



6000 with X30 operational check

The following procedure will help with ensuring that a New 6000 series air-seeder with X30 functions properly.

This operational check should be completed on or before the first day of seeding.

Important note: the following settings are to test the majority of the functions, some of the settings and selections may not be how the customer chooses to operate their 6000 series seeder. You might have to put some of the settings back to the original state.



Ensure all connections are correct as outlined in the operators manual



When you power up the X30 you should get a green warning, this is a good indication that it has found the tank ECU.

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If something is not hooked up properly or if an incorrect option is selected you will get orange warnings as to what is incorrect. <

The screenshot displays the Bourgault software interface. At the top, a red banner features the 'BOURGAULT' logo. Below this, a navigation bar includes 'Seeder Control' and 'Guidance' tabs. A prominent orange warning box at the top center reads 'Warning! No ECU Communication - Cabin Switchbox'. The main display area is divided into several sections: a top-left section showing a tractor icon with '2309 rpm', a middle-left section with a 'Guidance' map, and a right section with system status information. The right section includes a 'Receiver Type' table, a 'Steering Controller' section, and an 'Implement' table. The bottom status bar shows various metrics including fuel flow (0.0 lb/ac), engine speed (0.0 rpm), time (07:21 pm), date (1 Nov), and speed (0.0 mph).

Receiver Type	AGI-3
Receiver Firmware Version	n/a
Receiver Serial Number	n/a
Receiver ID	n/a

Steering Controller	
Steering Controller Type	n/a
Steering Controller Firmware Version	n/a

Implement			
ECU	ECU Name	ECU Type	ECU Firmware Version
1	ISOBRIDGE	ISOBRIDGE	2.00-r07
2	MDECU1	MDECU	3.6.0
3	SECU1	SECU	N/A

Bottom status bar metrics:

- 4 0.0 lb/ac
- 5 0.0 rpm
- 07:21 pm
- 1 Nov
- No GPS
- 0.0 mph
- 0.0 ac



Bourgault icon

The screenshot displays the Bourgault software interface. On the left, a vertical toolbar contains several icons, with the Bourgault logo icon at the top, circled in blue. A blue arrow points from a text box labeled "Bourgault icon" to this circle. The main interface is divided into several sections. At the top, there's a "Seeder Controller" section showing a speedometer with values 2307 rpm and 2256 rpm, and a "Guidance" section below it. On the right, the "System Information" section is expanded, showing details for the GPS Receiver, Steering Controller, and Implement. The Implement section includes a table with ECU details. At the bottom, a status bar displays various real-time metrics like fuel consumption, time, and speed.

System Information

MAC Address 00:D0:C9:D6:10:F2
IP Address N/A

GPS Receiver

Receiver Type AGI-3
Receiver Firmware Version n/a
Receiver Serial Number n/a
Receiver ID n/a

Steering Controller

Steering Controller Type n/a
Steering Controller Firmware Version n/a

Implement

ECU	ECU Name	ECU Type	ECU Firmware Version
1	ISOBRIDGE	ISOBRIDGE	2.00-r07
2	MDECU1	MDECU	3.6.0

2307 rpm 2256 rpm
1-2
2307 rpm
0.0 lb/ac 0.0 rpm
07:20 pm 1 Nov
No GPS
5.0 mph
0.0 ac

Touch the Bourgault icon (top left corner) then drag it to the right. When everything is connected properly you will be able to view software and firmware versions.

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The screenshot displays the Bourgaault system interface. At the top left is the 'BOURGAULT' logo. The main interface is divided into several sections:

- Seeder Controller:** Shows a top-down view of a seeder with two wheels. The left wheel is labeled '2307 rpm' and the right wheel is labeled '2256 rpm'. Below the wheels is a '1-2' indicator.
- Guidance:** A section below the seeder view, currently showing a blank map with navigation icons.
- System Information:** A panel on the right containing:
 - GPS Receiver:**
 - Receiver Type: AGI-3
 - Receiver Firmware Version: n/a
 - Receiver Serial Number: n/a
 - Receiver ID: n/a
 - Steering Controller:**
 - Steering Controller Type: n/a
 - Steering Controller Firmware Version: n/a
 - Implement:** A table listing ECU details.

ECU	ECU Name	ECU Type	ECU Firmware Version
1	ISOBRIDGE	ISOBRIDGE	2.00-r07
2	MDECU1	MDECU	3.6.0

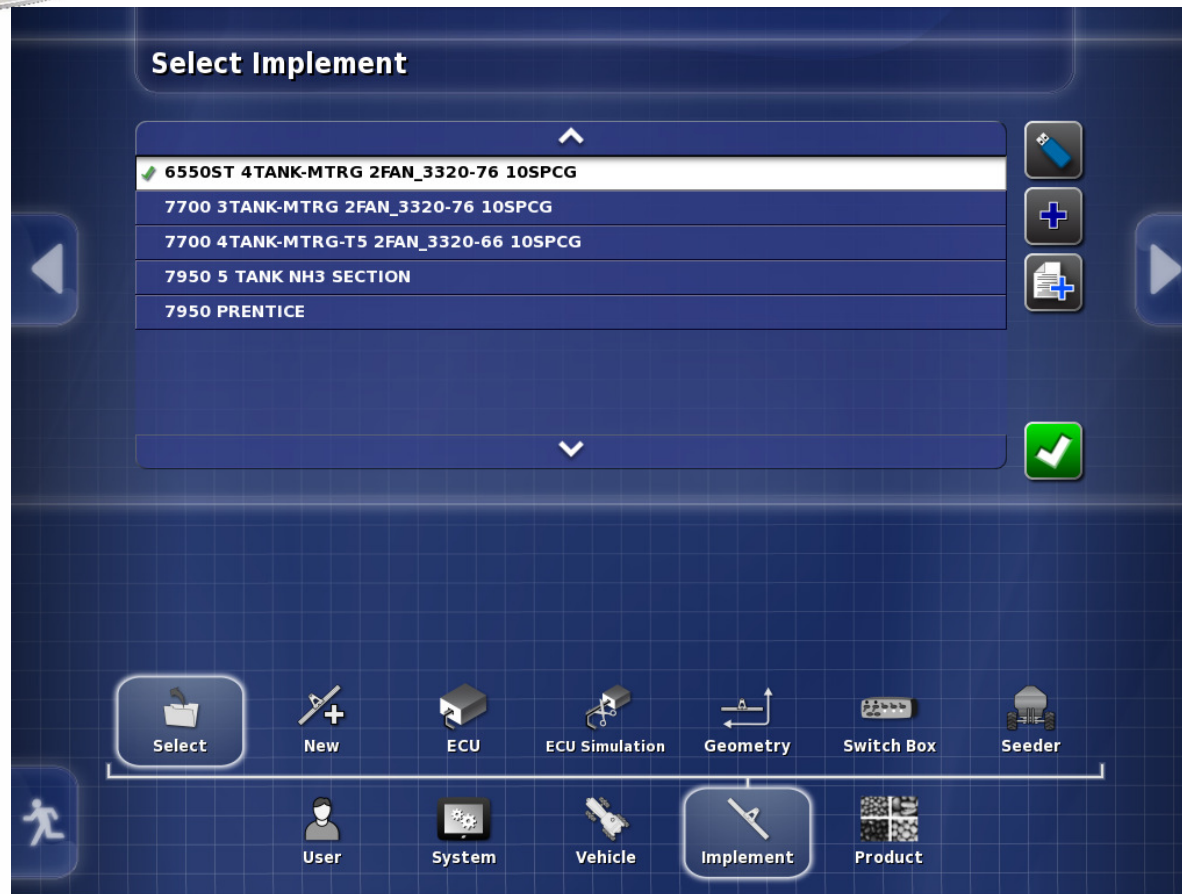
At the bottom of the screen is a status bar with various gauges and indicators. A wrench icon in the bottom left corner of this bar is circled in red, with a red arrow pointing to it.

Access the SETUP screen (wrench in bottom left corner)

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Once you have entered SETUP go to User/Units and the units should be Imperial(US), the Pressure Units in psi, the Area Units in ac, Dry Product Volume Units in Bushels and the Dry Density Units in Pounds Per Cubic Foot.



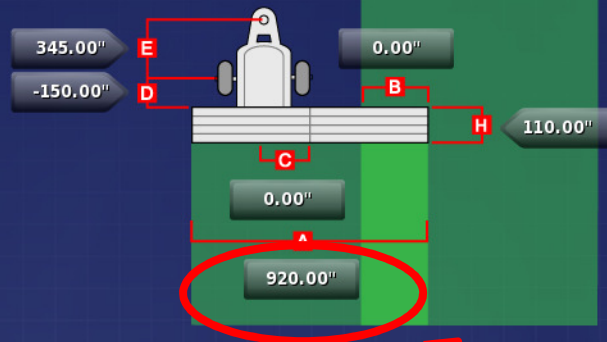
Next go to Implement/Select. Verify that the correct profile has been selected, if not follow the implement procedure outlined in the X30 manual.

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Implement Geometry - 6550ST 4TANK-MTRG 2FAN_3320-76 10SPCG

1

2



Full Width

Select



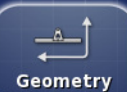
New



ECU



ECU Simulation



Geometry



Switch Box



Seeder



User



System



Vehicle



Implement



Product

Next go to Geometry and if section control is not used enter Implement width in inches.



