

# READY TO HARVEST and CALIBRATION GUIDE

S700 Series  
X9 Series



**KIBBLE**  
EQUIPMENT



JOHN DEERE

Your Farm. Your Future. Our Focus.



# Contents

S700 Series Hydro Handle	4
S700 Series Armrest	6
Header Calibration	8
Header Setup	10
Setting Header Resume: 3-2-1 Buttons	12
Setting Hydraflex Pressure	13
Work Setup & Overlap Control	14
Harvest Settings	16
Combine Advisor	18
Interactive Combine Adjustment	20
Fine Tuning Auto Maintain	22
Automation	23
Yield Calibration Procedure	24
Moisture Sensor Calibration	25
Mass Flow Vibration Calibration	26
Active Yield	27
Manual Yield Calibration	29
Autotrac Guidance	33
Autotrac Rowsense	34
Notes	35

# S700 Series HYDRO HANDLE

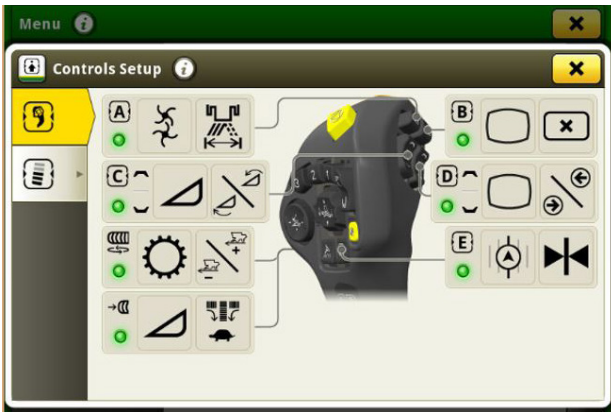


- a) Header up/down and tilt left/right
- b) Reel up/down & fore/aft OR FeederHouse Speed & Deck Plates
- c) Header resume switches 3/2/1
- d) Unloading auger in/out/engage
- e) AutoTrac resume button
- f) Header quick stop
- g) Programmable buttons can be customized by operator through the 4600 display:
- FeederHouse fore/aft
  - Draper belt speed
  - Reel Dial-A-Speed
  - Residue direction swap
  - Center Track
  - Swap Track
  - AutoTrac Shift
  - Close page overlay
  - Home page selection
  - HarvestSmart Resume

# S700 Series HYDRO HANDLE



To set the programmable buttons go to **MENU** then **MACHINE SETTINGS** and **CONTROLS SETUP**. From this page the controls and hydro handle functions can be set.



1) Encoder button is programmable  
Scrolling Functions:

- Home Page Selection
- ProDrive Speed Shift
- AutoTrac Shift
- Feederhouse Fore/Aft (if equipped)

Pressing Functions:

- Close Page Overlay
- Residue Direction Swap
- Center & Swap Track

# S700 Series ARMREST

Header Height/Hydra Flex  
Pressure Control

Header  
Engage

Separator  
Engage

Dial-A-Speed  
(Reel Speed  
Control)

Lock Hydro  
Handle

Engine Speed

Transport  
Lock

Transmission  
Gear

Parking Brake

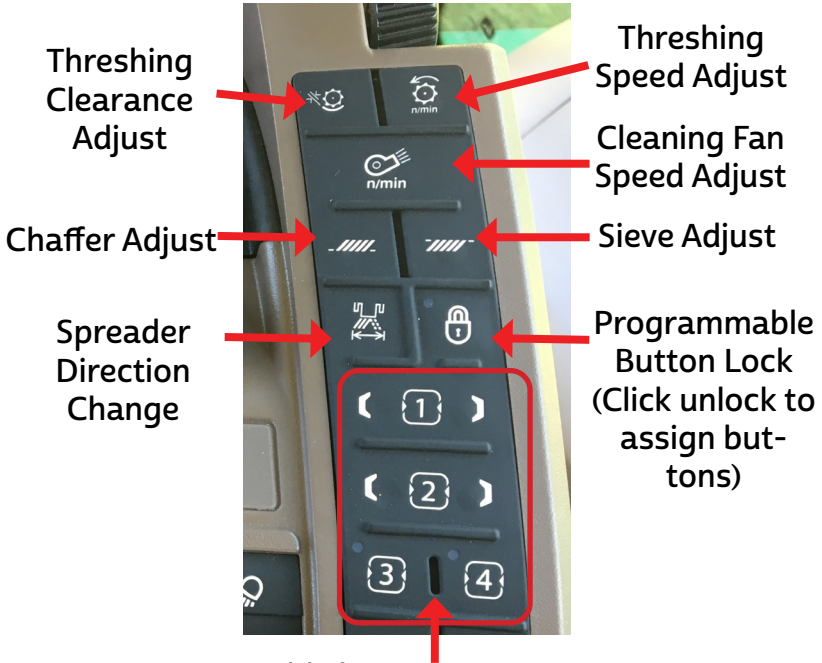
Diff Lock

4WD  
High/Low

Lights, Radio,  
Temp Control



# S700 Series ARMREST



Menu-> Machine Settings-> Controls Setup



Buttons 1 & 2:  
multi position  
functions

Buttons 3 & 4:  
single position  
functions

# HEADER CALIBRATION

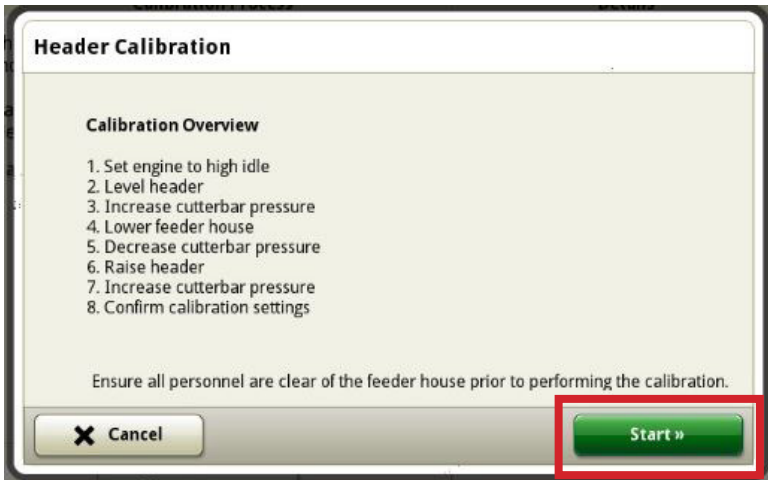
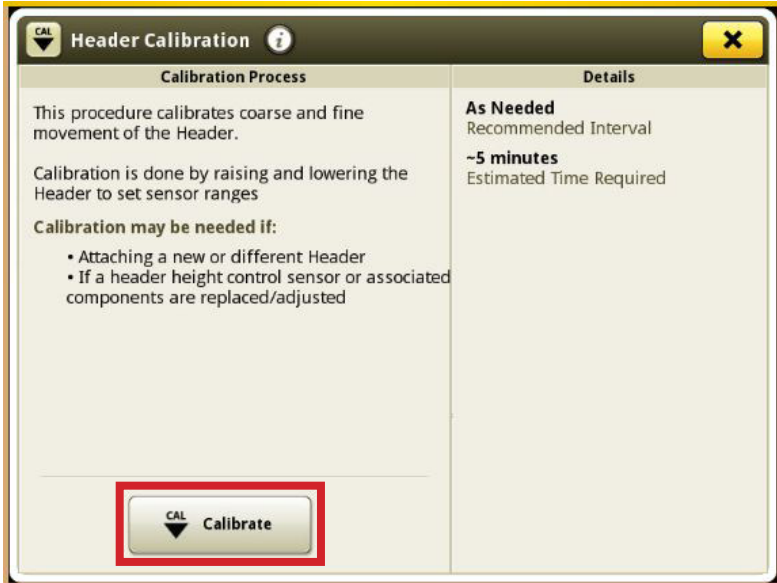
Go to MENU -> MACHINE SETTINGS ->  
CALIBRATIONS AND PROCEDURES -> HEADER



Recommend performing Header calibrations every year. For best performance complete Feeder House Lateral Tilt before hooking up header. Next Feeder House Speed, Fore/ Aft (if equipped), and Header Calibrations.



