

THE LEADING EDGE

www.yetterco.com · [Yetter Manufacturing Inc](#) · [E-mail:info@yetterco.com](mailto:info@yetterco.com)

A PUBLICATION DEDICATED TO MAXIMIZING YIELD POTENTIAL

Planters Critical to Successful Conservation Planting

Precision adjustments and careful maintenance pay off at harvest

A 30-inch row planter operating at just 5 miles per hour, planting 30,000 seeds per acre, must meter a kernel approximately every 1/13 of a second--from every meter on the planter. As planting speeds increases, making adjustments to the planter and attachments becomes even more important to ensure the proper seed spacing and desired and seed placement.

Planters are called upon to manage residue, create openings for seeds at a consistent depth, facilitate solid seed-to-soil contact, and close the seed trench fully. Paying proper attention to your planter before it's time to put seeds in the ground is just as critical as hybrid selection and planting date. Making adjustments before planting to achieve leads to consistent seed planting depth leads to uniform emergence. When seeds emerge together and subsequently pollinate together, producers get the most out of their crop.

Skimping on planter maintenance or cutting corners prevents the planter and its attachments from performing as intended and hurts yields and profitability.

Step 1: Safety and Maintenance

Tackle these maintenance and safety items now, before the spring rush hits.

- **Read the manual.** Each producer is responsible for reading the operator's manual to learn the recommended maintenance and safety procedures for the implement.
- **Never clean, lubricate, or adjust a machine that is in motion.** Always install lockup mechanisms before servicing any equipment.
- **Make repairs on an as-needed basis.** You cannot afford to operate a planter that is not properly maintained.
- **Adhere to the manufacturers' recommendations for tire-pressure.** Proper inflation keeps the toolbar level to the soil surface and ensures the "drive tires" are turning at the same speed. An under-inflated drive tire will do all the driving and increase the seeding population rate due to a smaller circumference.
- **Inspect the entire toolbar.** Check that all chains, tensioners, and idler pulleys are in good, working condition. Also check that all of the hydraulic hoses are not leaking, and replace any that cannot be fixed.
- **Check and clean out all pumps and hoses.** Flush out all hoses and liquid pumps to clean out any old, leftover fertilizer. Also, look over all hoses to make sure that they're all ductile, and be sure to replace any that have dried out.

In-field adjustments are also critical while planting. At the end of this article, you will find a trouble-shooting chart will help you identify the cause and provide possible solutions to common in-the-field planting problems.

Step 2: Row-Unit Inspection

Broken seed tubes, worn parallel linkage arms, warped disc opener blades, and worn depth-control wheels can negatively affect seed placement. Off-season inspection and timely replacement can save critical down-time during the busy spring season.



The Checker from Yetter Farm Equipment is a tool that makes accurately adjusting the row unit and its attachments easier than ever before.

- **Inspect parallel linkage arms.** Worn parts can cause the row unit to operate in an unbalanced manner, affecting seed placement, closing-wheel spring pressure, and row-unit spring pressure.
 - Inspect bushings and bolts and look for elongated holes in the parallel arms.
 - Look for bent, broken, and twisted parallel arms and replace parts as necessary.
- **Check seed tubes.** Worn or broken seed tubes can affect seed depth and spacing.
 - Check the seed tubes for split ends, holes, or cracks.
 - Inspect the seed tube guard for wear. A worn-out guard is the leading cause of seed tube wear.
 - Make sure that the seed tubes are hooked on the row unit to prevent floating tubes and uneven seed depth.
- **Care for your seed meter.** Make sure meters are free of seed this winter.
 - Inspect all parts for signs of excessive wear like rust and replace if necessary.
 - Calibrate your meter—it can add several bushels per acre to yields.
- **Double disk openers.** Worn, cracked, or warped blades will affect seed placement, depth, and spacing.
 - You'll need a business card and chalk. Slide the card, top-down,

along the front of the disks until the card stops. Chalk that spot. Then, move the card to the rear side. Slide it forward until it stops and mark again. The distance between the two marks should measure more than two inches. Any less than that and it's time to reshape or replace the disks. (In general, disks must be more than 14½-inches in diameter for this test to be helpful.)

- **Depth control wheels.** Worn or improperly adjusted wheels will allow soil to fall into the seed furrow ahead of the seed, causing uneven seed depth.
 - Inspect the tire for wear or cracks. If the lip of the tire is worn away, the tire cannot be properly adjusted and should be replaced.
 - Inspect the bearings. The wheel must maintain continuous contact with the disc blade. If the bearings are loose, they should be replaced.
 - Inspect the depth control arms. The arms must be able to pivot and should be adjusted so that the wheel makes continuous contact with the disc blade. Remove and clean the gauge wheel arm pivot as necessary.
- **Seed boxes.** A misaligned seed box will cause the meter to drop seed into the seed tube.
 - Check the seed box for holes or cracks.
 - Inspect the seed box for cleanliness. Make sure it is free of foreign objects (e.g., plant residue, paper, string, and buildup of seed treatments), which can obstruct seed flow to the meter.
 - Seed boxes need to be evenly filled for even weight distribution across the planter.
- **Check closing wheel alignment.** It is important that the seed is covered with soil that is free of air pockets and compaction.
 - Set your planter on concrete and pull ahead about five feet. There should be a mark left behind the planter by the double disk openers. Does it run right down the centerline between the closing wheels? A closing wheel running too close to the mark