Next go to Switch Box: Master switch: (Cabin Switchbox), Switch on Position: (Up), Cabin Switchbox: (6 Channel) and Calibration Switchbox: (Disabled)

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Next go to Seeder/Drive Setup then set up all tanks the same. (these settings are for a 6000 series tank. Drive Type: (Linear Actuator), Encoder Pulses/Revolution: (16), Tank Clutch Enabled

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Granular Product Setup

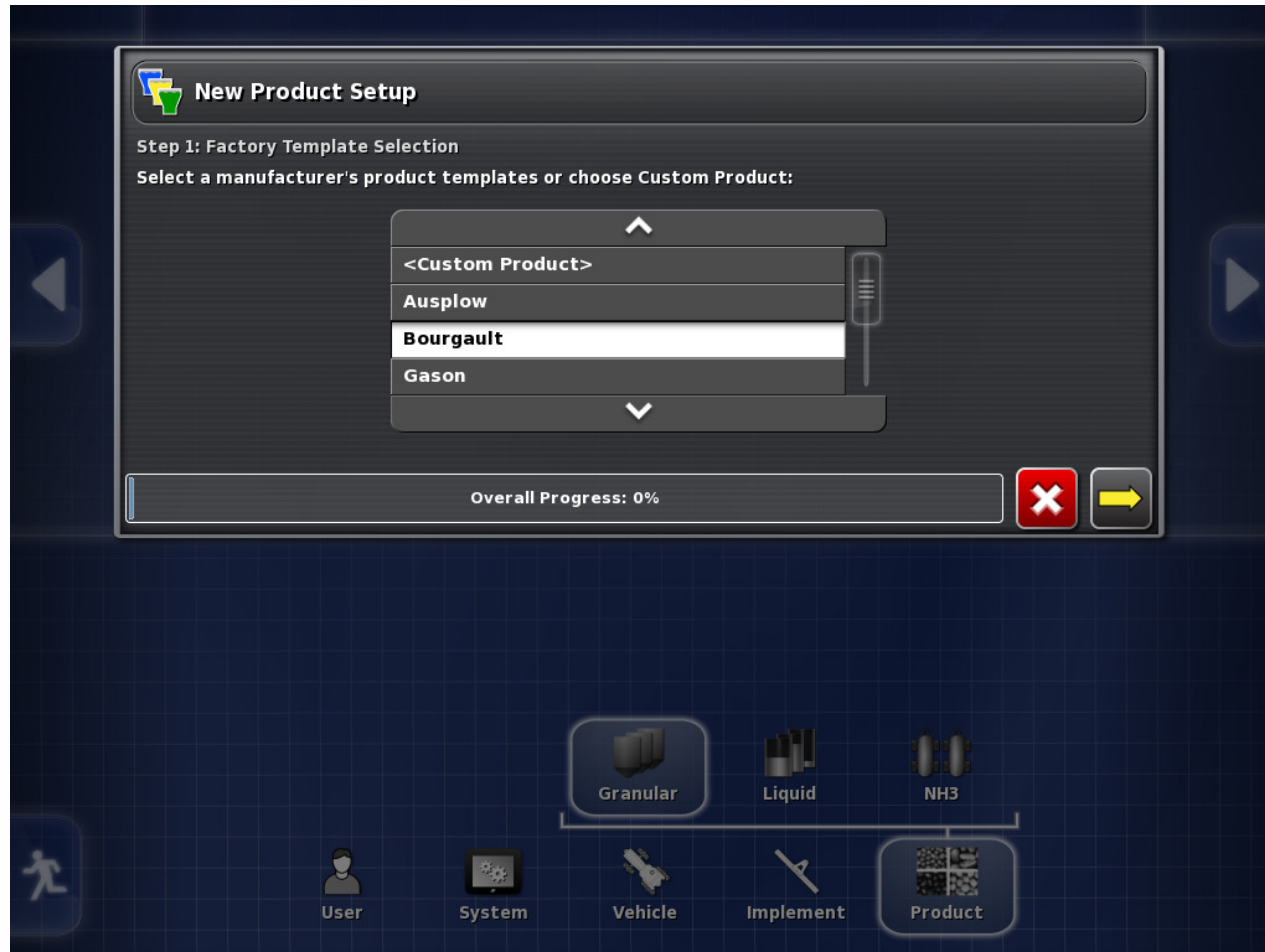
Product Name
New Product...
12-51-00

Show Calibration Factors

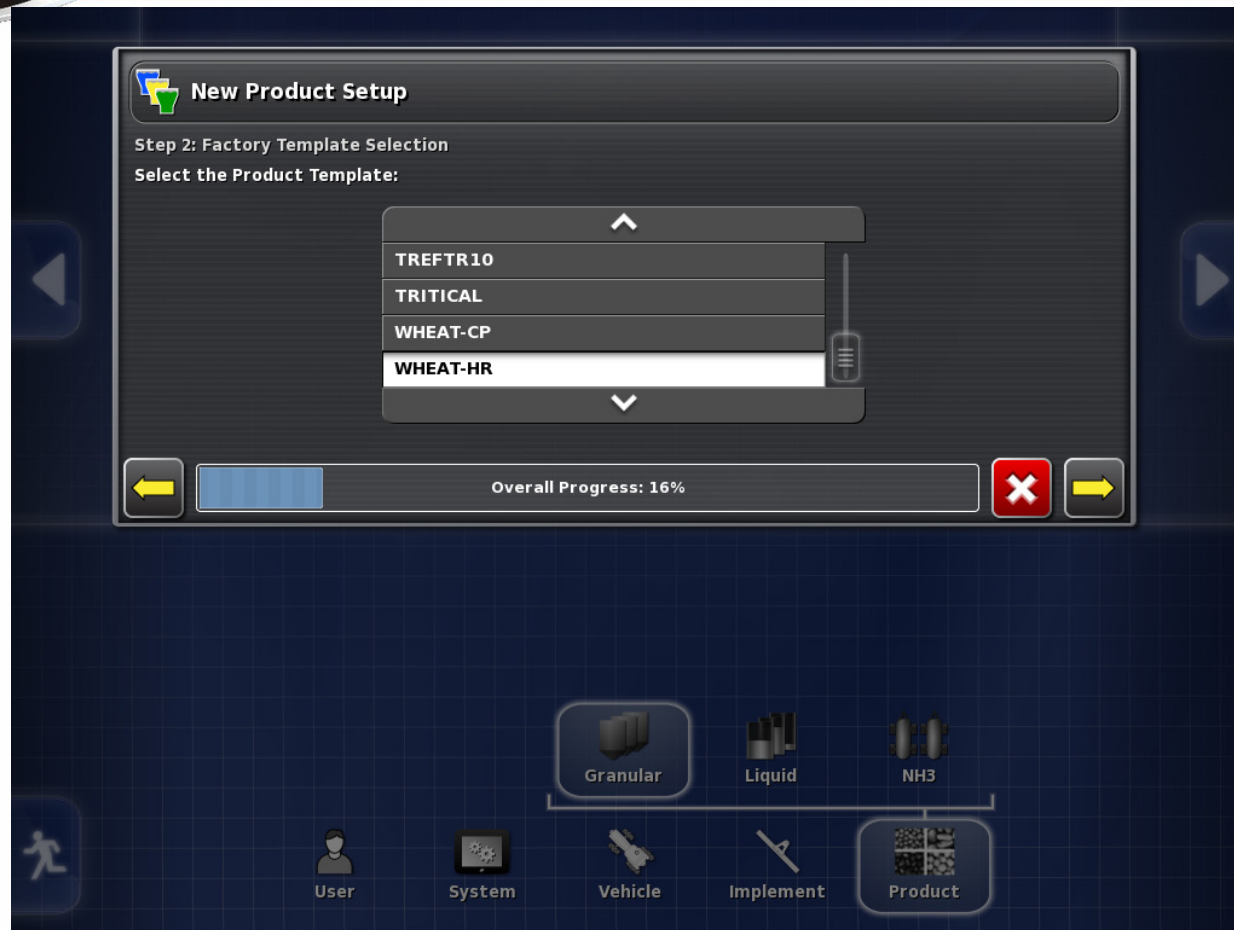
Granular Liquid NH3

User System Vehicle Implement Product

Next go to Products/Granular/New Product




Next Select Bourgault and touch the yellow arrow .








Next Select Wheat-HR and touch the yellow arrow.






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 **New Product Setup**

Step 3: Product Name
Specify a name for the product:

 PRODUCT NAME
WHEAT-HR

  Overall Progress: 33%  

 User  System  Vehicle  Implement  Product

 Granular  Liquid  NH3

Next Verify Wheat-HR and touch the yellow arrow.

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Granular Product Setup

Product Name

New Product...

12-51-00

WHEAT-HR



PRODUCT TYPE
Granular



PRODUCT DENSITY
51.82 lb/ft³



PRODUCT RATE INCREMENT
10.00 lb/ac



PRODUCT RATE PRESET 1
120.00 lb/ac



PRODUCT RATE PRESET 2
350.00 lb/ac

Show Calibration Factors



Granular



Liquid



NH3



User



System



Vehicle



Implement



Product

Enter **Product Rate Increment: (10)**, **Product Rate Preset 1 : (normal seeding rate)**, **Product Rate Preset 2 : (secondary seeding rate)** the high rate is to check max shaft rpm later

Granular Product Setup

Product Name
New Product...
12-51-00

Show Calibration Factors

Granular Liquid NH3

User System Vehicle Implement Product

Next select all of the products that will be seeded to create a list for the seeding year.

