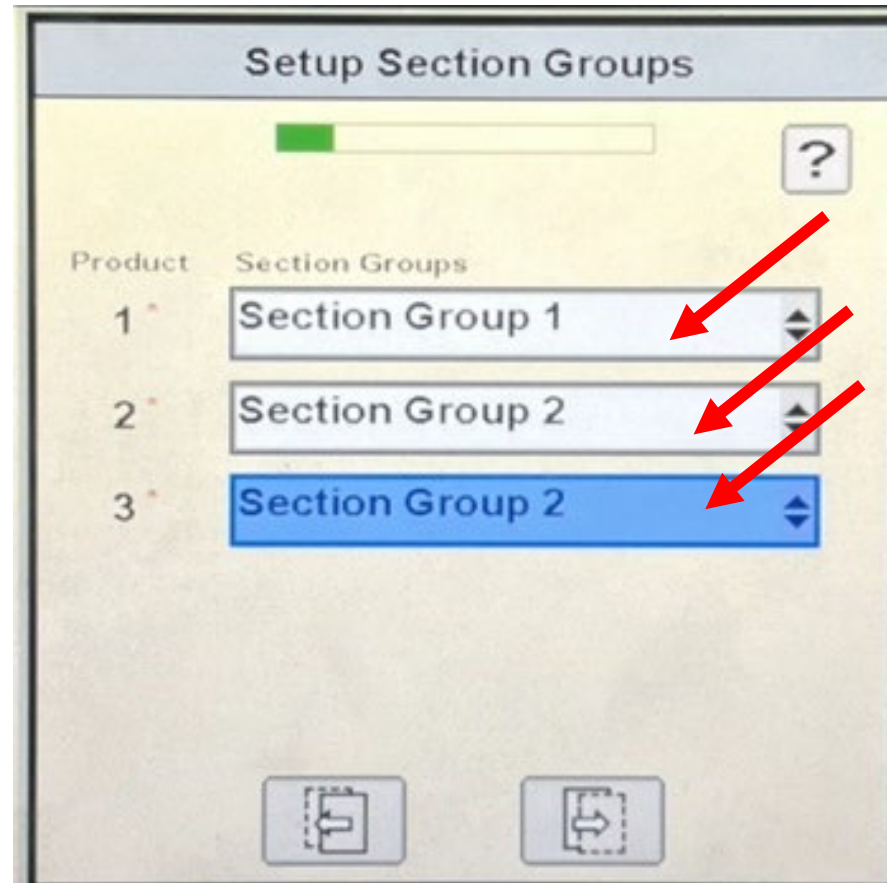
- Under Setup Section Groups Enter “1” for Starting Section Driver and the correct number of sections for Section Group 1 and select “Equal Section Widths”.
- For Section Group 2 Enter “7” as the Starting Section Driver and the correct number of Sections and select “Equal Section Widths”
- The first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

The screenshot shows a software interface titled "Setup Section Groups". At the top, there is a progress bar with a green segment on the left and a question mark icon on the right. Below this, there is a table with four columns: "Section Groups", "Starting Section Driver", "Number of Sections", and "Equal Section Widths".

