

Yield Calibration for SPFH Harvest Monitor and Harvest Doc

Prior to calibrating the GreenStar System, the following should be taken into consideration to provide an accurate yield measurement:

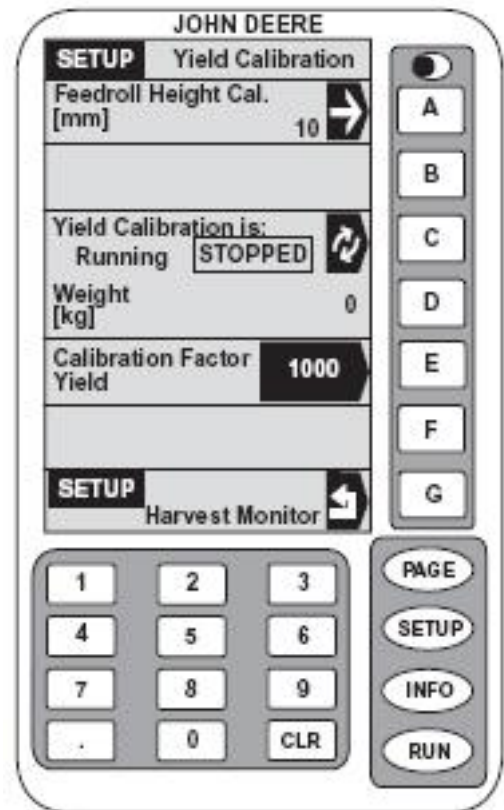
Original GreenStar System

Feedroll Height Calibration (Setup->Harvest Monitor->Yield Calibration)

The purpose of calibrating the feedroll height is to set the sensor's "zero point" of the feedroll position.

- Prior to calibrating the feedroll height, make sure the feedrolls are correctly adjusted (see Forage Harvester Operators Manual).
- **Remove all material between the feedrolls.**
- Once material is free from the feedrolls, the "Feedroll Height" on the display should show 10 mm (.39 in). If any number other than 10 mm (.39 in) is displayed, calibrate the "Feedroll Height" by pressing key **A**.

Note: The feedroll height calibration will change when increasing or decreasing the feedroll spring tension or by changing the spring mounting position.



Standard Yield Calibration Procedure (Setup->Harvest Monitor->Yield Calibration)

The Harvest Mon/Doc system must be calibrated in order to achieve accurate crop weight measurements. Many factors affect the yield calibration, for best results:

- Perform a yield calibration for every crop and when crop conditions change (i.e. different cuttings, moisture, etc.).

- When calibrating, harvest uniform windrows/standing crop at the speed the operator expects to run.
- When harvesting crops in windrows, make sure the crop is evenly fed into the machine and not off to one side of the head.
- Avoid harvesting areas with low yield/flow while calibrating the system.

Prior to starting a yield calibration, make sure the wagon or truck hauling crop away from the SPFH is empty. To perform a Calibration:

1. Navigate to Setup->Harvest Monitor->Yield Calibration.

2. To start the calibration, press key **C**. The display will change to: Yield Calibration is: Running.

3. Begin harvesting. Weight displayed at key D should increase while harvesting.

4. Harvest a known amount of crop (i.e. truck load, wagon load, etc.).

5. When the load is complete, press key **C** to stop calibration. The display will change to: Yield Calibration is: Stopped.

IMPORTANT: Be sure all material is on one wagon/truck and avoid crop loss in the field.

6. Weigh the load. While waiting for the scale ticket to return, you may continue harvesting by pressing "Run".

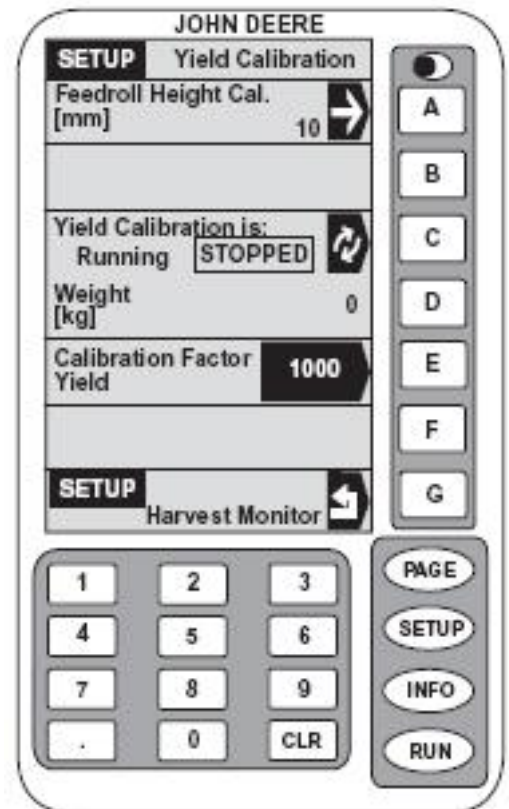
7. Once you know the crop weight (i.e. loaded truck weight – empty truck weight = crop weight), enter the crop weight at Setup->Harvest Monitor->Yield Calibration.