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Granular Product Setup

Product Name

New Product...

12-51-00

WHEAT-HR



PRODUCT TYPE
Granular



PRODUCT DENSITY
51.82 lb/ft³



PRODUCT RATE INCREMENT
10.00 lb/ac



PRODUCT RATE PRESET 1
120.00 lb/ac



PRODUCT RATE PRESET 2
350.00 lb/ac

Show Calibration Factors



User



System



Vehicle



Implement



Granular



Liquid



NH3



Product

Touch the Running Man in the lower left corner to return to the seeder page.

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System Information

Console

Software Version	3.16.36bg
BIOS Firmware Version	CSB-DB30 BIOS V1.10
Power Controller Firmware Version	1.0.5
Lightbar Firmware Version	1.0.2
Touchscreen Firmware Version	451.16
MAC Address	00:D0:C9:D6:0E:18
IP Address	N/A

GPS Receiver

Receiver Type	Other
Receiver Firmware Version	n/a
Receiver Serial Number	n/a
Receiver ID	n/a

Steering Controller

Steering Controller Type	N/A
Steering Controller	N/A

Bottom Gauges:

1 3035 rpm	1 0.0 lb/ac	2 0.0 lb/ac	4 0.0 lb/ac
2 2944 rpm	0.0 rpm	0.0 rpm	0.0 rpm

Speedometer: 0.0 mph

Select the Seeder controller tab on the left side of the screen.

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The screenshot displays the Bourgault system interface. On the left is a vertical sidebar with various icons. The main area is divided into two sections. The top section, titled 'Seeder Controller', shows a graphical representation of a seeder with two rows of wheels. The top row displays '2949 rpm' and '2985 rpm'. Below this, a red arrow points from a text box at the bottom of the image to the 'Seeder Controller' tab. The bottom section, titled 'System Information', contains three expandable panels: 'Console', 'GPS Receiver', and 'Steering Controller'. The 'Console' panel is currently expanded, showing the following data:

Console	
Software Version	3.16.36bg
BIOS Firmware Version	CSB-DB30 BIOS V1.10
Power Controller Firmware Version	1.0.5
Lightbar Firmware Version	1.0.2
Touchscreen Firmware Version	451.16
MAC Address	00:D0:C9:D6:0E:18
IP Address	N/A

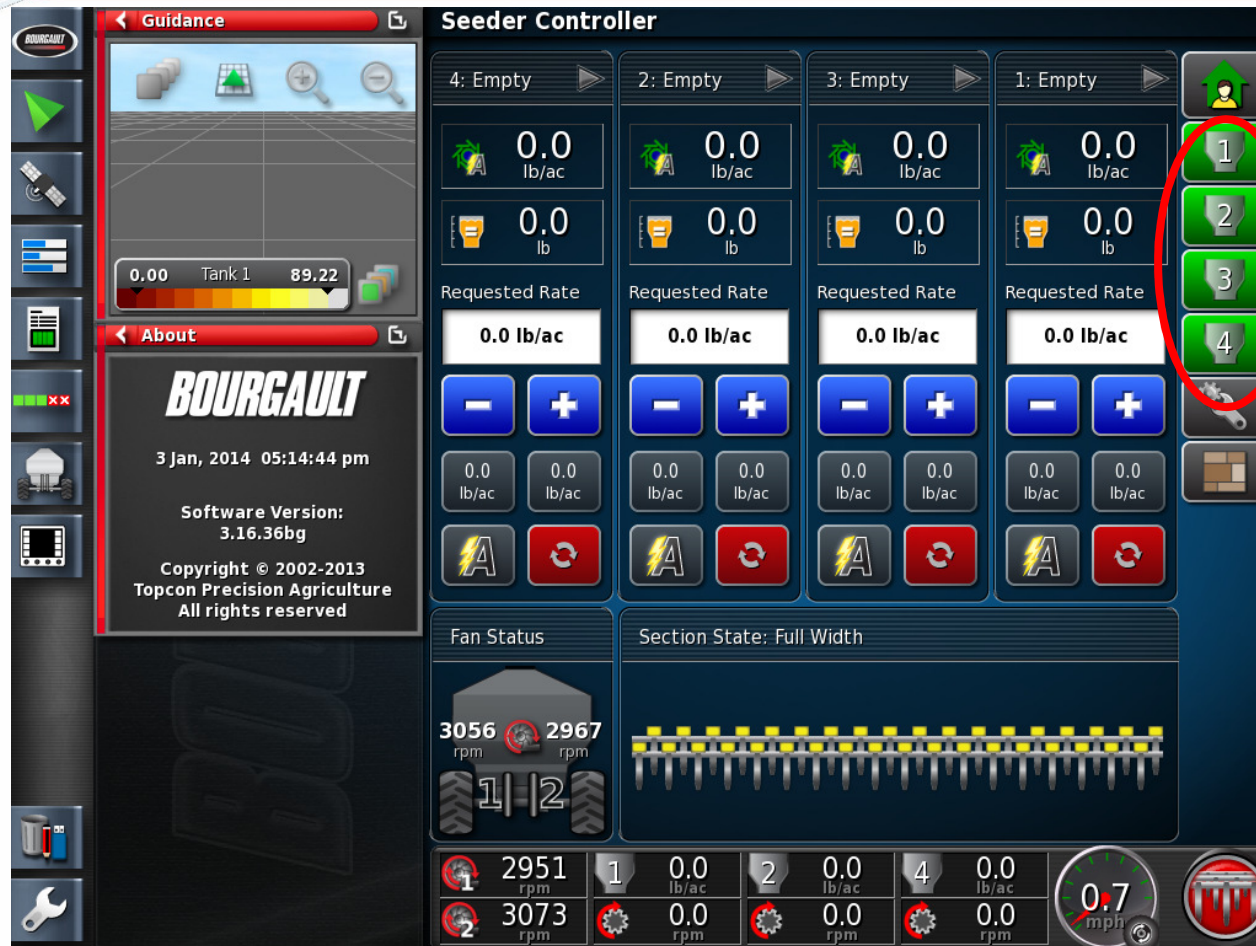
Below the 'Console' panel is the 'GPS Receiver' panel, which is currently collapsed. At the bottom of the 'System Information' section is the 'Steering Controller' panel, also collapsed. The bottom of the interface features a status bar with a grid of data points and a speedometer on the right.

Row	Wheel	Value	Unit
1	1	2994	rpm
	2	3015	rpm
2	1	0.0	lb/ac
	2	0.0	lb/ac
3	1	0.0	lb/ac
	2	0.0	lb/ac
4	1	0.0	lb/ac
	2	0.0	lb/ac

On the right side of the status bar is a speedometer showing '0.0 mph'.

Drag the Seeder Controller tab to the main page.

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Select the tanks to be tested on the right side then expand them one at a time to select the product to be seeded. We will use Wheat HR for our example.

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Expand tanks by touching arrow

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Touch Select Product

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Touch PRODUCT NAME and select WHEAT-HR

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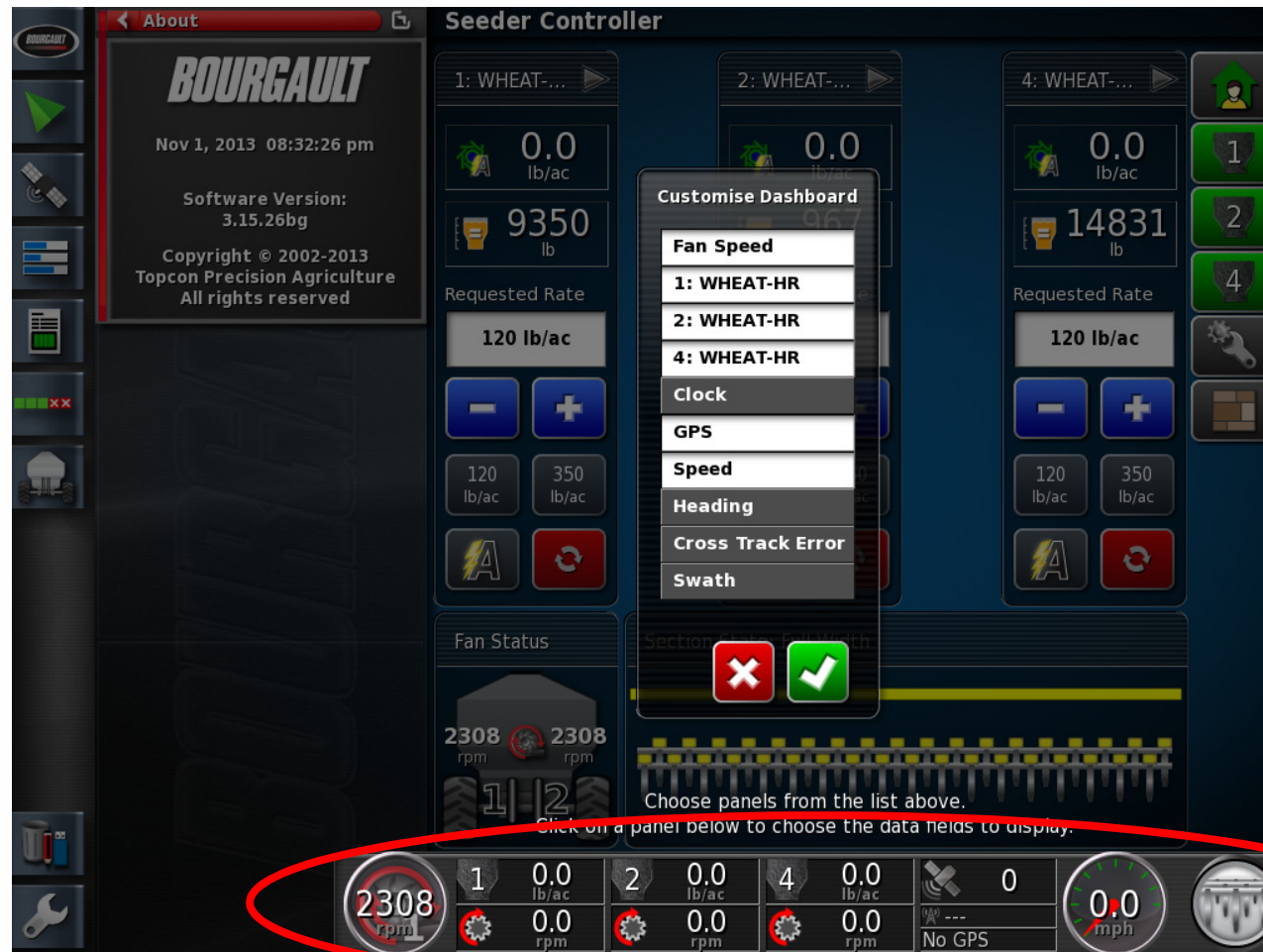
Select Wheat-HR