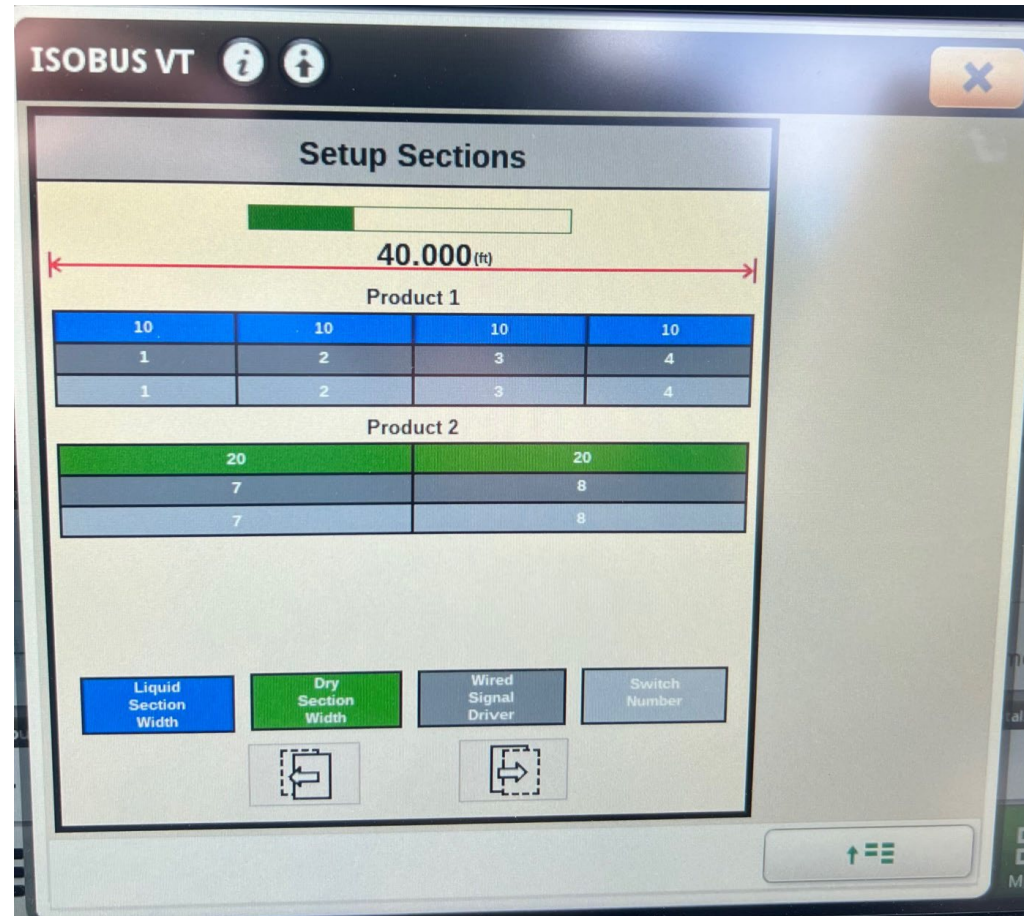
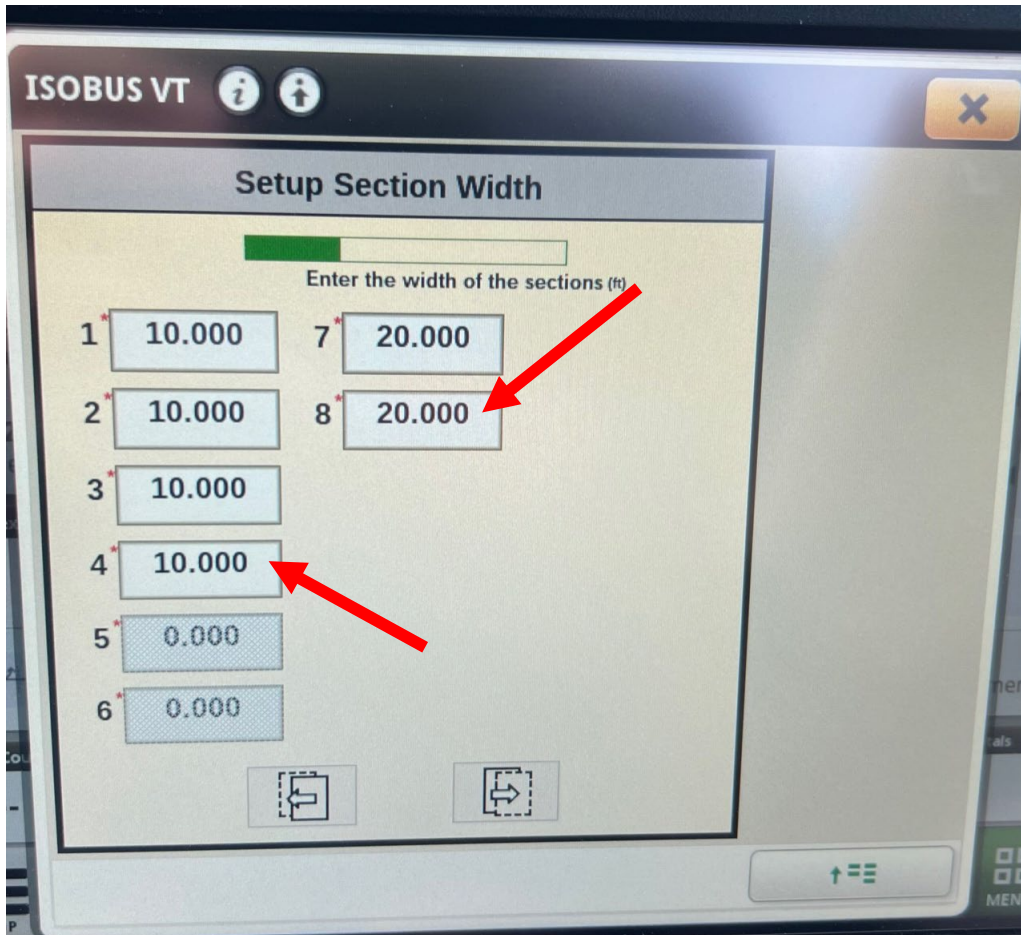
Section Groups	Starting Section Driver	Number of Sections	Equal Section Widths
1	1	4	<input checked="" type="checkbox"/>
2	7	2	<input checked="" type="checkbox"/>

Red arrows point to the "Starting Section Driver" input boxes for Section Groups 1 and 2, which contain the values 1 and 7 respectively. The "Number of Sections" input box for Section Group 2 is highlighted in blue and contains the value 2. At the bottom of the interface, there are two navigation icons: a left-pointing arrow and a right-pointing arrow.

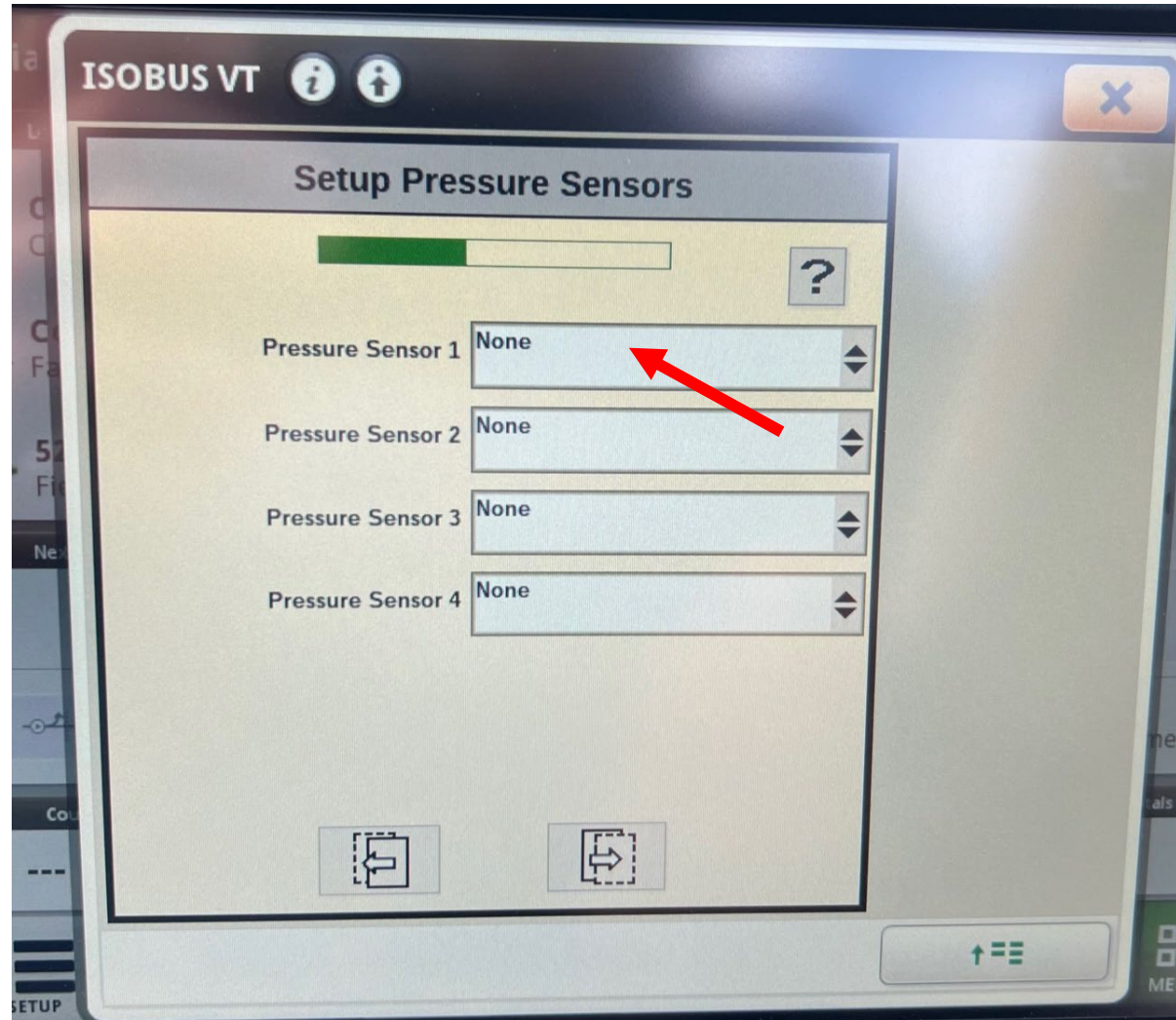
- *Under Setup Section Groups select “Section Group 1” for Product 1*
- *Select “Section Group 2” for Product 2*
- *Select “Section Group 2” for Product 3*