# HEADER CALIBRATION



# HEADER SETUP

From the home screen select **MENU -> MACHINE SETTINGS -> HEADER** to set up the header. Click the Header Type to adjust width, minimum reel speed, and recording stop height.

**Header** Header Type 0.00 h 30.0 ft

**Advanced Draper**  
Header Type

Raise / Lower Speed: 50

Height Sensitivity: 50

Tilt Sensitivity: 50

Auto Control: 3, 2, 1

Fore/Aft Tilt: -10.5

Draper Belt Speed: 0

Hydraflex Pressure: 2000

Cutterbar Tilt: ▲ ▼

**Header Details | Advanced Draper**

Width: 30.0 ft

Work Recording: 50 %  
Record Stop Height

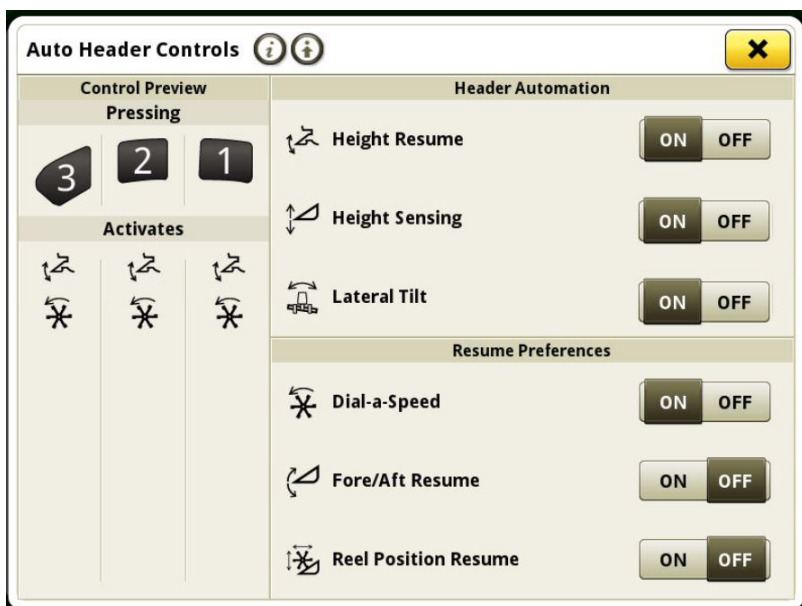
Set to Current Height

Minimum Reel Speed: 10 n/min

Hours: 0.0 h

# HEADER SETUP

Next select **AUTO CONTROL** from the header home page to enable the appropriate header functions.



**Height Resume** - must be enabled for use of the 3-2-1 buttons on hydro handle

**Height Sensing** - for Hydraflex operation (700F/FD and 600F/FD) for height sensing on 700/600 series cornheads

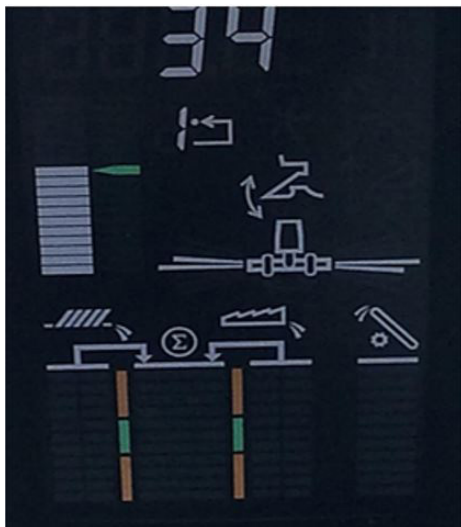
**Lateral Tilt** - CONTOUR MASTER Enable Button

**Dial-a-Speed** - Reel DIAL-A-SPEED Button- this will allow the reel speed to match ground speed based on what ratio is set w/ the dial on the armrest

**Fore/Aft Resume** - Enable hydraulic feederhouse Fore/Aft on equipped machines

**Reel Position Resume** - Ties reel position (or deck plate spacing) to the 3-2-1 buttons

# SETTING HEADER RESUME: 3-2-1 BUTTONS



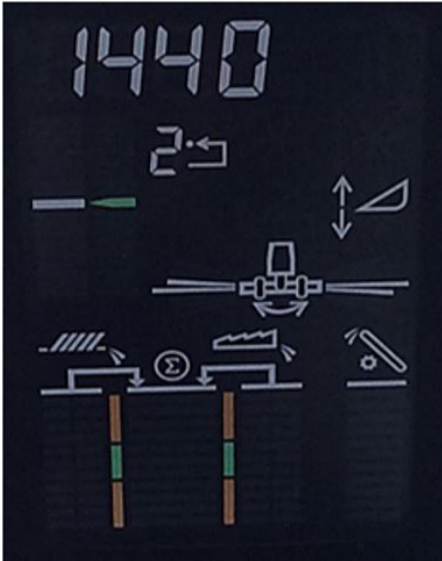
Header Resume must first be enabled. When the symbol is displayed on cornerpost, this confirms it is active. Press the #3 button on the hydro handle - you will notice the number on the AHC panel of the Cornerpost.

Use the AHC dial on the armrest to set the desired cutting height setpoint. The height will resume from where you had set it. Press the #2 button - Set #2 as an alternate cutting height. Press #1 and use the AHC dial to set #1 as your raise height for turning on the ends.

The number on the display indicates which activation button was selected.

Manually raising the header will deactivate the system. Pressing any of the three activation buttons will reactivate the system.

# SETTING HYDRAFLEX PRESSURE



Height Sensing must be enabled. When the symbol is displayed on cornerpost, this confirms it is active.

If the Header Height Sensing and the Header Height Resume are both enabled:

- Button 1 activates Header Height Resume
- Button 2 and 3 activates Header Height Sensing

To change the HYDRAFLEX pressure setpoint- press #3 and use the AHC dial to adjust the pressure. The actual Hydraflex pressure will be displayed on the cornerpost. Set #3 with a lower pressure (more rigid) for dry conditions. Set #2 at higher pressure (more float) for wet conditions.

## **Recommended Hydraflex Pressure Settings:**

As you increase pressure - the more float the header will have.

- 1,000 psi for firm ground conditions.
- 1,300 psi for normal ground conditions.
- 1,700 psi for soft ground conditions.