means you should adjust the closing wheels to re-center these pieces.ii

Level Planters Key for Optimal Attachment Performance

Adding row-unit mount attachments to a planter is a reason to take another look at your planter leveling. A properly adjusted planter allows you to be in control. Adjustments help achieve precise seed depth and consistent spacing for optimum yields.

Most attachments are designed to operate at a specific depth range, which they can only consistently do if your planter is running level to your soil. Most manufacturers recommend that coulters run 1/4-inch shallower than seed double-disc openers. (Always check your manufacturer's manual for specific recommendations for your tools.)



Check the planter to make sure the toolbar



Spike closing wheels help reduce sidewall compaction, create good seed-to-soil contact, and properly close the seed trench.

If your planter nose is tipped down, a multitude of complications are possible. Unit-mounted coulters will run below the seed double-disk opener, resulting in detrimental effects like air pockets below the seed and inconsistent seed depth.

If the planter frame is too low

height is correct and running level; all wear points are in good condition; the seed meters are properly calibrated; and the proper attachments are added; so it will perform at its highest level.

overall, the row unit will not be able to travel up and down as designed.

A Commitment to Precision Adjustment is Commitment to Better Yields

Smart producers know profits start with the planter and end with combine. Taking the time to properly set your planter will have a quick return on investment, while a failure to perform precision adjustment will result in less-than-ideal seed emergence and, ultimately, disappointing yields. So, get picky about your planter over the winter months, and carry that commitment into the spring.

i <http://www.precisionplanting.com/planting-tips/index.shtml>

ii <http://www.precisionplanting.com/planting-tips/index.shtml>

| PROBLEM | POSSIBLE CAUSE | POSSIBLE REMEDY |
|--|--|--|
| Seed trench not closing | Insufficient down pressure on the closing wheels | Increase the down pressure on the closing wheels |
| | The planter hitch is set too low | Ensure that in operation the planter hitch is set to the correct height (consult the planter's operator manual) |
| | The unit-mounted coulters are not providing enough soil disturbance | Use a wavy coultter blade |
| Poor seed-to-soil contact | The planter unit and/or frame mounted coulters are running too deep | Properly adjust coultter height and ensure that in operation the planter hitch is set to the correct height (consult the planter's operator manual) |
| | The double disc openers are excessively worn | Replace the openers |
| | The soil is too wet | Allow the soil time to dry |
| Seed is being planted at too shallow a depth | Excessive down pressure on the closing wheels | Decrease the down pressure on the closing wheels |
| | The planter needs additional ballast | Add ballast to the planter |
| | The double disc fertilizer openers are causing too much soil disturbance in the path of the seed double disc opener gauge wheels | Double disc fertilizer openers should be mounted a minimum distance of 2 ½" - 3" from either side of the row. Or equip the planter with single disc fertilizer openers |
| | Damp soil is collecting on the seed | Double disc opener depth gauge wheels allow the soil time to dry |
| | Damp soil is collecting on the seed | Allow the soil time to dry |
| | Planter unit depth is improperly set | Adjust the depth setting of the planter unit |
| Erratic seed placement | Excessive residue in the seed trench | Use a residue clearing device |
| | Low tire pressure | Inflate the tires to the recommended psi |
| | Excessive speed is causing the planter units and the unit mounted coulters to bounce | Decrease planting speed and increase down pressure spring tension |
| | Dry drive chains causing jerky movement | Lubricate drive chains |
| | Planter unit bounce | Add ballast to the planter |
| Starter fertilizer is not being placed in the proper zone by the double disc | Most double disc fertilizer openers are not built for pinpoint fertilizer placement | Equip planter with single disc fertilizer openers for pinpoint fertilizer placement |

Visit www.yetterco.com to review past issues of The Leading Edge and Yetter products that maximize your yield potential.

Notice – The information contained in this guide is offered in good faith by Yetter Mfg. Co., Inc. to further the understanding of no-till farming. However, the use of the information provided is beyond the control of Yetter Mfg. Co., Inc. and in no case shall Yetter Mfg. Co., Inc. or any seller of its products be responsible for any damages which may occur from the use of this information. All such risks shall be assumed by the user.

Yetter Manufacturing Co., Inc.
109 S. McDonough
Colchester, Illinois 62326
Phone: 800-447-5777
FAX: 309-776-3222
www.yetterco.com
E-mail: info@yetterco.com



[PDF Version](#)