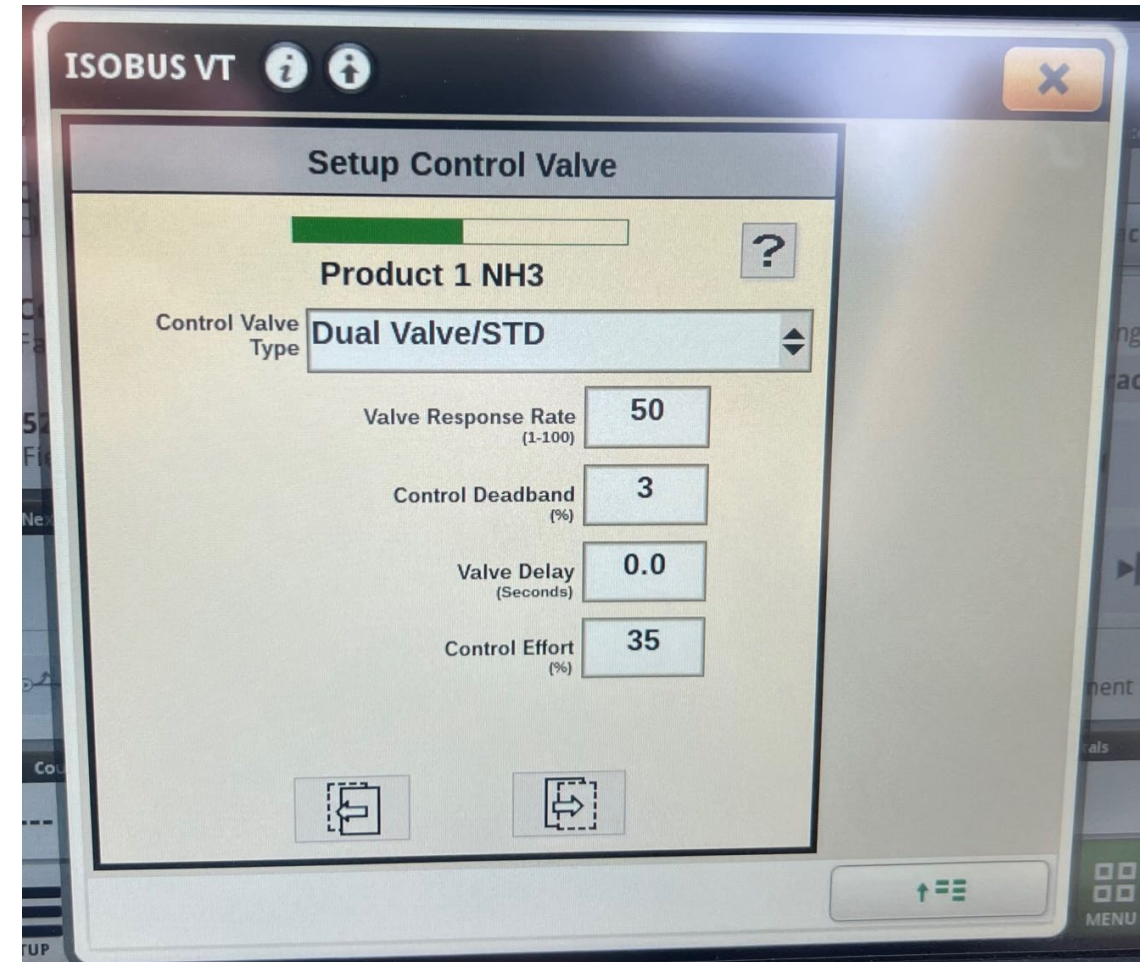
- *Under Setup Section Width enter the correct width for each section.*