# WORK SETUP



Select **SETUP** in the lower left hand corner of the home page.

Press **LOCATION** and fill in the accurate Client, Farm, and Field information. Click **OK**.

Under **WORK SUMMARY** fill in the crop and variety information. Click **OK**.

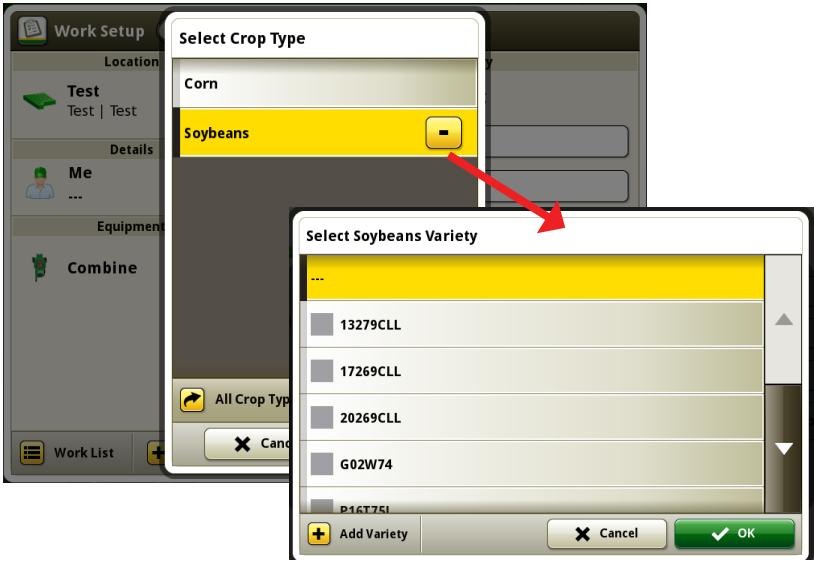
**Work Setup**

Location	Work Summary
<b>Test</b> Test   Test	Type: <b>Harvesting</b>
<b>Details</b>	Crop: <input type="text" value="Soybeans"/>
<b>Me</b> ...	Variety: <input type="text" value="13279CLL"/>
<b>Equipment</b>	Harvest Units: <input type="text" value="Bushel (bu)"/>
<b>Combine</b>	<input type="button" value="Harvest Setup"/>

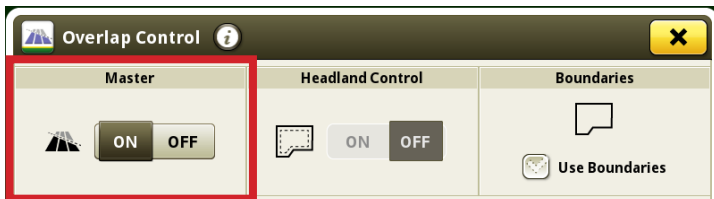
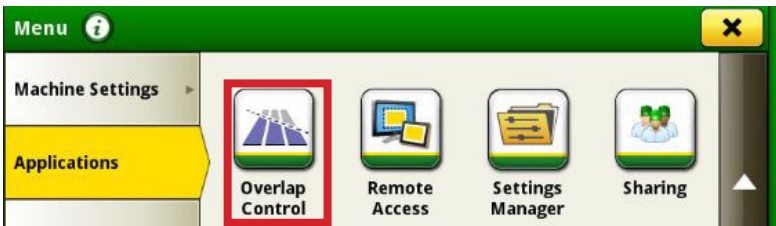
**Select Field Location**

<b>Client</b> Test	<b>Test</b> Client: Test   Farm: Test
<b>Farm</b> Test	
<b>Field</b> Test	

# WORK SETUP & OVERLAP CONTROL



To enable Overlap control select  
MENU -> APPLICATIONS -> OVERLAP CONTROL -> ON



# HARVEST SETTINGS

Navigate to Harvest Settings page to set combine.  
**MENU -> MACHINE SETTINGS -> HARVEST SETTINGS**  
Select crop settings at the top and choose factory default crop settings. Press **Ok**.

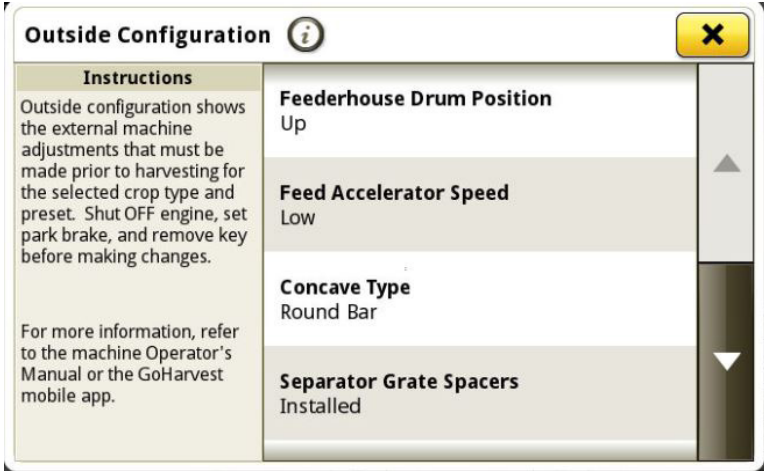


Next, verify the machine is setup correctly. Click **OUTSIDE CONFIGURATION** at the bottom of the Harvest Settings page.