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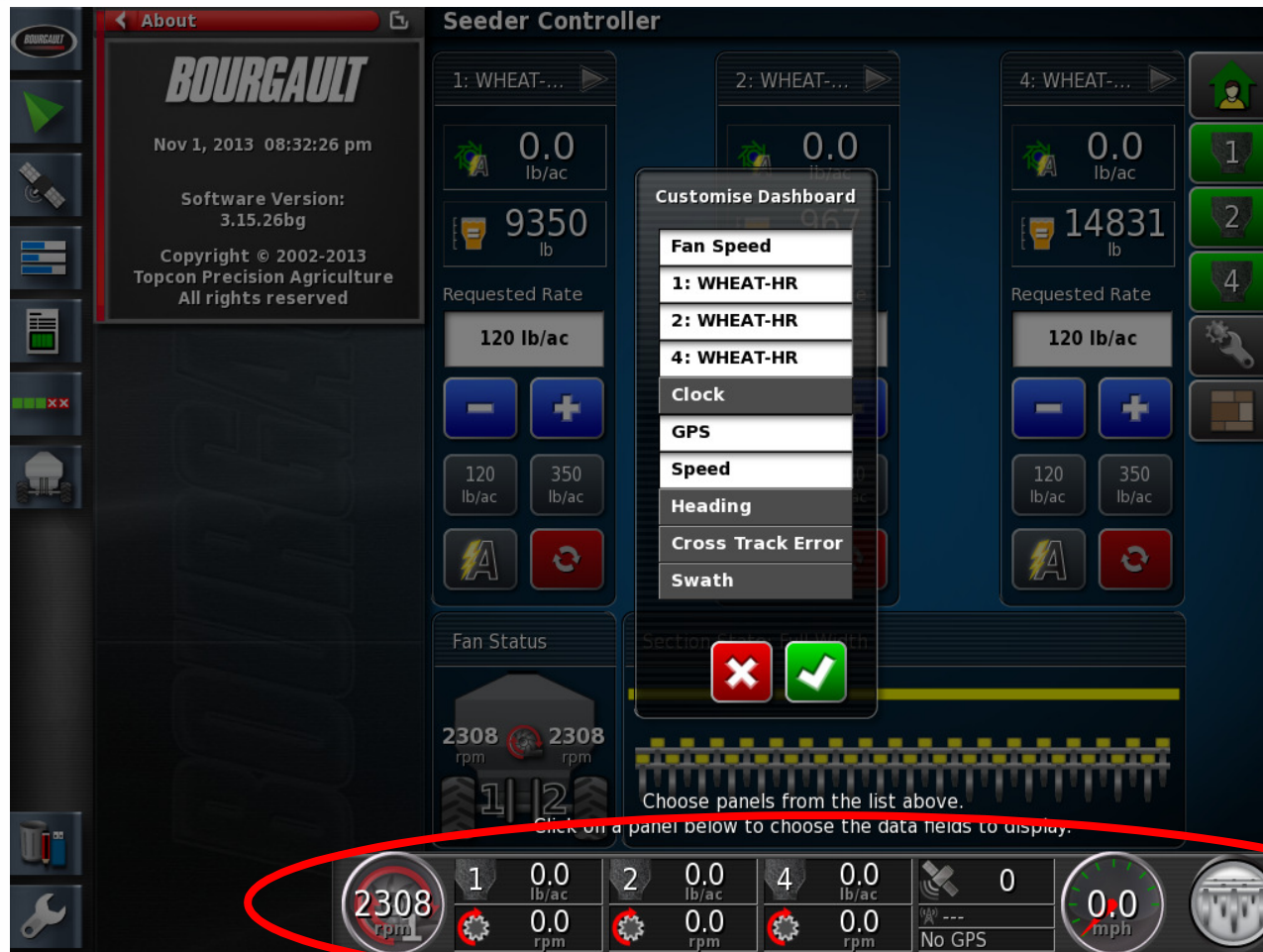
Verify the Preset Rates and Increments.

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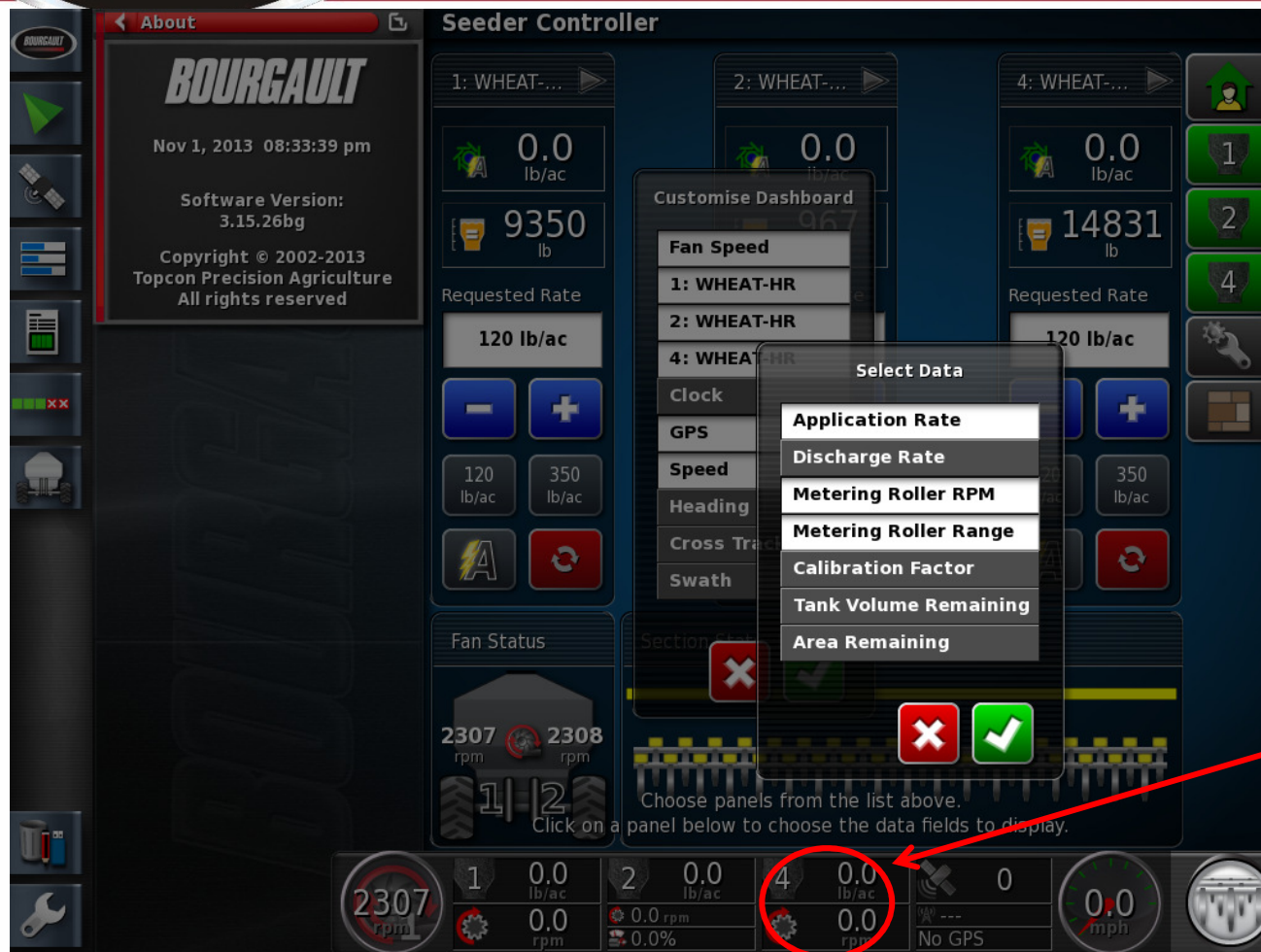
The next pages outline the procedure to customize the dashboard. For testing the dashboard should be set up to display fan speeds and rpm for each metering auger.