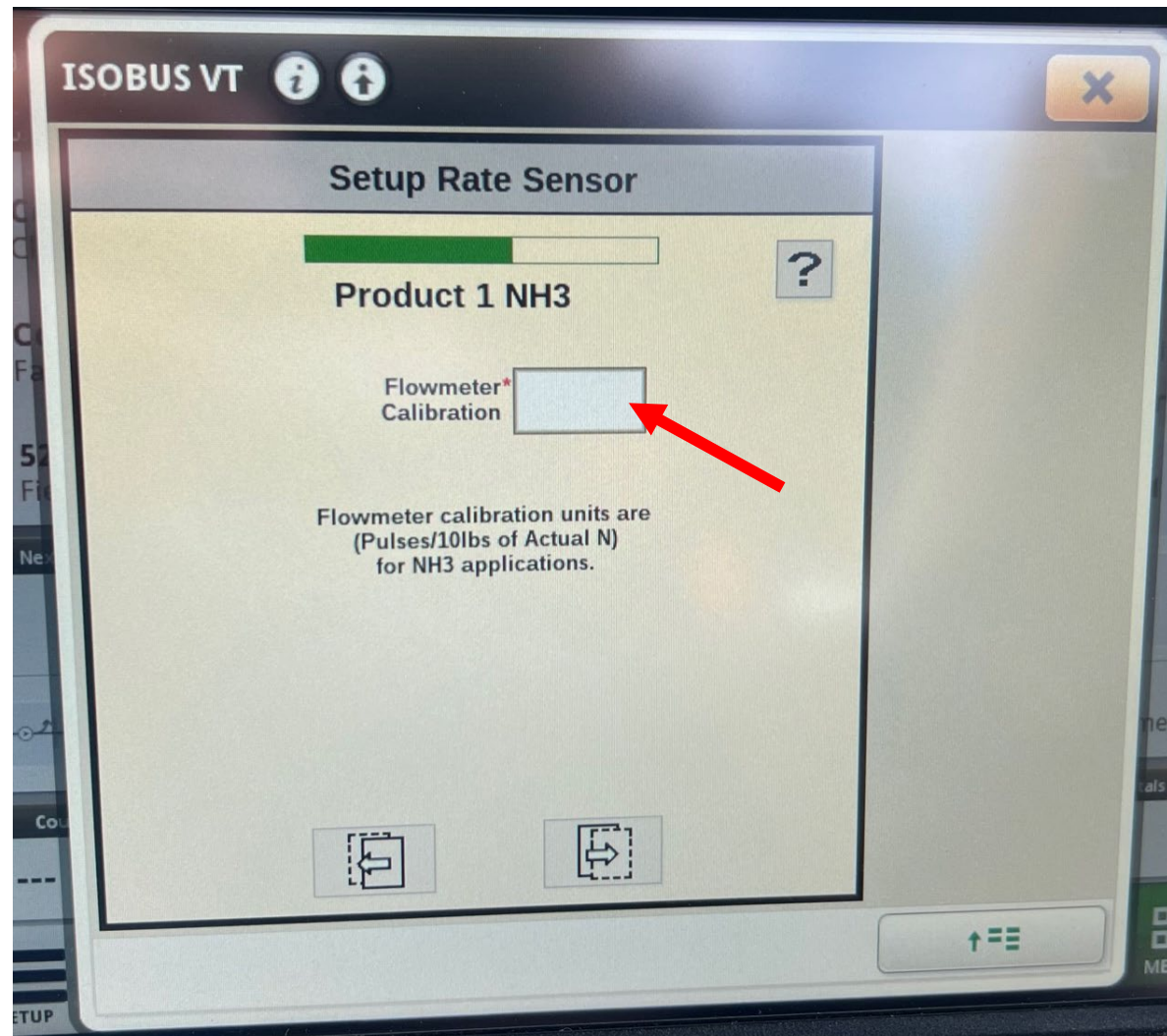
- *Under Setup Pressure Sensors select “None”*



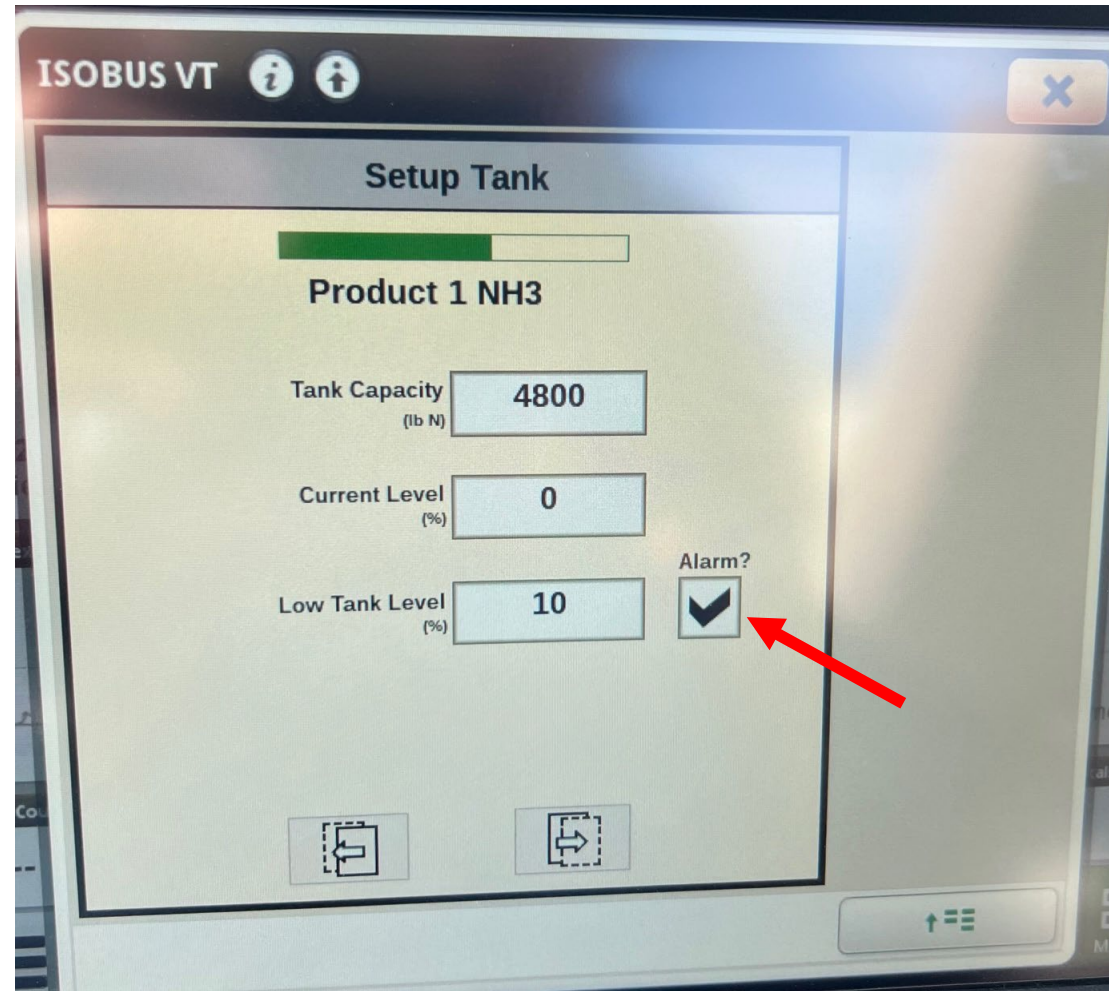
- *Under Setup Control Valve-Product 1 NH3 select “Dual Valve/STD” under Control Valve Type*
- *Enter “50” for Valve Response Rate*
- *Enter “3” for Control Deadband*
- *Enter “0” for Valve Delay*
- *Enter “35” for Control Effort*



