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HANDLING RESIDUE WITH PLANTING EQUIPMENT

Planters and drills are now being built stronger and heavier with larger diameter disk seed-furrow openers, making no-till farming easier. Check the double-disk seed-furrow openers on your planter now, before the planting season, for wear and proper adjustment. The individual disks can be adjusted inward as they wear by removing spacer washers from behind them. This will keep the two blades of the seed-furrow opener working together as one cutting edge.

If the two blades are mounted side-by-side, like on the John Deere, Kinze and White planters, they should have about two inches of blade contact on the leading edge. On staggered disk seed-furrow openers, like on the Case-IH and Deutz Allis planters, the rear disk should be tucked in behind the leading disk, just touching. Adjust the disks or replace them to maintain the proper configuration. When properly adjusted, these seed-furrow openers can easily cut residue and penetrate the soil without coulters or row cleaners in front of them.

On well drained or highly erodible soils, the residue left over the row will absorb raindrop impact. This reduces crusting in the row and will be a mulch to reduce the drying of the seed zone. On poorly drained soils, "spider wheel" row cleaners could be used to move the residue off the row to aid in soil drying. Unlike disk row cleaners, the spider wheels can be set to move only residue.

Last year, I observed a farm where conventional row cleaners were set deep to move soil and wheat stubble away to plant dryland corn. So much soil was moved that after a heavy rain, the rows silted and crusted, causing a poor stand and more chance for soil insects to attack the seeds. The early planted corn was planted deeper into cool, wet soil and what resulted was a poor stand of corn after wheat stubble. Farmers have to be patient planting no-till into wheat stubble and residue movers should only brush the top to remove any residue clumps.

It is crucial that first time no-tillers understand that getting the seed to the proper planting depth is crucial and adjustments need to be made in no-till conditions versus conventional. There must be sufficient weight on the row units to keep the depth gauge wheels in firm contact with the soil to control planting depth. If the gauge wheels are loose, tighten the down pressure springs to transfer more weight or add heavy duty springs to the planter. In addition, there must be more total weight on the toolbar to keep the planter drive wheels in firm contact with the soil. This prevents slipping and helps keep the planter on the row. Having enough weight becomes more of a problem with drills simply because of the number of rows per unit of width. In the toughest conditions, you need 500 pounds of down pressure per row whether it is a drill or a planter.

When using a planter or drill in no-till conditions for the first time, do the March planting test and shake up you neighbors. Take the equipment to the field for a dry run. Level the planter in the field making sure the toolbar is at the proper height and leveled front-to rear, perhaps even slightly "tail" down. This allows for the full range of movement of the parallel links on the row units, helps keep the planter on the row, and aids in seed-to-soil contact. In addition, make sure that the planter carrying wheels are exactly centered between the rows and that they are carrying some weight. This is especially important if there are any ridges in the field from cultivation last



year. Try planting without seed to see if the drill or planter depth gauge wheels are in firm contact with the soil. If they aren't, tighten the springs. You may have to add weight to the planter or drill after you tighten the springs to make sure the drive wheels are firm to the soil. Make sure your neighbor sees you add seed (but just use a small amount) to check if the seed is getting to the proper seeding depth. You can analyze how well you are closing the seed-vee also.

With appropriate weight, down pressure, and adjustments, most current planters and drills will perform well in no-till conditions. A little time now will help avoid headaches and delays later during the planting season.

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