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Touch anywhere on the dashboard to
customize the display

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Example; touching Tank 4
Brings up another menu.

You can customize each part of the dashboard display by touching on each item when the main dashboard menu is displayed.

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Touch on the wrench located on the right side of the screen to enter calibration.

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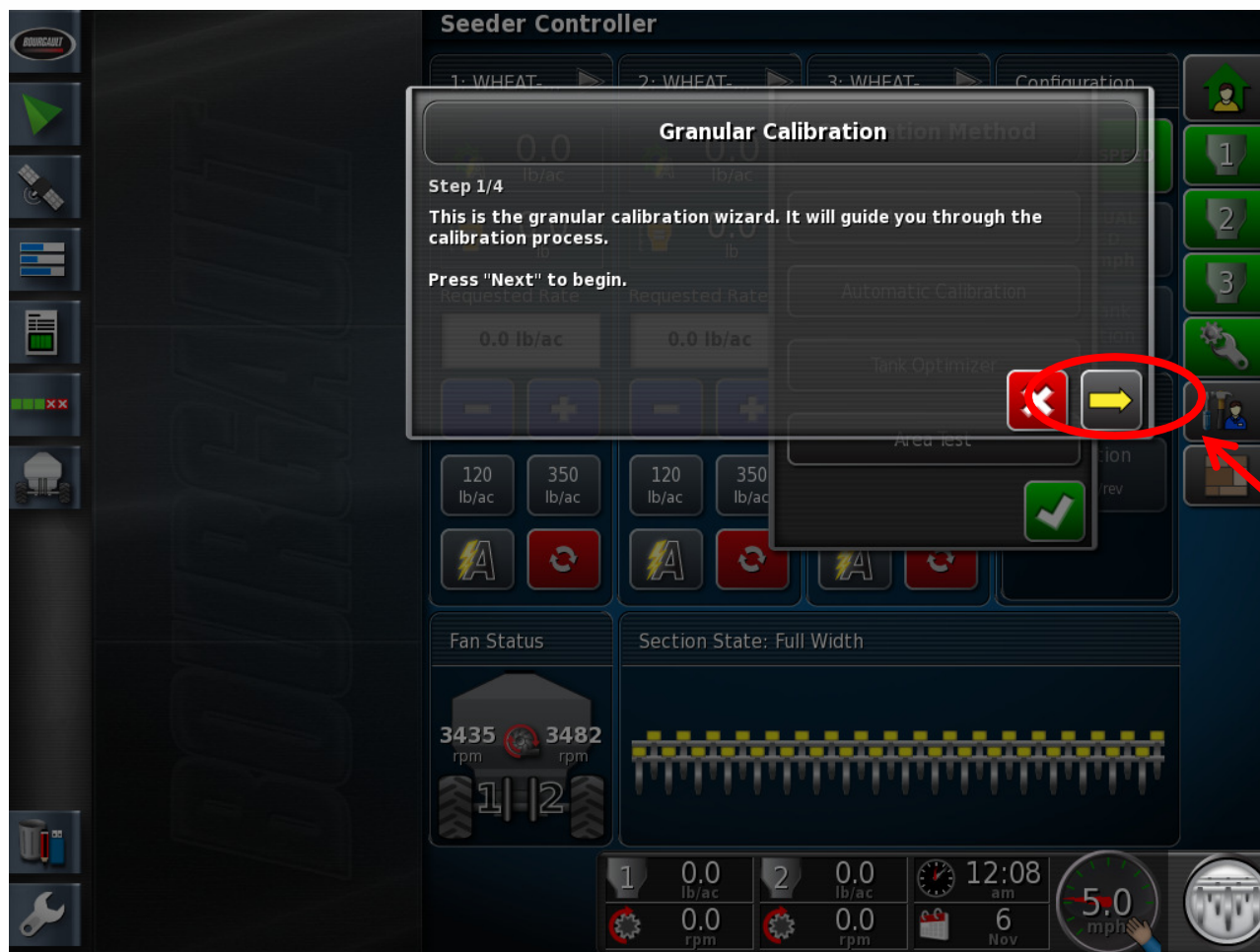
Enter a MANUAL SPEED (use customers average seeding speed) then select
MULTI-TANK CALIBRATION

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Select Automatic Calibration

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Press the Yellow arrow

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Seeder Controller

1: WHEAT- 2: WHEAT- 3: WHEAT- Configuration

Granular Calibration

Step 2/4
Please activate the tanks and Master Switch to run the seeder.
When sufficient weight is obtained, turn OFF all granular tanks or the Master Switch and press "Next".
Using a Manual Speed of 5.0 mph.

Bin #	State	Rate	Revs	Estimated Weight	%	
1		0.0 lb/ac	---	---	---	Reset
2		0.0 lb/ac	---	---	---	Reset
3		0.0 lb/ac	---	---	---	Reset

← Status Section State: Full Width 0 X →

3473 rpm 3503 rpm

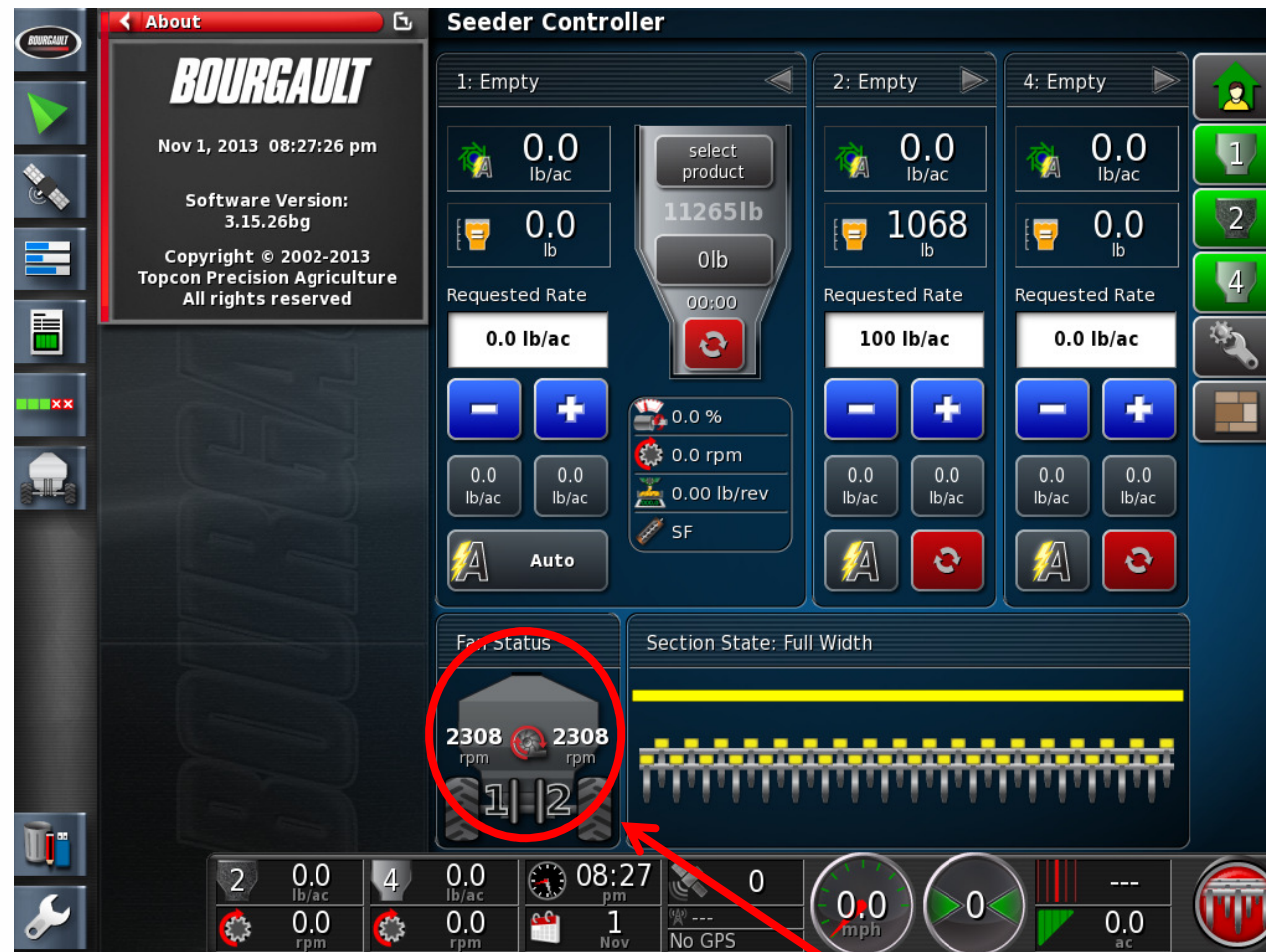
1 2

1 0.0 lb/ac 2 0.0 lb/ac 12:08 am 6 Nov 5.0 mph

0.0 rpm 0.0 rpm

Turn on Tank clutches to be Calibrated

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Engage fan hydraulics with tractor remotes and verify that fan speed is displaying.