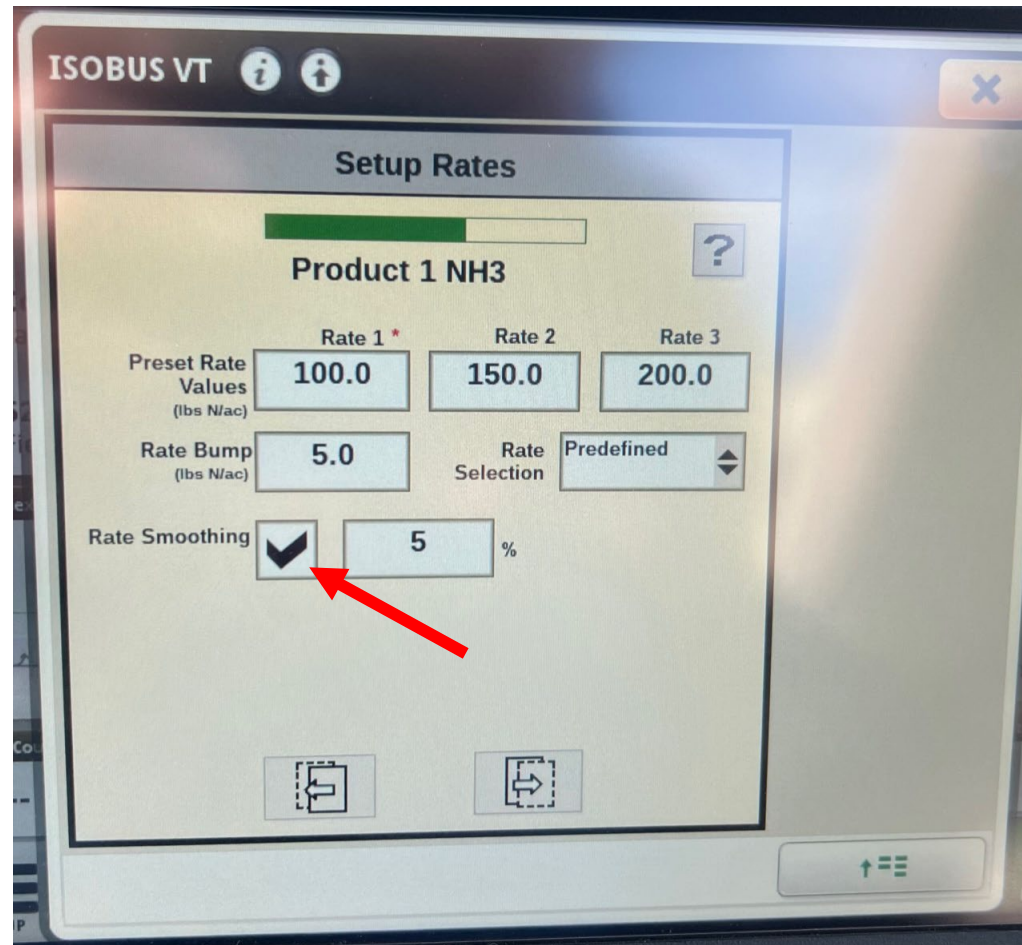
- ***Under Setup Rate Sensors-Product 1 NH3 enter the Flowmeter Calibration number from the tag on the flow meter***