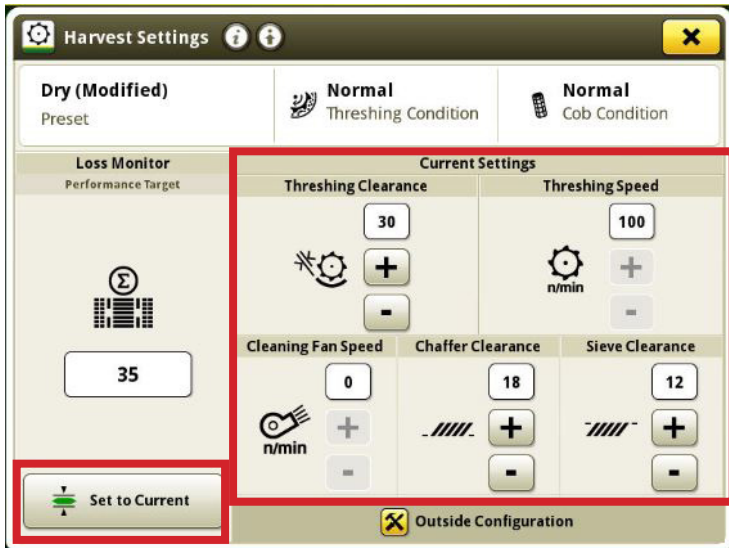




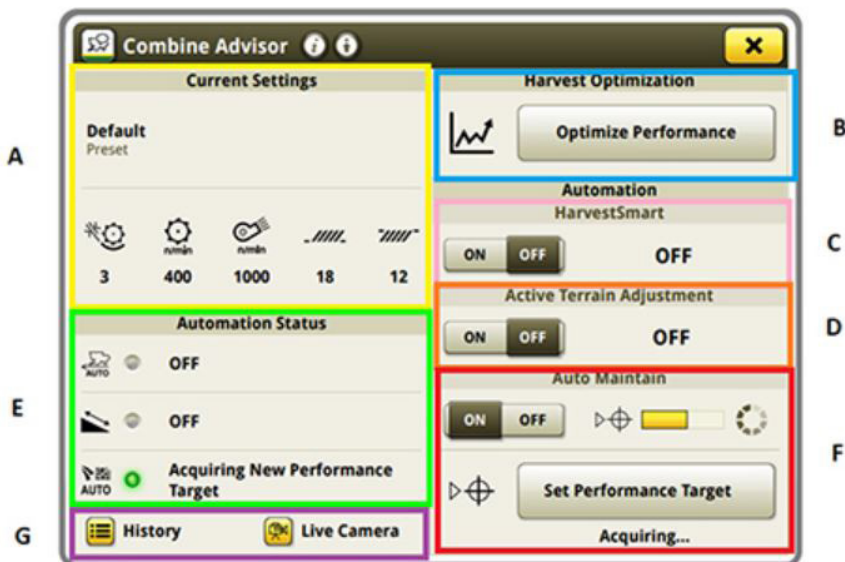
# HARVEST SETTINGS



To improve performance, you can make adjustments to current settings from the main Harvest Settings page. Once the combine is fine tuned and you have completed a field check for acceptable loss, press **SET TO CURRENT** to calibrate the Loss Monitor at normal harvest speed.



# COMBINE ADVISOR



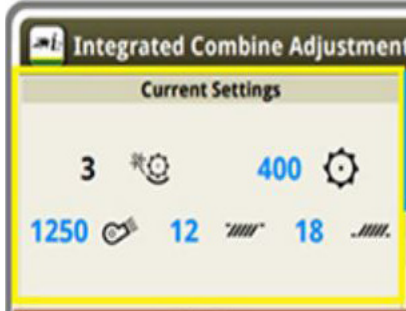
A	Takes operator to current settings for concave, rotor speed, fan speed, chaffer, and sieve.
B	Optimize combine performance button
C	HarvestSmart system automates ground speed control to maintain a constant crop load.
D	Active Terrain Adjustment system produces better grain quality and fewer losses while controlling tailings volume when harvesting up and down hills.
E	Combine Advisor system – HarvestSmart, Active Terrain Adjustment, and Auto Maintain.
F	Auto Maintain monitors and makes adjustments to maintain the performance at the operator-set target.
G	Live view of the clean grain and tailings elevators. Also shows past adjustments made automatically.

# COMBINE ADVISOR

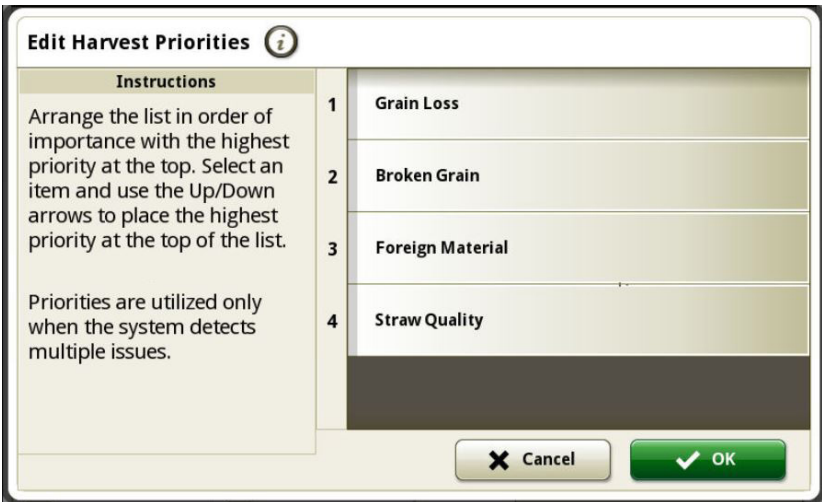


From the Home page access Combine Advisor to make adjustments to the combine's performance. Use the shortcut icon on the bottom of the display.

1. Confirm factory default settings for crop are accurate.



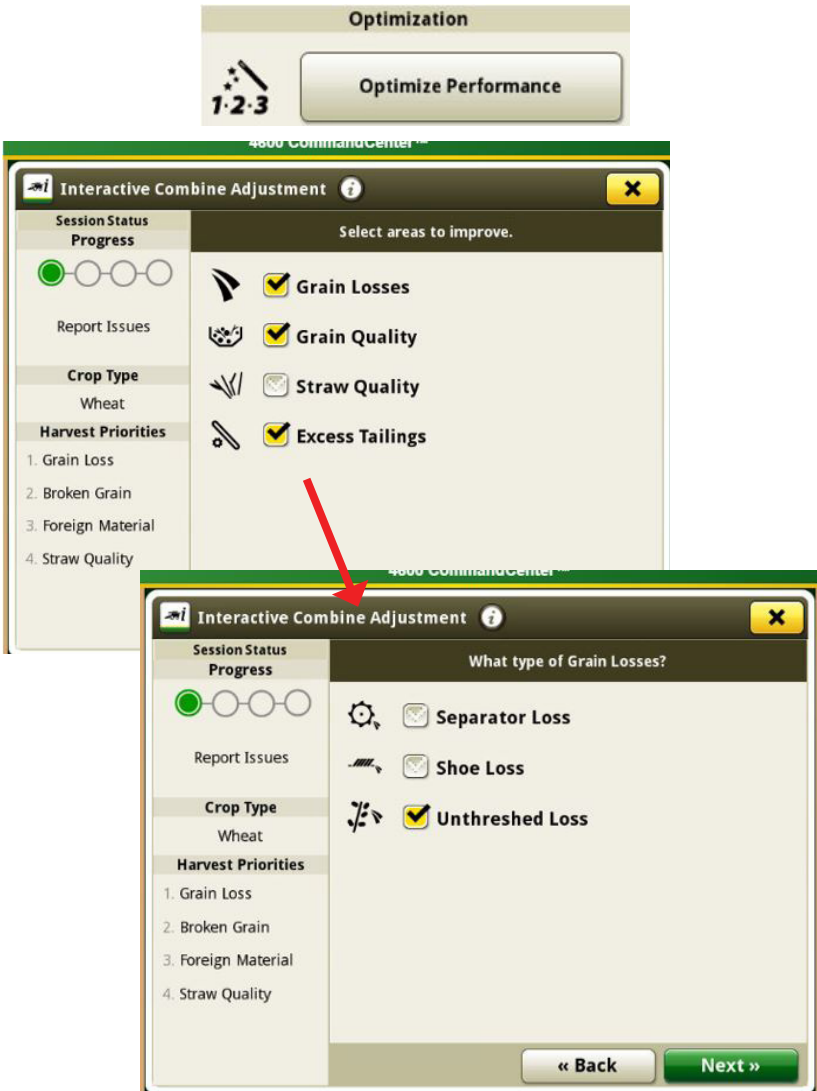
2. Identify order of harvest priorities.



