Top Tips for Better Corn, Soybean and Down Corn Harvesting

Combine Settings for a Better Corn Harvest

1. Gathering Chain Speed: Begin calibration with initial gathering chain speed of 55 RPMs. If butt shelling is a problem, slow down the corn head speed until it starts to bulldoze cornstalks, then speed back up until bulldozing stops.

2. Stripper Plate Gap: Adjust so the gap is 1/16-inch wider than the diameter of the 3rd cornstalk node above the brace root. Ensure stripper plate gap is centered over the stalk rolls.

3. Cross Auger: Adjust vertically to have 2” clearance between flighting and tray at the tightest point to reduce ear slicing. Also, adjust rearward as far as possible.

4. Feeder Chain Adjustment: Adjust to max length and/or as close to the corn head’s cross auger as possible. Also, run it as fast as possible to reduce ears piling up during the hand-off from the corn head to the feeder house.

5. Rotor Speed: Increase until the first cracked kernel appears in grain tank, then slowdown by 10 RPMs.

6. Concave Clearance: Open until rotor loss occurs, then close slightly.

7. Fan Speed: Increase until the red chaff is gone, then slowdown by 50 RPMs.

8. Top Sieve: Close until grain loss increases then reopen until the first cob appears in the grain tank.

9. Bottom Sieve: Run wide open. There is no part of a corn cob that needs re-threshed. If there are cobs in the tank, then the top sieve is open too far.

Questions? Call Marion Directly at (309) 368-1182
Combine Settings for a Better Soybean Harvest

1. **Harvesting the Soybean Field:** Start harvesting on the downwind side. The wind will help spread straw away from uncut soybeans. Also, it is a good idea in case of fire.

2. **Sickle Bars:** 3” sickle bars cut better in No-Till than 2” or 1 ½” sickle bars.

3. **Draper Heads:** Are better than auger-fed platforms in all conditions.

4. **Cross Auger:** Clearance should be 1/16” between flighting and tray.

5. **Feeder Chain Adjustment:** Should be one thread less than fully extended. This allows the feeder drum to be as close as possible to the auger or draper belt during the hand-off from the platform to the feeder house.

6. **Reel Speed:** Synchronize reel speed to ground speed. Reel RPMs should be 10 times the ground speed. Example: 4 MPH ground speed = 40 RPM on reel.

7. **Rotor Speed:** Increase rotor speed until the first cracked soybean appears in the grain tank, then slowdown by 10 RPMs.

8. **Concave Clearance:** Open until rotor loss occurs, then close slightly.

9. **Concave:** Improve threshing power of soybean pods by installing filler bars or filler plates in the concave. This allows for more pods to rub against green pods, which significantly reduces un-threshed pods in the tank.

10. **Fan Speed:** Increase speed until all pod hulls have left the grain tank, then slow down by 50 RPMs. I run my fan speed on the maximum setting.

11. **Bottom Sieve:** Run wide open to let air flow to the top sieve.

12. **Top Sieve (Front Portion):** Close until the grain tank has 99% clean soybeans.

13. **Top Sieve (Rear Portion):** Close until un-threshed pods start going over the back, then open up 1/8” to allow them to fall into the return auger.

14. **Red Combines:** Adjust transport vanes to advanced position. This reduces the bleeding of horsepower and the amount of fodder and stems (MOG) that fall through the rotor cage and onto the top sieve.
Top Tips for Harvesting Down Corn

1. **Corn Head Angle:** We recommend setting the corn head angle to **20 degrees for down corn and 23-25 degrees for standing corn.** To check the angle, park the combine on a level surface and lower the header until the lowest point of the row unit is 2” above the ground. Place a protractor on the stripper plate and read the angle. Flattening the corn head angle makes gravity less of an enemy. To do this: push out the bottom of the corn head with a wedge kit, if needed.

2. Install Calmer’s down corn gathering chain paddles on every other gathering chain lug. This increases the conveying capacity and aggressiveness of the chains.

3. Install auto header height on your corn head. We prefer a Headsight sensor system over the Deere or Case-IH sensor systems. The Headsight system is more sensitive and is spring loaded so you can back-up without it breaking-off. (Headsight, Inc. Phone #: 574-546-5022)

4. Synchronize gathering chain speed to ground speed. We prefer to have the gathering chain lugs moving toward the header at the same speed as the cornstalks. To calibrate, mark a lug with orange or yellow paint OR install Calmer’s gathering chain timing paddle to one lug and count the RPMs. See page 1 for further instructions on timing gathering chain speed.

5. Raise the cross auger. We recommend setting the clearance between the tray and auger flighting at 2”. This clearance allows the dislodged material floating above the poly deck covers to be sucked under the auger and transported to the feeder house.

6. Open stripper plates. This reduces the energy required to move dislodged material through the row unit. We recommend setting stripper plate gaps to 1 1/2” in down corn situations.

7. Use more taper from bottom to top of the stripper plates. For example: Setting stripper plates to 1 3/8” at the bottom and 1 ½” at the top (near the gear box).

8. Center the stripping tunnel above the stalk roll tunnel. One problem with hydraulic plates is that only one plate moves, therefore shifting the stripping tunnel to one side, ultimately causing restriction and breakage of the stalks.

9. Synchronize gathering chain lugs so they are opposed from one another. This ultimately increases the aggressiveness of the gathering chains. We do not recommend this in rocky conditions or standing corn.

10. Install a corn reel. This provides more energy for transporting dislodged material from divider snouts to the cross auger.

11. Take off any end risers or tall corn extensions. This will reduce the angle of incline and improve the flow of material.

12. Remove rubber ear savers. This will reduce the energy required for material to flow to the cross auger.

continued on back page...
13. Add weight to poly divider snouts to help them stay under the canopy. Some brands of poly divider snouts are too light and want to hop up and out of the canopy.

14. Grind the wear shoe tips of the dividers or shim to give them more pitch. This will help them stay under the canopy. Be careful not to make them too aggressive, which could result in them self-engaging and folding underneath the head.

15. Use stalk rolls with revolving open windows. The open window will result in the easy feeding of stalks from the spirals to the stalk roll blades. Currently, Calmer’s BT Chopper stalk roll is the only stalk roll in the industry with this patented open-window design.

16. Turn gathering chains around to increase aggressiveness.

17. Start harvesting on the downwind side of the field. If the corn rows run north and south, and the corn is blown down to the east, start on the east side and work your way to the west. This will significantly reduce end divider plugging and bunching.