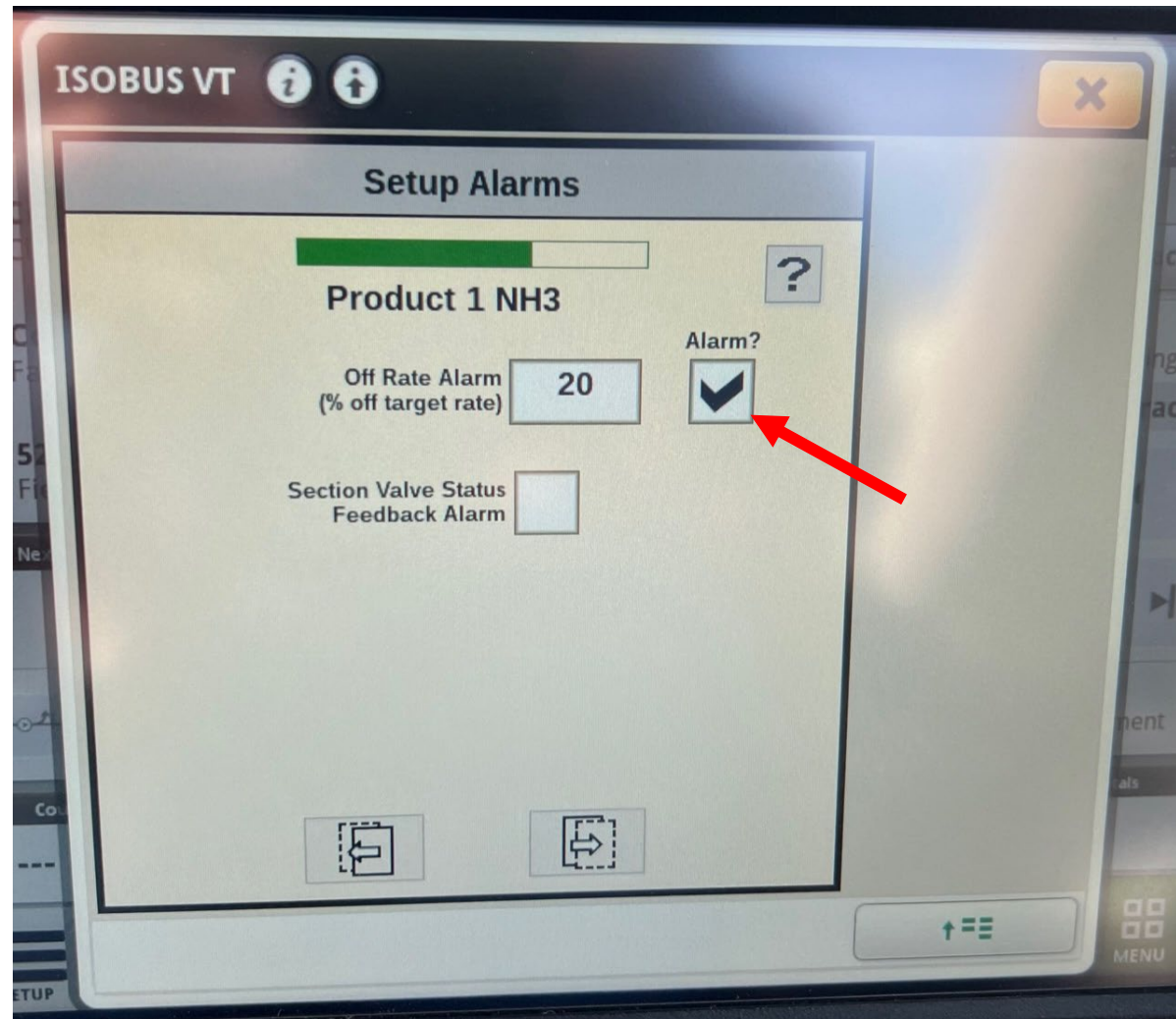
- *Under Setup Tank-Product 1 NH3 enter the desired Tank Capacity and*
- *Enter “10” for Low Tank Level and check “Alarm?” box*



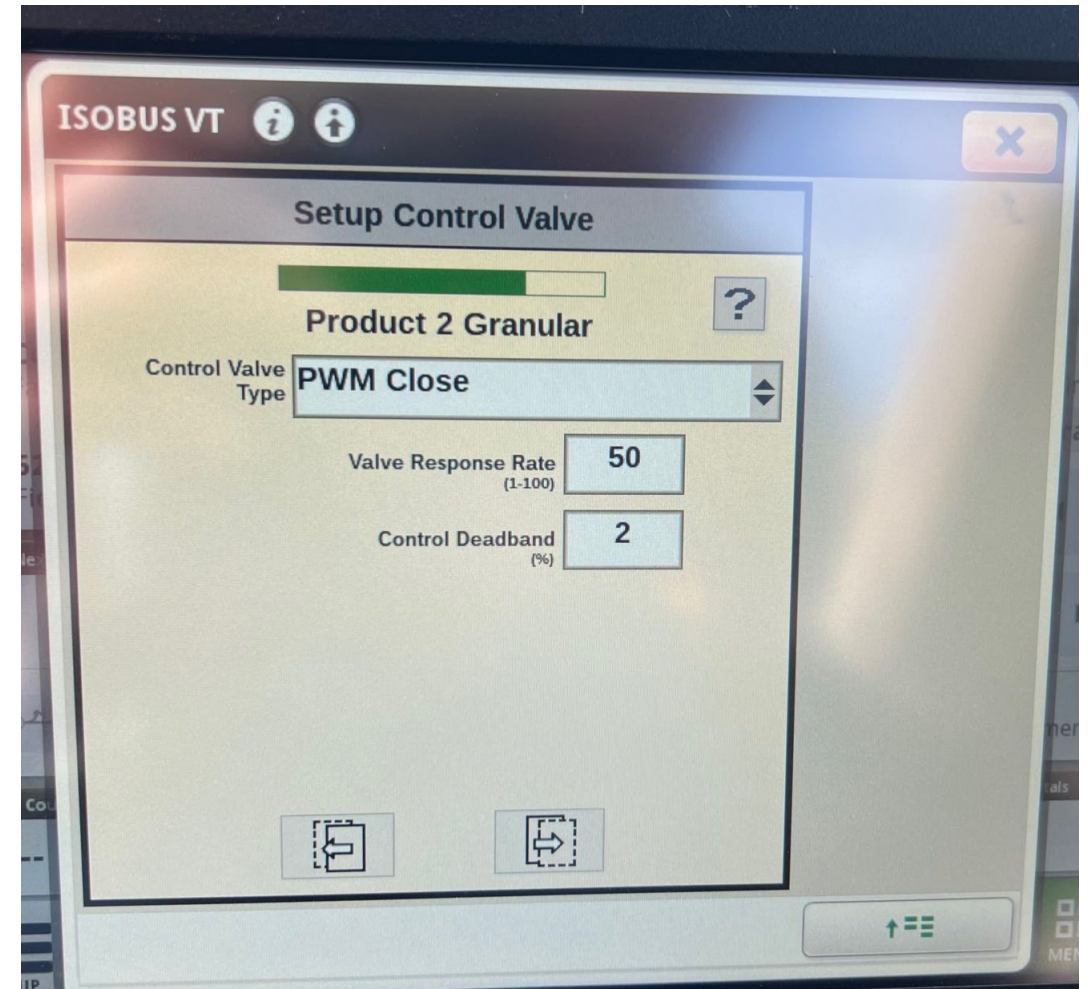
- *Under Setup Rates-Product 1 NH3 enter the desired Preset Rate Values*
- *Enter “5” for Rate Bump*
- *Enter “5” for Rate Smoothing and check Rate Smoothing Box*