3. Combine a load and check sample for quality. Perform in field check for losses.

# INTERACTIVE COMBINE ADJUSTMENT

4. Select **OPTIMIZE PERFORMANCE** and choose what areas need improvement. Follow the on screen prompts.

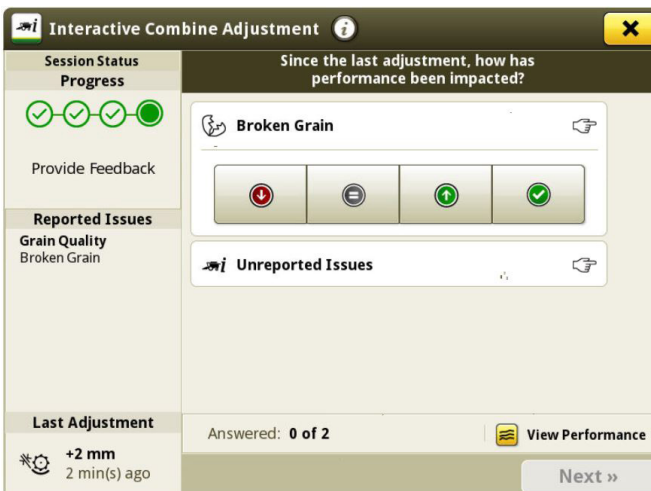


# INTERACTIVE COMBINE ADJUSTMENT

- Combine will recommend possible adjustments. Scroll to view and select which to apply.

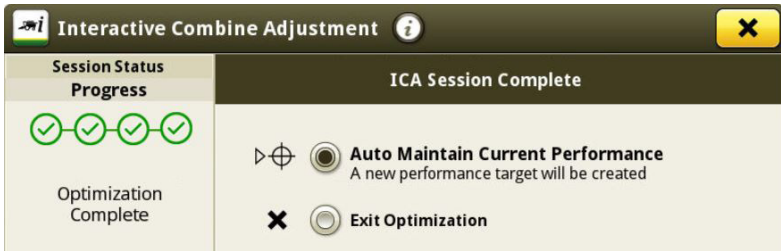


- ICA2 will apply the settings and monitor performance change. After setting adjustments are complete indicate whether the issue has been resolved.

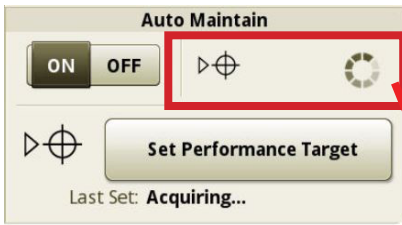


# FINE TUNING AUTO MAINTAIN

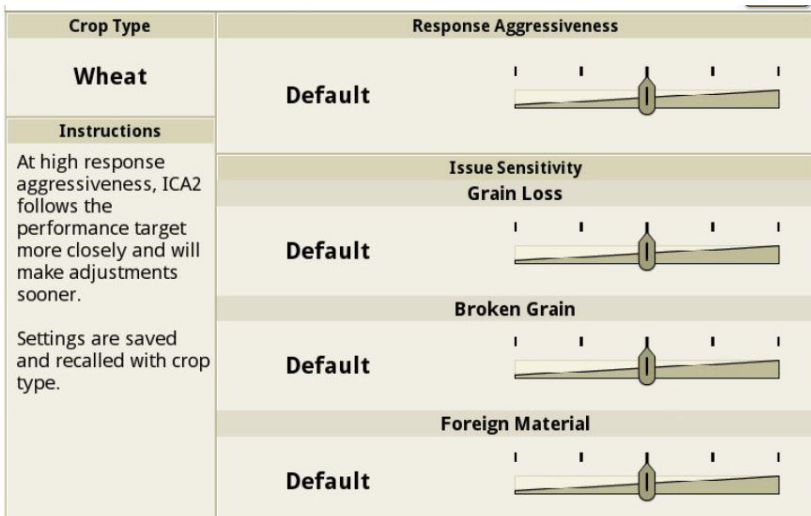
Once performance has been corrected the ICA2 session is complete. You can now choose to Auto Maintain current performance/Set Performance Target. This may take a round or two to complete based on flow.



Select area to the right of Auto Maintain ON/OFF.



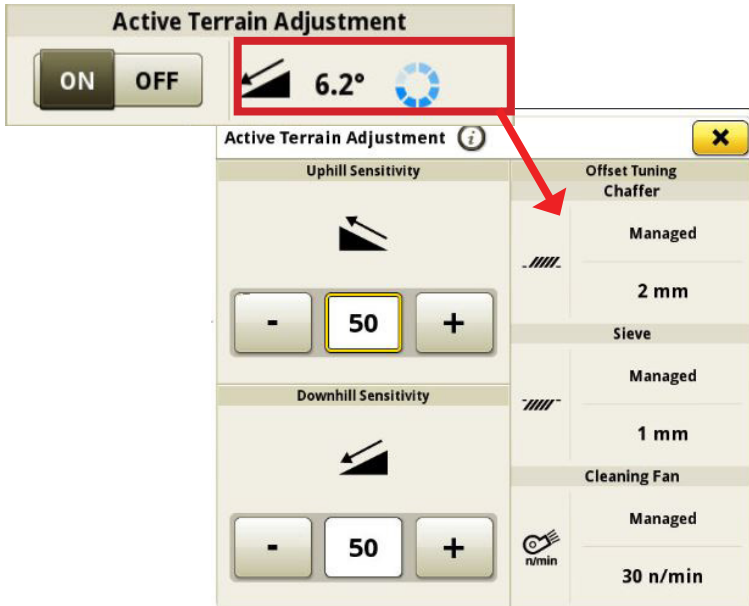
Adjust sliders to control how frequently Auto Maintain adjusts settings.



# AUTOMATION

Turn on Active Terrain Adjustment. Select area to the right of the On/Off button to adjust sensitivity.

\*Note: Active Terrain Adjustment requires good Starfire receiver TCM calibration



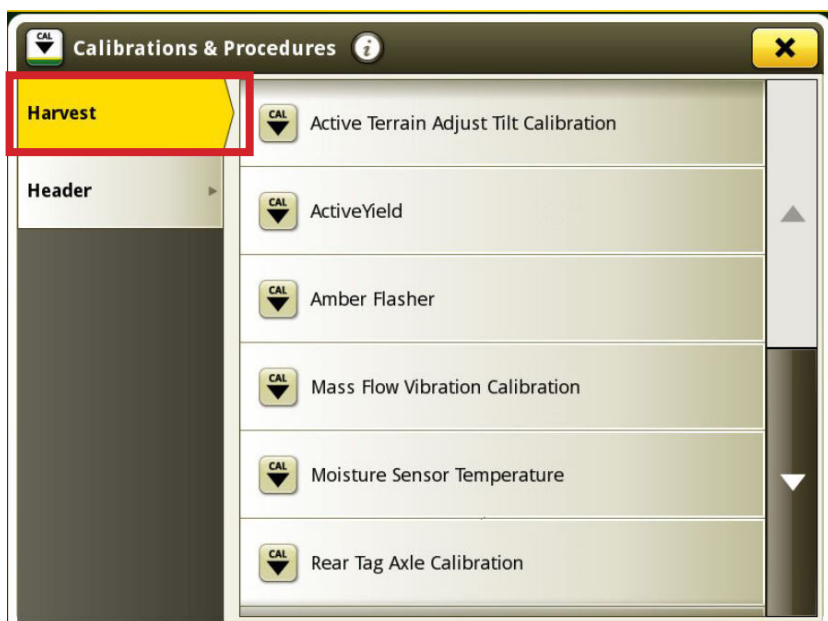
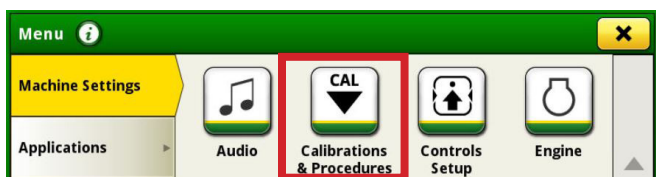
After optimizing performance turn on HarvestSmart to maintain a constant crop load. Select area to the right of the On/Off button to adjust sensitivity.