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We would like the calibration drive to run the same speed as the Manual Speed that is set up for product calibration, you will need a second person in the cab to watch the ground speed display. For the example shown above the Manual Speed is 5mph



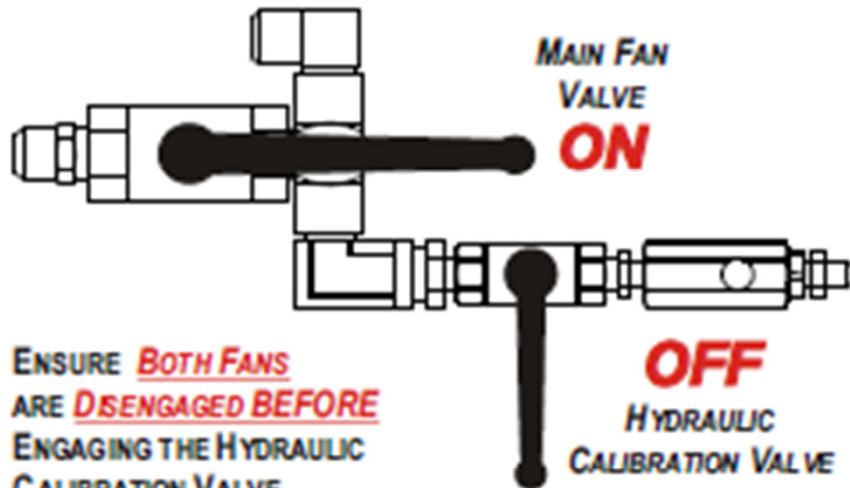
BOURGAULT



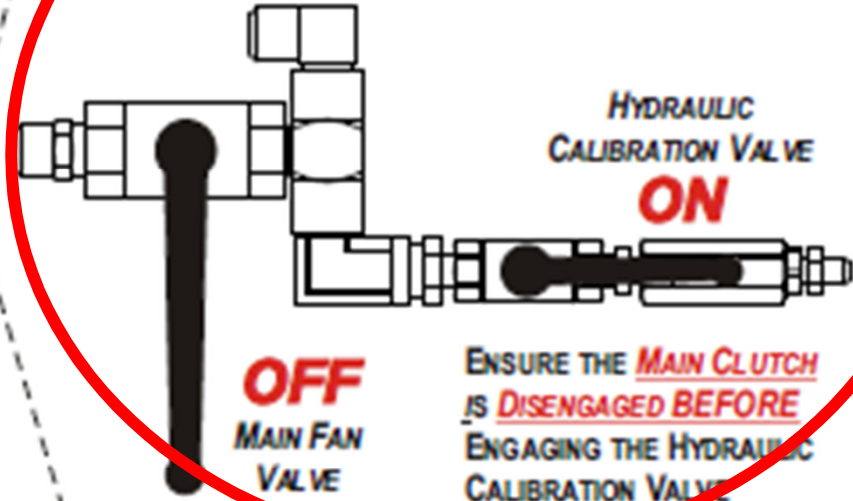
You will have to go into Setup to change your speed source from the seeder to adjust the calibration motor needle valve. Touch Implement / Seeder / Speed Source and select Wheel Sensor. Once completed change this back to Speed from GPS.

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TO RUN FAN OR LOAD/UNLOAD AUGER



TO RUN HYDRAULIC CALIBRATION

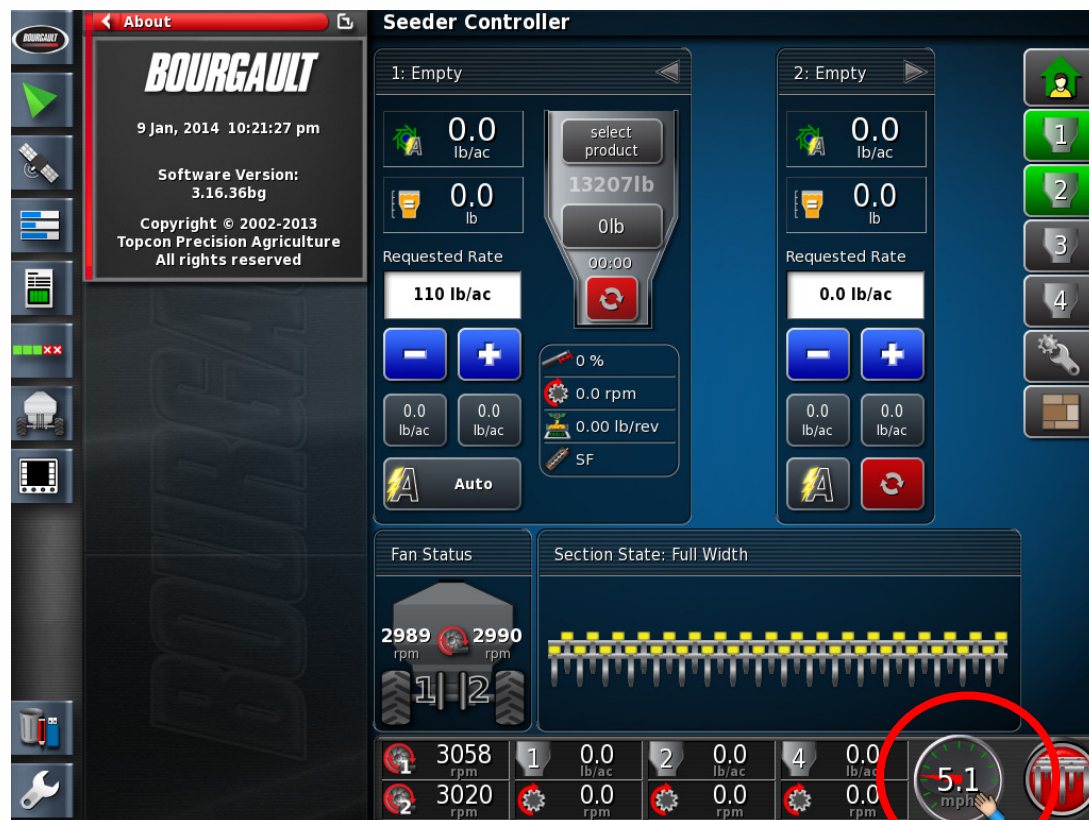
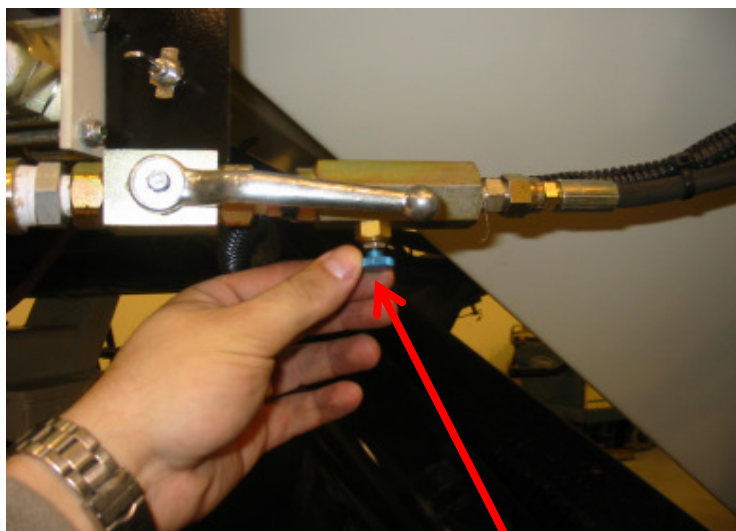


TO OPERATE THE LABELED SYSTEMS, PLACE EACH OF THE VALVE HANDLES IN THE SHOWN POSITIONS.
ILLUSTRATIONS FOR THE FAN AND HYDRAULIC CALIBRATION VALVES ARE SHOWN WITHOUT A LIFT SYSTEM INSTALLED.

CONTROL VALVE CONFIGURATIONS

Tow Behind
3903-36-R01

Close valves to fans and load/unload auger to divert oil to calibration circuit.



Open the calibration valve and adjust needle valve till the speed is close to the manual speed