8. Press key **D** to change weight value.

9. Use the numeric keypad to input the crop weight.

10. Press key **D** to save the new value. The calibration factor will change automatically when the crop weight is entered.

IMPORTANT: Changing the calibration factor will NOT change crop data previously harvested. After calibration changes are made, all harvest information collected from that point forward will reflect the changes.



Fine Tuning the Calibration Factor

If an operator desires to fine tune the system calibration, performing the procedure below will minimize the variation associated with each calibration run.

- Perform the standard calibration procedure (steps 1-6 from above), but do not enter the actual load weight in the display. Use the following formula to calculate calibration factor:

Display calibration factory x (GreenStar Weight/Actual Weight) = New calibration factor

- Record the new calibration factor on a piece of paper.
- Repeat steps 1-6 at least two more times and record the new calibration factors.

Note: When fine tuning the calibration factor, the calibration factor must stay the same for each calibration.

- Average the new calibration factors.
- Enter the new averaged calibration factor in Setup->Yield Monitor->Yield Calibration

Example:

Load 1 new calibration factor = 856

Load 2 new calibration factor = 871

Load 3 new calibration factor = 866

New calibration factor: $856 + 871 + 866/3 = 864$

Important: The SPFH must be operated at approximately the same speed and under the same type of conditions as the initial calibration procedure was performed.

GS2 System

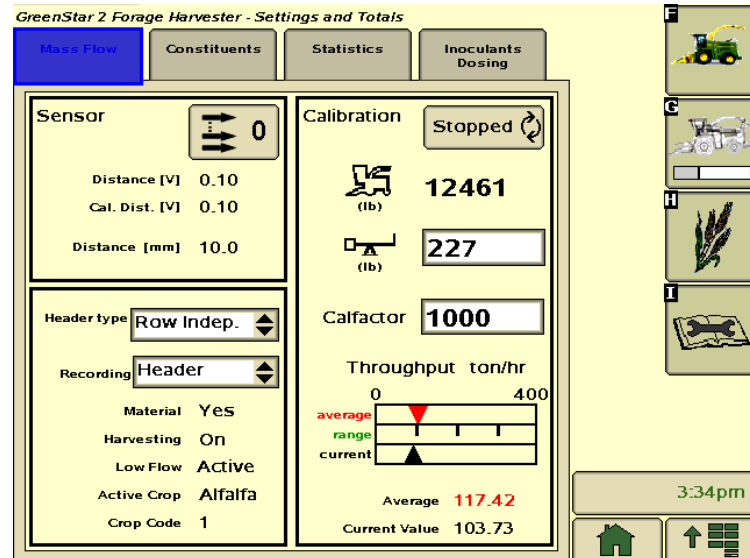
Feedroll Height Calibration (Menu->Forage Harvester->Setting & Totals->Mass Flow Tab)

The purpose of calibrating the feedroll height is to set the sensor's "zero point" of the feedroll position.

- Prior to calibrating the feedroll height, make sure the feedrolls are correctly adjusted (see Forage Harvester Operators Manual).
- **Remove all material between the feedrolls.**
- Once material is free from the feedrolls, the "Distance (mm)" under the Sensor section should show 10 mm (.39 in). If any number other than 10 mm (.39 in) is displayed, calibrate the Feedroll Height by pressing



- A warning message will appear to confirm the feedroll height calibration, select the *Enter* button.



Note: The feedroll height calibration will change when increasing or decreasing the feedroll spring tension or by changing the spring mounting position.