\* Note: If HarvestSmart and Auto Maintain are both desired, it is recommended to turn both systems on and set a target. You will have to setup button E on hydro handle to Resume HarvestSmart once in crop.

# YIELD CALIBRATION PROCEDURE

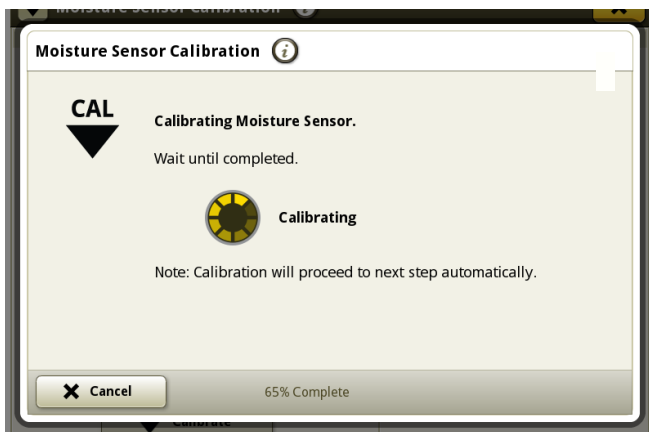
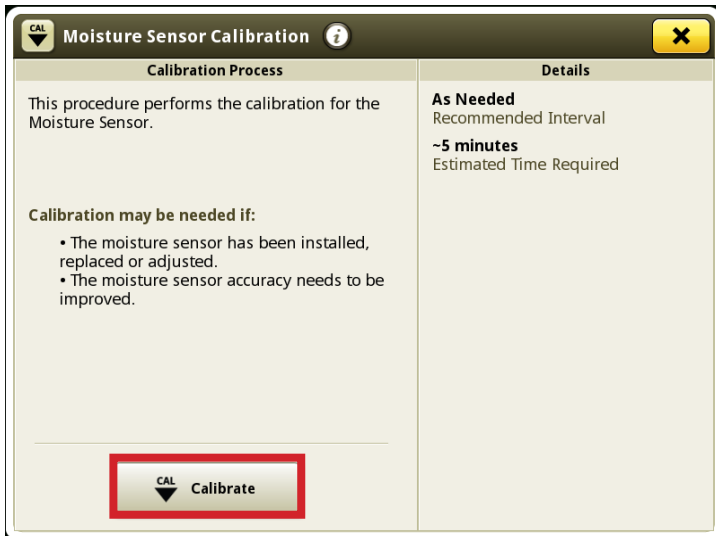
Go to MENU -> MACHINE SETTINGS -> CALIBRATIONS  
AND PROCEDURES -> HARVEST





# MOISTURE SENSOR CALIBRATION

Select Moisture Sensor Calibration from the Harvest Calibration menu. Separator must be off and moisture sensor bypass empty. Follow on screen instructions.



# MASS FLOW VIBRATION CALIBRATION

Mass Flow vibration sensor must be calibrated each time the Header is changed and when changing crops.

4600 CommandCenter™

**Mass Flow Vibration Calibration**

Calibration Process	Details
<p>This procedure calibrates the mass flow sensor to accommodate for normal vibration of machinery while in operation. Performing this calibration will prevent the mass flow sensor from falsely "reading" vibration as material being harvested.</p> <p>Prerequisites must be met in order to calibrate.</p> <p>Calibration may be needed if:</p> <ul style="list-style-type: none"><li>• Equipment configuration has changed</li><li>• Crop type being harvested has changed</li></ul>	<p><b>As Needed</b></p> <p>Recommended Interval <b>-1 minute</b></p> <p>Estimated Time Required</p> <p>* Follow the on screen prompts.</p>

**Calibrate**

## Mass Flow Vibration Calibration



### Step 1: Meet the Calibration Prerequisites

In order to perform a successful calibration, please ensure the following prerequisites have been met.

- ✓ Machine in park
  - ✓ Header attached
  - ✓ Separator and Header engaged
  - ✓ Engine at high idle
- Combine Empty
  - Header in harvesting position

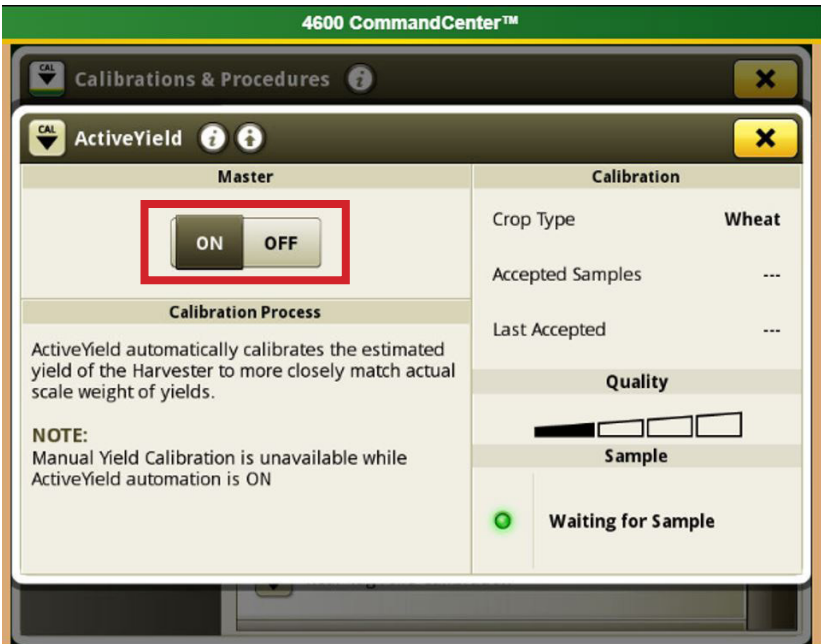
**Cancel**

**Next »**

# ACTIVE YIELD

Verify Active Yield is **ON** to automatically calibrate yield while crop is harvested.