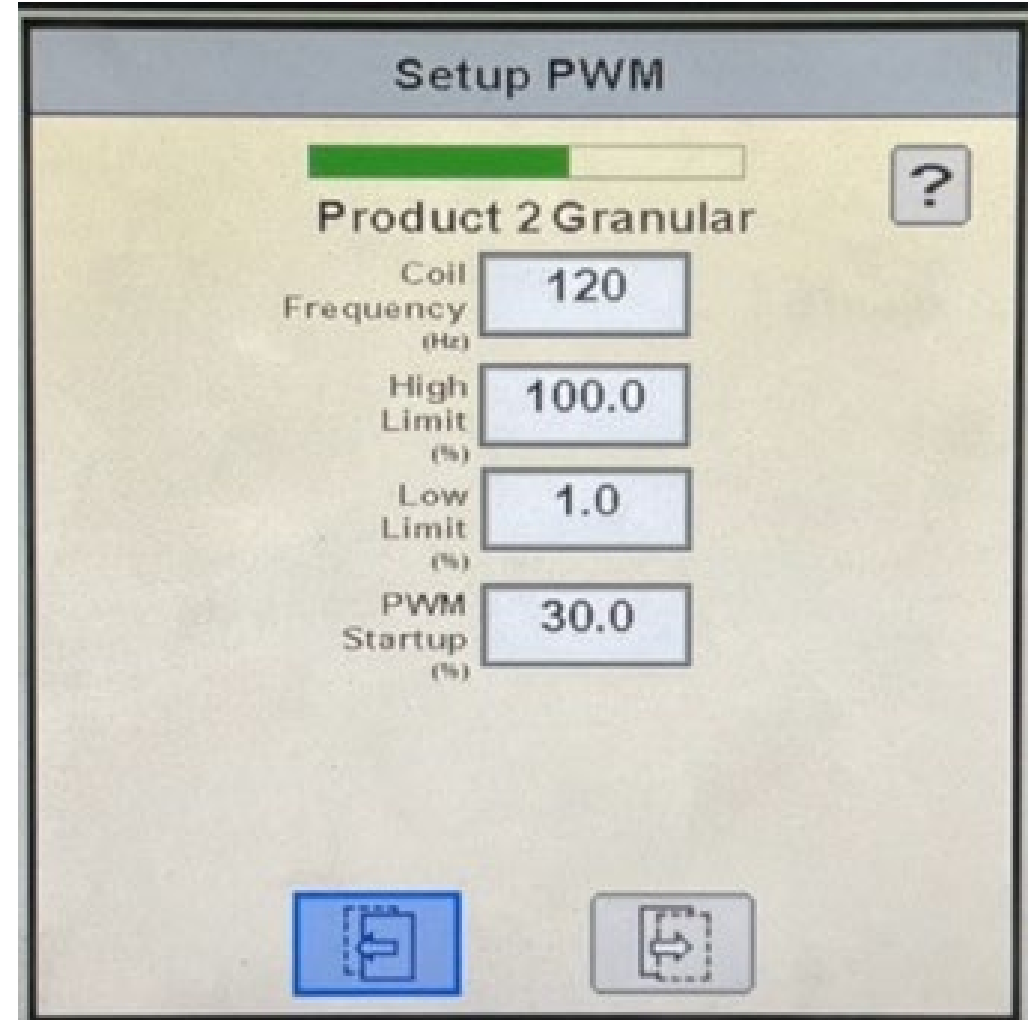
- *Under Setup Alarms-Product 1 NH3 enter the desired Off Rate Alarm and select the “Alarm?” Checkbox*



- *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 “360” 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 360

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

Low Bin Level Sensor

Alarm?

- *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 displays the 'Setup Rates' interface for 'Product 2 Granular'. At the top, there is a progress bar and a help icon. Below, the 'Preset Rate Values' are set to 50, 250, and 500. The 'Rate Bump' is set to 1, and the 'Rate Selection' is 'Predefined'. The 'Rate Smoothing' checkbox is checked, and the value is set to 3%. The 'Decimal Shift' is set to 0. A red arrow points to the 'Rate Smoothing' checkbox.

Field	Value
Preset Rate Values (lb/ao)	50, 250, 500
Rate Bump (lb/ao)	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*

The screenshot shows a software interface titled "Setup Alarms". At the top, there is a green progress bar and a question mark icon. Below this, the text "Product 2 Granular" is displayed. The interface contains two alarm settings:

- Off Rate Alarm (% off target rate):** A numeric input field containing the value "20". To its right is a checkbox labeled "Alarm?" which is checked. A red arrow points to this checkbox.
- Shaft Sensor Alarm:** An empty checkbox.

At the bottom of the screen, there are two navigation buttons: a white button with a left-pointing arrow and a blue button with a right-pointing arrow.

- *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 a control panel titled "Setup Control Valve". At the top, there is a green progress bar and a question mark icon. Below this, the text "Product 3 Granular" is shown. 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 square buttons with dashed borders and arrows, likely for navigation or confirmation.