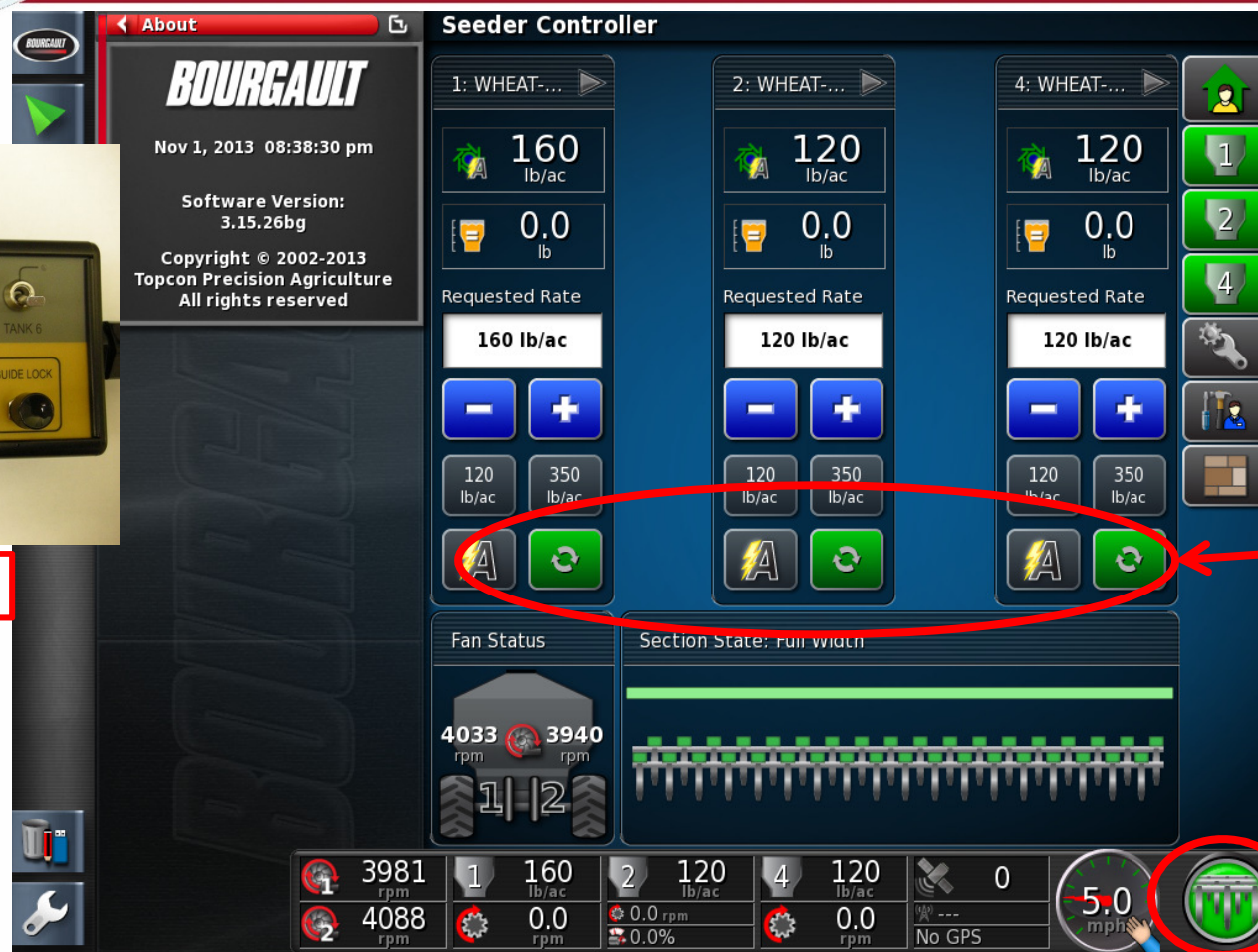
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Go to the X30 and enter Configuration screen by touching the RH wrench symbol and select MANUAL SPEED as the speed source.



6 channel switchbox



TANK indicators

MASTER indicator

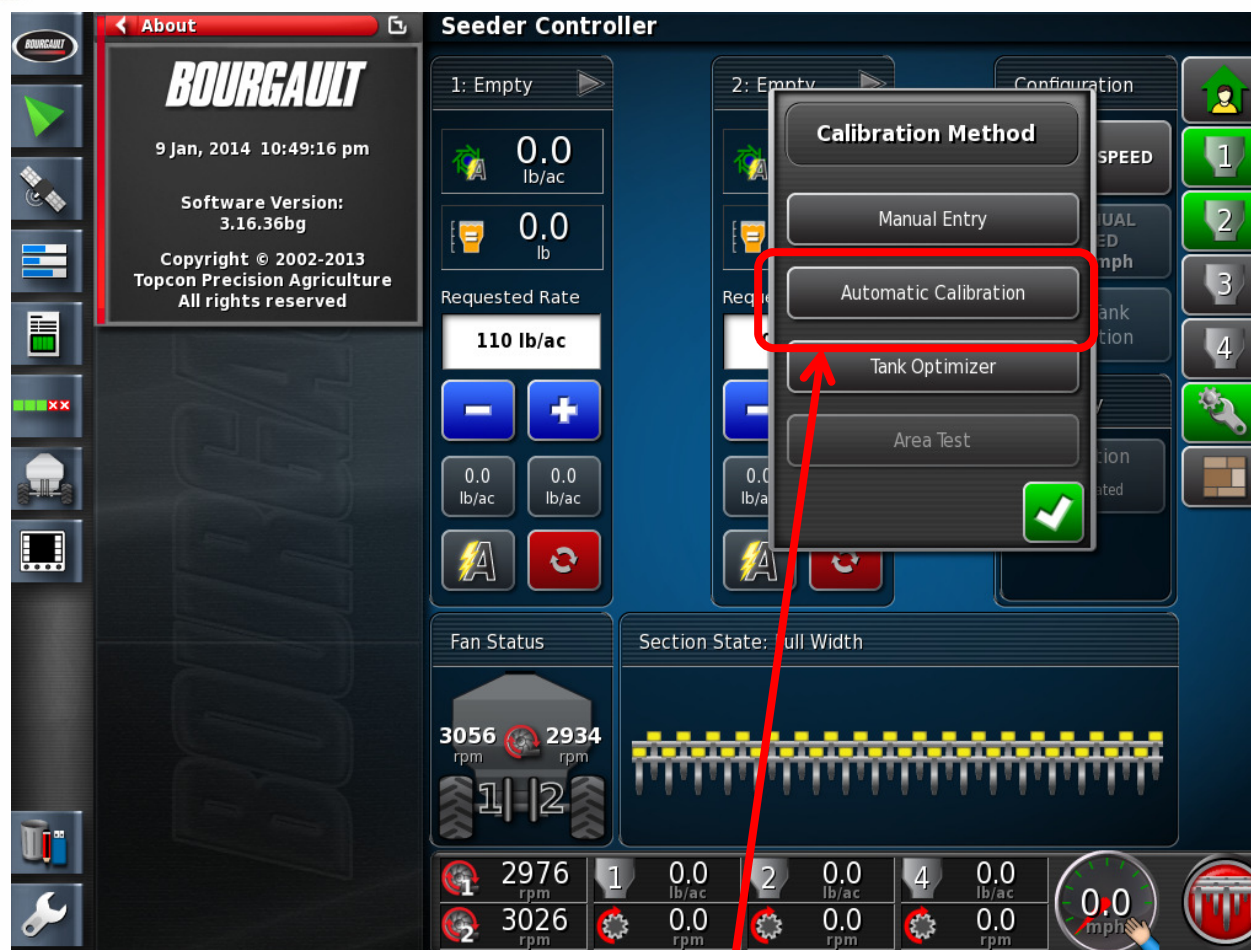
Cycle the Master and Tank switches using cabin 6 channel switchbox on and off one at a time to verify function.

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Enter Calibration by touching the wrench on the right side.

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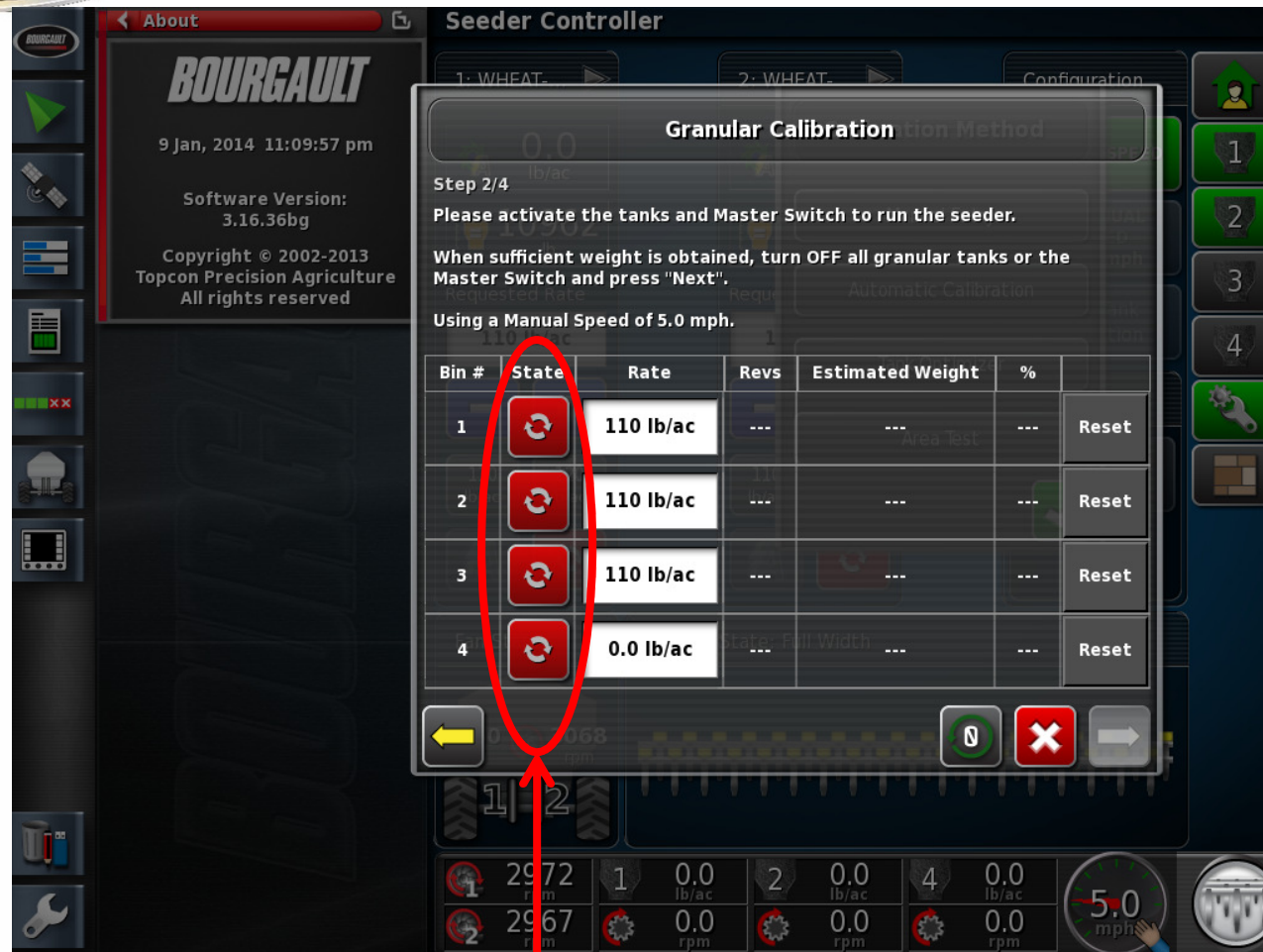
Select Automatic Calibration