Menu -> Calibrations -> Harvest -> Active Yield -> On/Off



Active Yield is supported in the following crops:

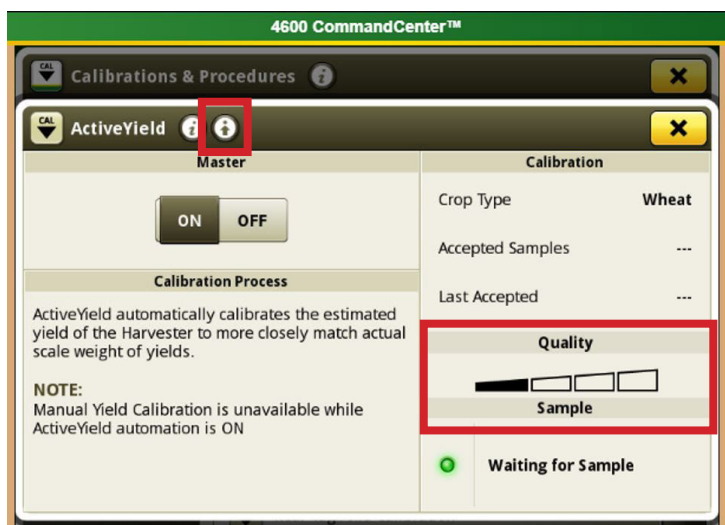
- Wheat, Barley, Canola, Corn, Soybeans

Active Yield requires the following calibrations prior to operation:

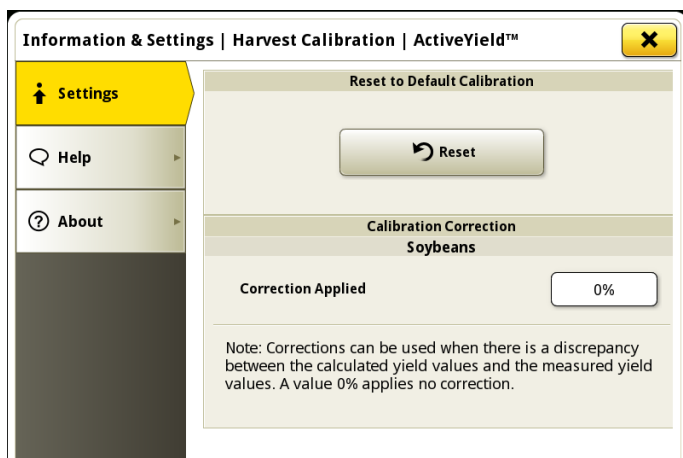
- Mass Flow Vibration
- Moisture Sensor Calibration
- Starfire Receiver TCM Calibration

# ACTIVE YIELD

Quality indicator shows number of loads accepted.  
4 Bars = 5+ Loads Accepted



By selecting Advanced Settings you can Reset Loads or apply a Correction. Corrections should be calculated based off of whole field totals not load by load.



# MANUAL YIELD CALIBRATION

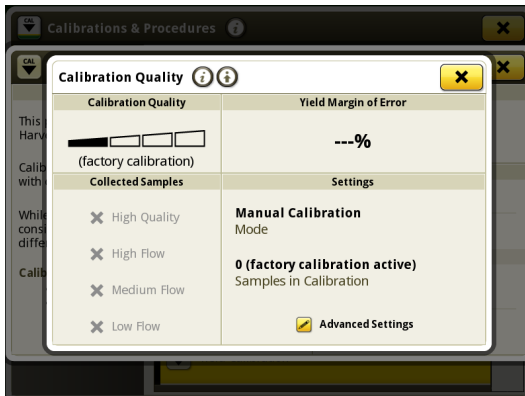
To perform a Manual Yield Calibration you must first shut **OFF** ActiveYield.

Menu - > Calibrations -> Harvest -> Active Yield -> On/Off



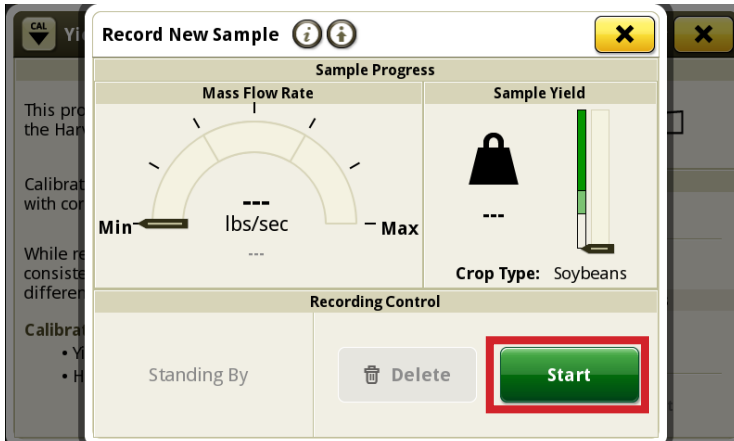
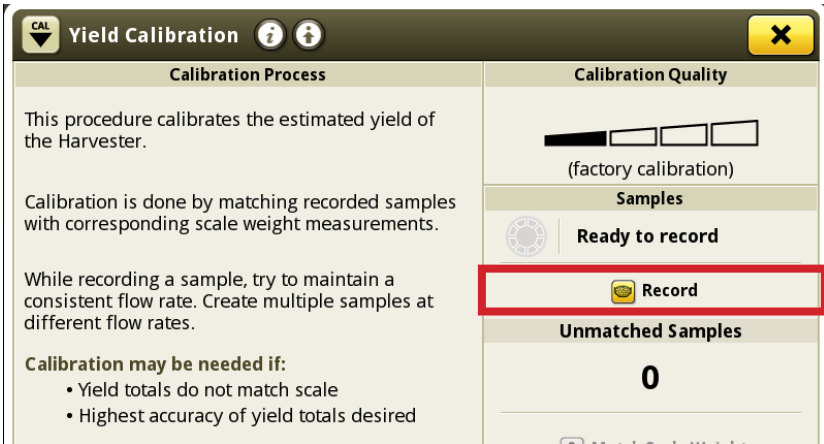
## Helpful Hints:

- Calibration loads must be uniform in size and over 5,000 lbs. Larger sample is better.
- High Quality Loads: Harvest with a constant flow rate during each calibration load. Do not turn on ends or cross levees while calibrating.
- Harvest each calibration load at a different flow rate. Change flow rate by changing ground speed.
  - High Flow = > 66%
  - Med Flow = 33-66%
  - Low Flow = < 33%



# MANUAL YIELD CALIBRATION

Next select **YIELD CALIBRATION** from the Calibration Menu.  
Click **RECORD** and then **START** to begin the calibration.



Press **END** to stop recording once the sample size has reached 5,000 lbs or more.

# MANUAL YIELD CALIBRATION

**Calibration Quality**

  
(factory calibration)

**Samples**

 **Ready to record**

 **Record**


**Unmatched Samples**

**2**

 **Match Scale Weight**


Select **MATCH SCALE WEIGHT** to enter your scale weight for each calibration load.

