



## Marion's Top 18 Ideas for Harvesting Down Corn

1. Install Auto Header Height on your corn head. We prefer a Headsight sensor system over the Deere or Case-IH sensor systems. Headsight is more sensitive and it is spring loaded so you can back up without tearing it off. (Headsight: 574-546-5022)
2. Flatten the corn head angle. We prefer to make gravity less of an enemy. When the corn is lodged in a direction other than **"with the row"**, **push the bottom out** (wedge kits) or pull the top beam of the corn head toward the combine. 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. I like **20 degrees for down corn and 23-25 degrees for standing corn**.
3. Steepen the corn head angle. If the corn is lodged **"with the row"** a steeper angle allows the gathering chain lugs to get closer to the ground for retrieving stalks laying parallel to the row units.
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 corn stalks. 30 RPM's of the gathering chain= 2 mph in ground speed 45 RPM's of the gathering chain= 3 mph in ground speed. Mark a lug with orange or yellow paint to count the RPMs. We install 6 tooth gathering chain drive sprockets on John Deere Corn Heads and 9 tooth gathering chain drive sprockets on IH and Case heads in both standing and down corn. This slows down just the gathering chains but keeps the stalk rolls running at full speed. There are already enough broken stalks in the field, so I don't want the gathering chains making any more of them. If the down corn is root lodged I don't want the gathering chain lug pulling the root balls out of the ground and into the combine.
5. Raise the cross auger. We prefer to set the clearance between the tray and auger flighting at  $1\frac{3}{4}$  inch for standing corn and 2 inches for down corn. This 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. 200 bu corn standing 1 1/4 inch. 200 bu corn lodged 1 1/2 inch.
7. Use more taper from bottom to top on stripper plates. Example: 1 3/8 inch bottom and 1 1/2 inch top (near the gear box).
8. Center the stripping tunnel above the stalk roll tunnel. Hydraulic plates can shift the stripping tunnel to one side causing restriction and breakage of the stalks.
9. Synchronize gathering chain lugs to be opposed from one another. This increases aggressiveness of gathering. Not recommended in rocky conditions.
10. Add metal paddles on every other gathering chain lug. This increases the conveying capacity of a chain.
11. Install a corn reel. This provides more energy for transporting dislodged material from divider snouts to cross auger.
12. Take off any end risers or tall corn extensions. This reduces the angle of incline which improves flow.
13. Remove rubber ear savers. This reduces the energy required to flow material to the row unit.
14. Add weight to poly divider snouts to help them stay under the canopy. Some brands of poly divider snouts want to hop up and out of the canopy.
15. Grind the wear shoe tips of the dividers or shim to give more pitch to help them stay under the canopy. Be careful not to make them too aggressive so they self engage and fold underneath the head.
16. Use stalk rolls with revolving windows. This allows easy feeding of stalks from spirals to flutes.
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.
18. Turn gathering chains around to increase aggressiveness