- *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*

Setup PWM

Product 3 Granular

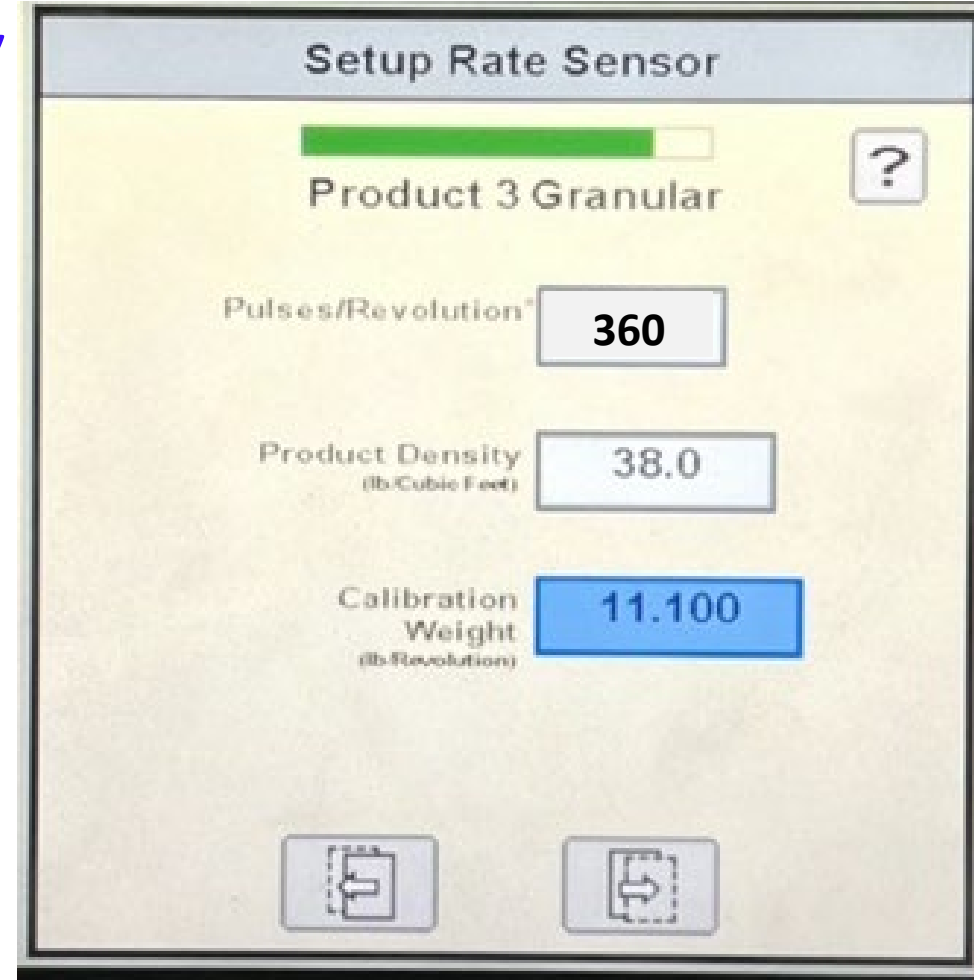
Coil Frequency (Hz) 120

High Limit (%) 100.0

Low Limit (%) 1.0

PWM Startup (%) 30.0

- *Under Setup Rate Sensor-Product 3 Granular*
- *Enter “360” for Pulses/Revolution*
- *Enter Correct Value for Product Density*
- *Enter Calibration Weight*
 - *Calibration Weight=.69375 x # of rows*



- *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) 9000

Current Level (lb) 0

Low Tank Level (lb) 0

Alarm?

Low Bin Level Sensor

Navigation icons: back, forward

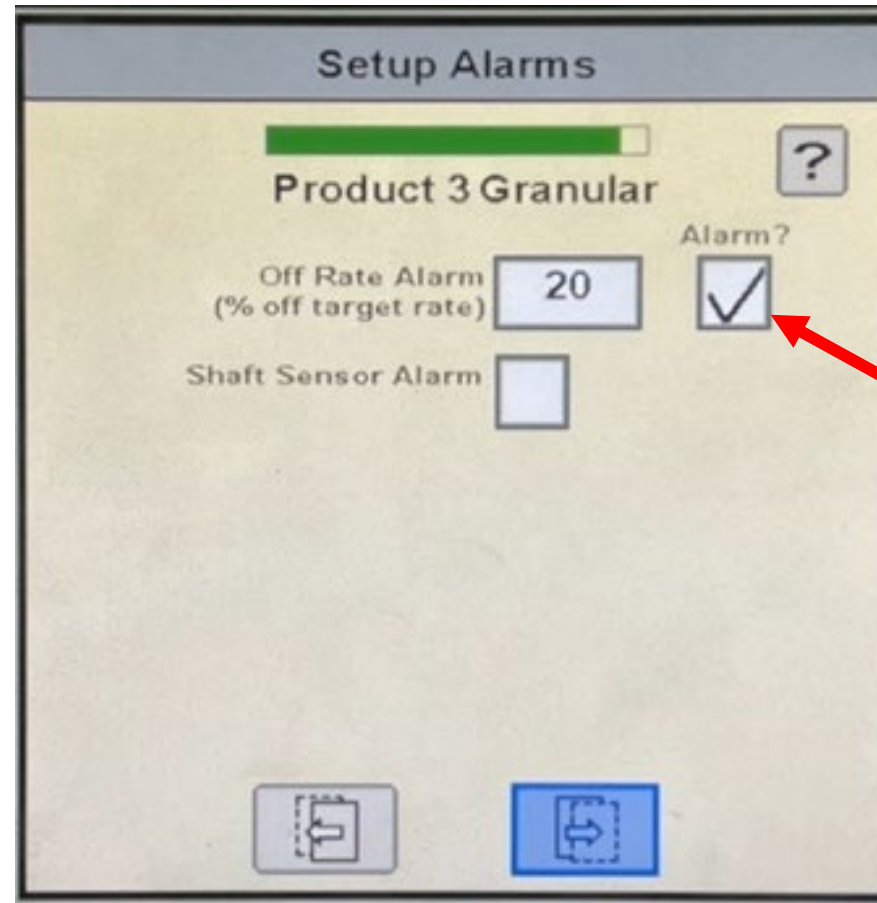
- *Under Setup Rates-Product 3 Granular*
- *Enter Desired Preset Rate Values*
- *Enter “1” for Rate Bump*
- *Enter “3” for Rate Smoothing*
- *Select “Rate Smoothing”
Checkbox*

The screenshot shows the 'Setup Rates' interface for 'Product 3 Granular'. At the top, there is a green progress bar and a question mark icon. Below this, the product name 'Product 3 Granular' is displayed. The interface is organized into several rows of controls:

- Preset Rate Values (lb/acc):** Three input fields labeled 'Rate 1', 'Rate 2', and 'Rate 3'. The values are 50, 250, and 500 respectively. The 'Rate 3' field is highlighted in blue.
- Rate Bump (lb/acc):** An input field with the value 0.
- Rate Selection:** A dropdown menu currently set to 'Predefined'.
- Rate Smoothing:** A checked checkbox followed by an input field containing the number 3 and a percentage sign (%). A red arrow points to this field.
- Decimal Shift:** A dropdown menu set to 0.

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 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*