Standard Yield Calibration Procedure (Menu->Forage Harvester->Setting & Totals->Mass Flow Tab)

The Harvest Mon/Doc system must be calibrated in order to achieve accurate crop weight measurements. Many factors affect the yield calibration, for best results:

- Perform a yield calibration for every crop and when crop conditions change (i.e. different cuttings, moisture, etc.).
- When calibrating, harvest uniform windrows/standing crop at the speed the operator expects to run.
- When harvesting crops in windrows, make sure the crop is evenly fed into the machine and not off to one side of the head.
- Avoid harvesting areas with low yield/flow while calibrating the system.

Prior to starting a yield calibration, make sure the wagon or truck hauling crop away from the SPFH is empty. To perform a Calibration:

1. Menu->Forage Harvester->Setting & Totals->Mass Flow Tab.

2. To start the calibration, press key the **Stopped** button. The button will change to *Running*.

3. Begin harvesting. Weight displayed in the Calibration section should increase while harvesting.


4. Harvest a known amount of crop (i.e. truck load, wagon load, etc.).

5. When the load is complete, press the **Running** button to stop calibration. The button will change to *Stopped*.

IMPORTANT: Be sure all material is on one wagon/truck and avoid crop loss in the field.

6. Weigh the load. While waiting for the scale ticket to return, you may continue harvesting.

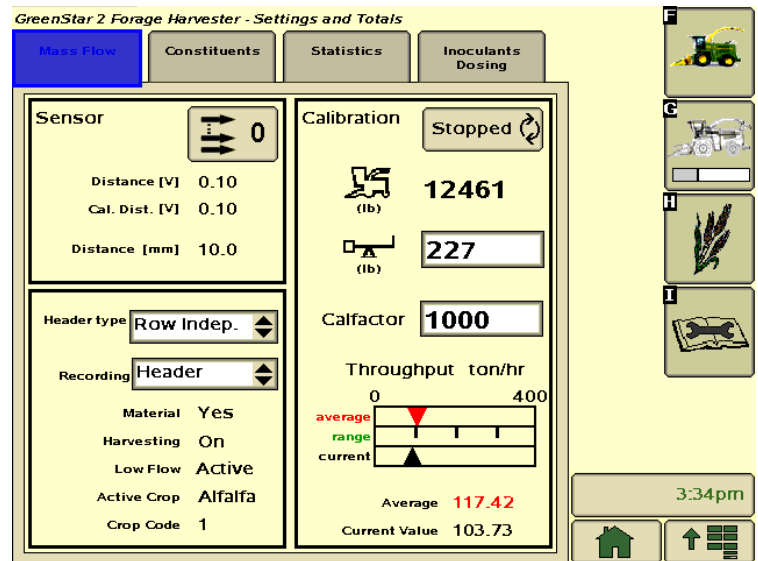
7. Once you know the crop weight (i.e. loaded truck weight – empty truck weight = crop weight), enter the crop weight at Menu->Forage Harvester->Setting & Totals->Mass Flow Tab

8. Select the input box next to  (lb) to enter the weight value.

9. Use the numeric keypad to input the crop weight.

10. Press the *Enter* button to save the new value. The calibration factor will change automatically when the crop weight is entered.

IMPORTANT: Changing the calibration factor will NOT change crop data previously harvested. After calibration changes are made, all harvest information collected from that point forward will reflect the changes.



Fine Tuning the Calibration Factor

If an operator desires to fine tune the system calibration, performing the procedure below will minimize the variation associated with each calibration run.

- Perform the standard calibration procedure (steps 1-6 from above), but do not enter the actual load weight in the display. Use the following formula to calculate calibration factor:

Display calibration factory x (GreenStar Weight/Actual Weight) = New calibration factor

- Record the new calibration factor on a piece of paper.
- Repeat steps 1-6 at least two more times and record the new calibration factors.

Note: When fine tuning the calibration factor, the calibration factor must stay the same for each calibration.

- Average the new calibration factors.
- Enter the new averaged calibration factor in Menu->Forage Harvester->Setting & Totals->Mass Flow Tab

Example:

Load 1 new calibration factor = 856

Load 2 new calibration factor = 871

Load 3 new calibration factor = 866

New calibration factor: $856 + 871 + 866/3 = 864$

Important: The SPFH must be operated at approximately the same speed and under the same type of conditions as the initial calibration procedure was performed.