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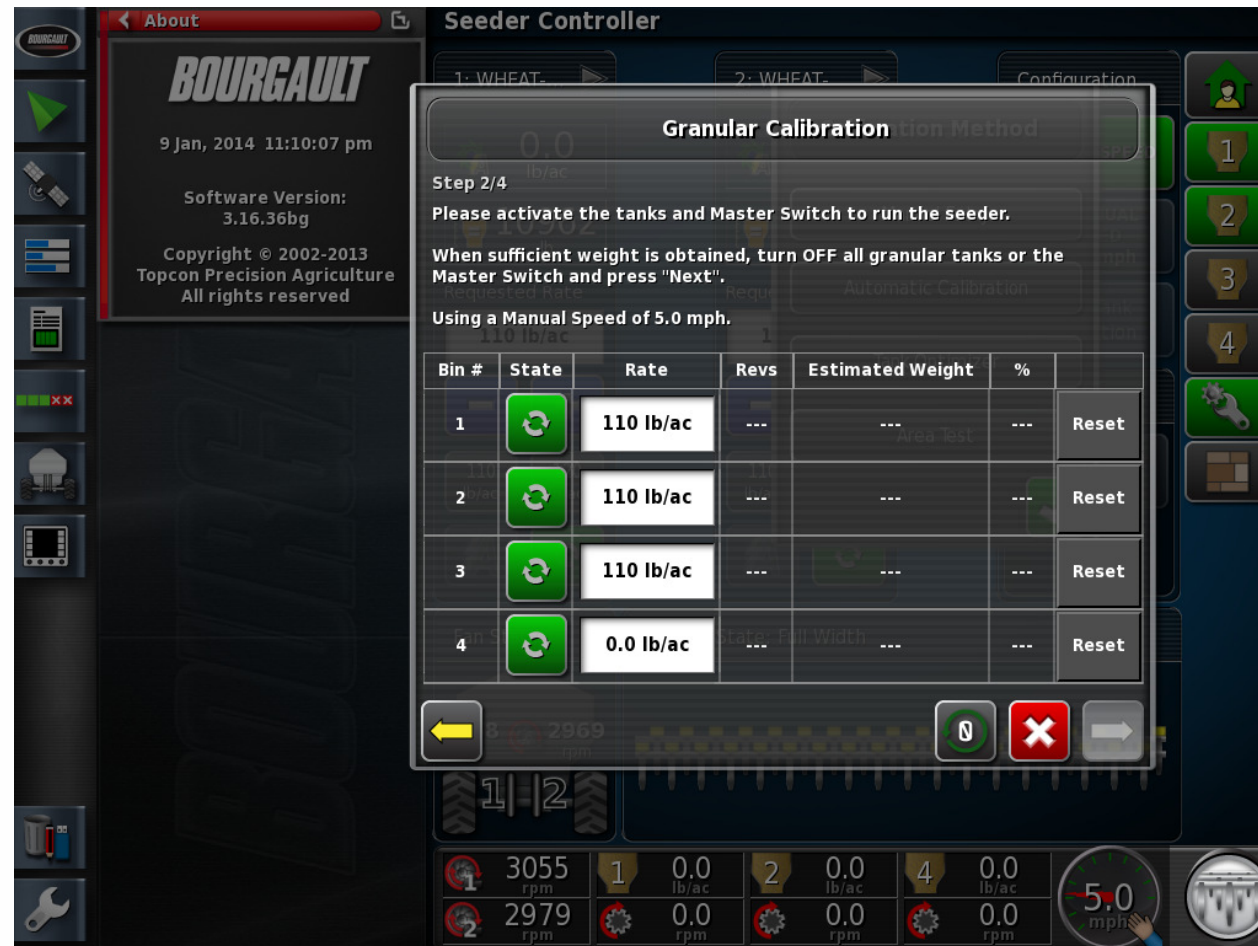
Press the yellow arrow to complete a Stationary Calibrations .

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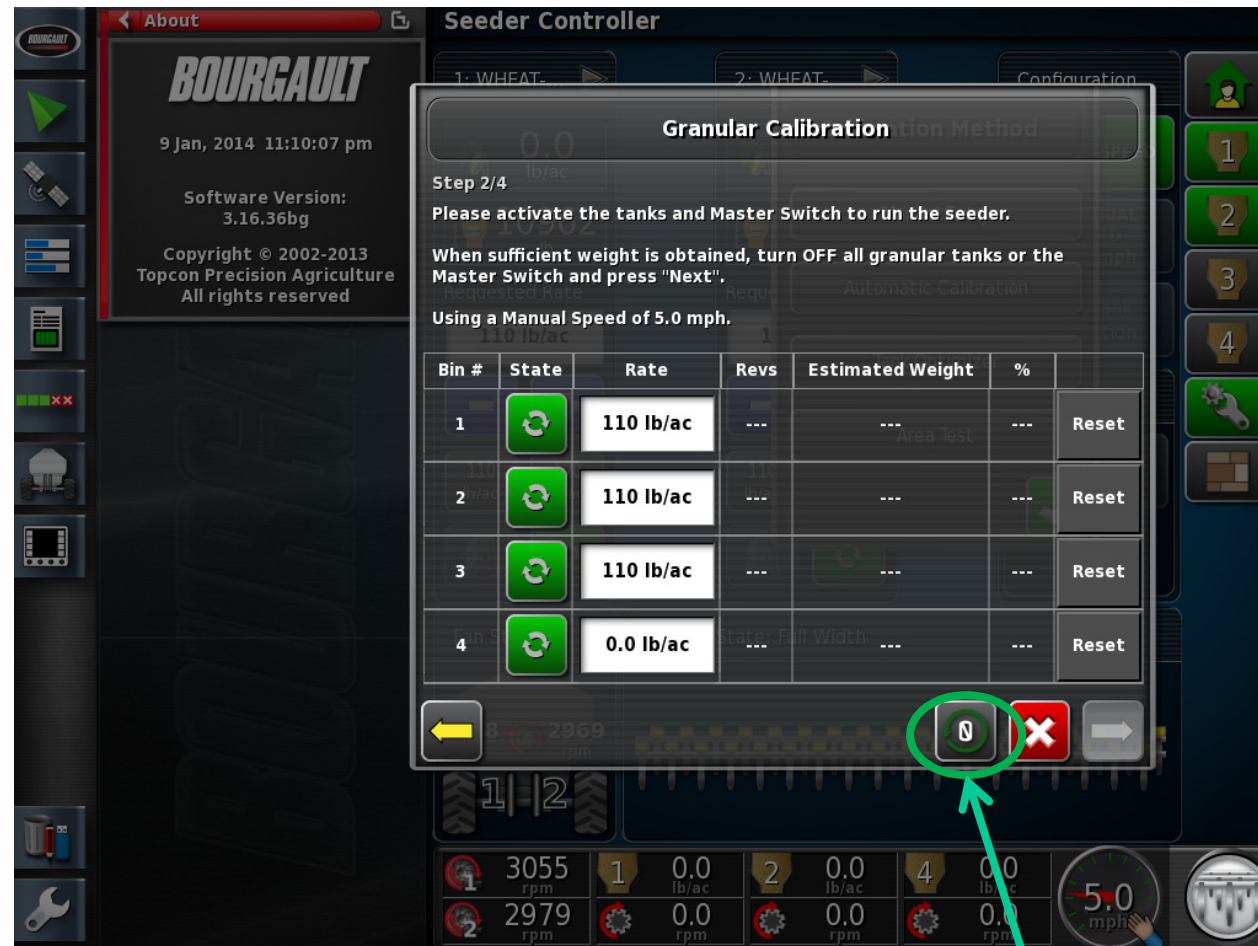
Select the tanks to be calibrated by touching the Red Icon under the State column. .

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For this test select all of the tanks, the indicators will be green. You are ready to go back to the tank and run the calibration motor and all of the metering augers.

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After the augers have run it will display Revs and an Estimated Weight.
To reset the Revs and Estimated Weight touch the **green** icon.



See operators manual for step by step procedures to calibrate a 6000 series air-seeder.

You can also visit the Bourgault web site for a detailed calibration video.



- If the unit is equipped with NH3 or Liquid please see test procedure in the Service& Parts section of the Bourgault Web site under Frequently asked Questions.
- Run the load / unload auger to verify function of valves and motor.
- If equipped with cameras they should be hooked up and checked. (see ASA Camera Manual)
- If the unit is equipped with Blockage monitoring you will be required to be connected to the implement to complete a Detect and Assign Sensors.
- The final thing to verify is that GPS is coming into the X30 from the tractor receiver. (See Service and Parts section of the Bourgault Web Site under Frequently Asked Questions)

<http://www.bourgault.com/ServiceParts/FrequentlyAskedQuestions/FAQsX30SeederController/GPSSignal/tabid/597/language/en-US/Default.aspx>