

# **Planter Setup and Maintenance Checklist for Successful Stand Establishment**

*Simer Virk and Wesley Porter, University of Georgia, Tifton, GA*

The planter is one of the most important pieces of equipment in row-crop production. Correct planter maintenance during the offseason can help ensure minimum downtime to fix equipment issues in the field and helps in achieving optimum seeding performance during field operation, which should lead to maximum stand establishment. In most instances, planter maintenance and setup is often neglected, and results in costly mistakes in the field with uneven stand issues, which typically translates to poor crop yields. The following tips will help producers in evaluating their planters and make any necessary adjustments before heading to the field to reduce any downtime during planting and to help obtain uniform seed placement for successful stand establishment.

1. Check opening discs for correct sharpness and blade diameter. Replace disc openers if they are worn by more than 0.5 inches from the original diameter. Diameter should not be less than 13½ inches.
2. Evaluate the depth-gauge arm and wheel. The gauge-wheel should not run tight against the disc and can be adjusted with shim washers or bushings if needed.
3. Check for play in the parallel-arm pivot points. Most planters have excessive play in these points, resulting in the planter unit nose-diving. Replace bushings and bolts if there is any wear.
4. Remove seed meter covers every year and examine them for any worn or damaged parts, vacuum seals, and other components. Replace worn or damaged parts if needed.
5. Have seed meters tested every 1 or 2 years or every 300 to 400 acres. Seed meters should be checked on a test stand every year to check meter performance before actual field planting.
6. Assess seed firmers and adjust the tension bolt if needed. Worn seed firmers should be replaced as needed. Seed firmers can be beneficial in certain soil types to ensure adequate seed-to-soil contact.
7. Ensure that closing wheels are perfectly aligned behind the double-disc opener so that they close evenly on either side of the trench.
8. Check all the drive chains, chain idlers and bushings, and replace if worn. Chains should be snug and rust-free. Lubricating at the beginning and end of each season will make for longer chain life.
9. Check that seed tubes are in good shape and free of obstructions. Replace tubes that are cracked or have worn edges.

10. Make sure all planter drivelines and chains turn freely without jumping or inducing vibration to achieve the most uniform seed placement. Spend time on spinning the drives to ensure everything turns freely.
11. Make sure to level the planter before planting. Toolbar must be horizontal with the ground when planter is in operation. This is one of the most important adjustments especially in no-till conditions.
12. Adjust the row-unit down pressure so that you can barely turn the gauge-wheel with one hand while planter is in the ground. Make sure there is sufficient downforce on the closing discs to close the trench.
13. Set the appropriate depth for the crop being planted, and check depth setting both on a hard surface and once the planter is taken into the field.
14. Consult the operator's manual for recommended settings on most of the planter components. All these settings should be checked to ensure maximum planter performance in the field.