**Match Scale Weight** ⓘ ✕

Sample ID	Quality	Date / Time	Sample	Scale	Margin
0001			<b>7,910 lbs</b>	---	---
0002		---	<b>6,693 lbs</b>	---	---

**Sample | Enter Scale Weight**

**Recorded Weight**



**7,910**  lbs

**Sample Details**

Date/Time Collected: ---  
Flow Rate Category: **High**  
Mass Flow Rate Avg: **-0.0 lbs/sec**  
Duration: **0 minutes**

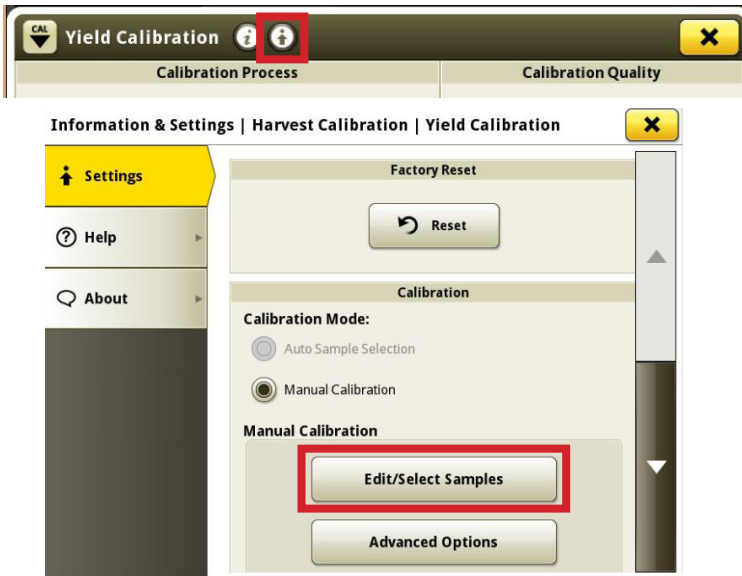
**7800** lbs ✕

7 8 9  
4 5 6  
1 2 3  
+ / - 0 .

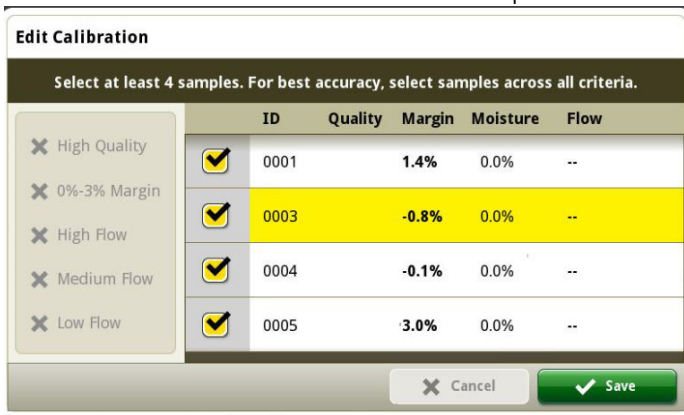
 **Delete Sample** ✕ **Cancel**  **Save**

# MANUAL YIELD CALIBRATION

Next, from the Yield Calibration page click the “Settings” icon. Select **EDIT/SELECT SAMPLES**.



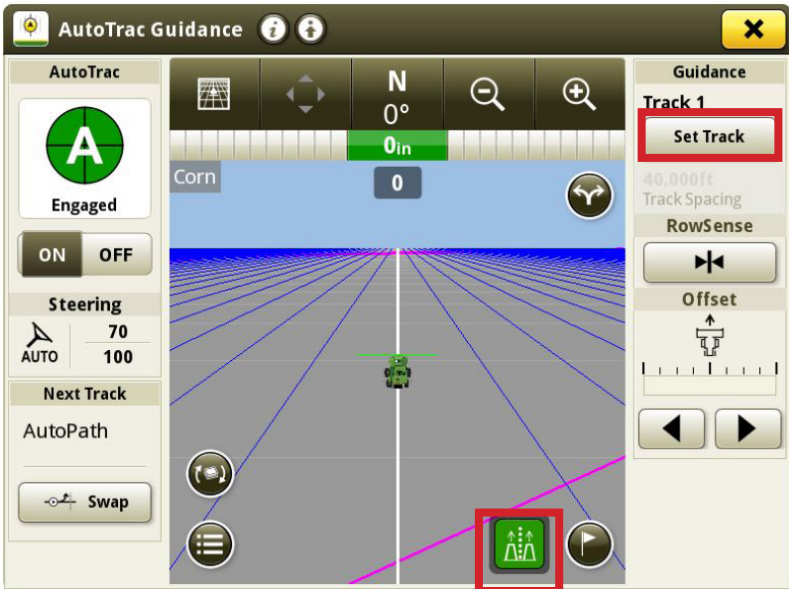
Place a checkmark next to the load and save to calibrate. After each load uncheck the previously calibrated load. Collect next sample and calibrate. After 4 or more loads within 3%, select ALL and Save for a multipoint calibration.



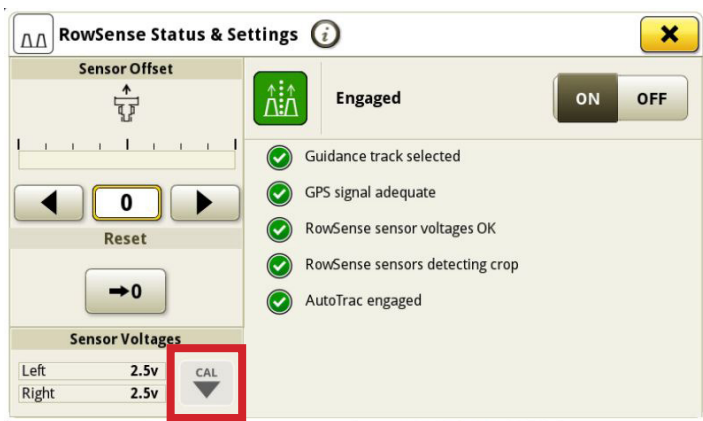


# AUTOTRAC GUIDANCE

Select Guidance Shortcut, then select Set Track to create/ select AB line or AutoPath (AutoPath will be first on list if present).

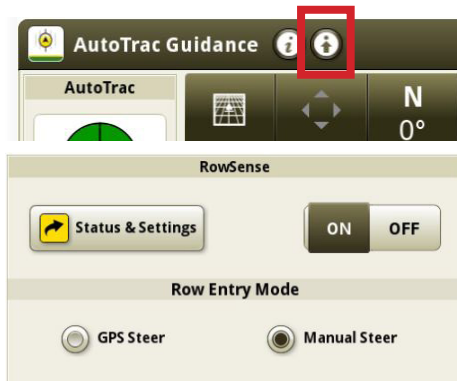


Select Rowfeeler status button to calibrate and for status details.



# AUTOTRAC ROWSENSE

Select Advanced Settings at the top of the screen to select Row Entry mode.



GPS Steer: Requires you to press the resume switch twice. The first press will resume the line and the second press will resume the sensors.

Manual Steer: You will have to steer into your row and press the resume switch once to resume both GPS and sensors.

## RowSense Status

System is engaged and operating with both row sensor data and GPS.



No GPS signal. System operating with row sensor data only.



No row sensor data. System operating with GPS only.





# NEED ASSISTANCE? CONTACT US!

Belle Plaine, MN	952-873-2224
Bird Island, MN	320-365-3445
Blue Earth, MN	507-526-2714
Brookings, SD	605-693-3514
Garretson, SD	605-594-3476
Hollandale, MN	507-889-4221
Huron, SD	605-352-8519
Madison, SD	605-256-4575
Mankato, MN	507-387-8201
Marshall, MN	507-537-1523
Milbank, SD	605-432-5523
Minnesota Lake, MN	507-462-3828
Montevideo, MN	320-269-6466
Northwood, IA	641-324-1154
Osage, IA	641-732-3719
Owatonna, MN	507-451-4054
Redwood Falls, MN	507-644-3571
Sleepy Eye, MN	507-794-5381
Tyler, MN	507-247-5572
Wabasso, MN	507-342-5171
Watertown, SD	605-886-3545
Wheaton, MN	320-563-8112