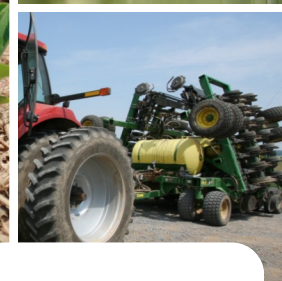


## Planter checks in field

- ✓ **Planter Level** – Bottom of toolbar 20" from ground. Parallel arms should be horizontal. Unit should not be crooked. Complete planter needs to be level.
- ✓ **Seed Spacing** – Set seed depth handle front as far as possible. This will lay seed on top of ground. Tie closing wheels and seed firms up off of the ground. Drop planter and drive 20 or 30 feet. For 30" row, measure 17'5". Count seeds. Your seed count in 17'5" is how many thousand per acre you're planting. Do this 2 or 3 times, and take average. For 28" rows-18'8". For 24" rows-21'10".
- ✓ **Seed Depth** – 1 ½"-2" is ideal. 2"-3" in very dry conditions. Never at a depth less than 1 ½". Depth handle moved front is shallow, back deeper.
- ✓ **Dropping Seed** – Make sure each unit is dropping seed when starting each field.
- ✓ **Closing Wheels** – Closing wheels shouldn't run in seed trench. Match rubber, cast, or spike to field conditions. Firm without over firming.
- ✓ **Coulter Blade Alignment** – To line up with seed disc, adjust with shims.
- ✓ **Unit Down Pressure Springs** – Check and adjust to field conditions.
- ✓ **Oil Chains** – Do this daily. Grease depth wheel arm twice daily. 1 tsp. graphite in each hopper every 6 bushel per row.

## Electrical/seed monitor checks

- ✓ **Wiring Harness** – Inspect routing. Secure as needed. Check cables/connectors for damage or corrosion. Operate control console functions.
- ✓ **Sensors (Electronic Seed Monitor)** – Check the distance sensors, seed tube sensors, and shaft rotation sensors.



NO-TILL  
TIPS

A quick reference guide  
for the no-till farmer

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Tips compiled by Leroy Bupp with information from , *Pequea Planter* checklist, *Pioneer Seed* newsletter and no-till farmer experience. For more information, visit the PA No-Till Alliance website at [panotill.org](http://panotill.org) or contact us at 717-635-2320 or 116 Pine Street, 5th Floor, Harrisburg, PA 17101.





## Successful opening and closing the seed slot with no-till

Planter tune-up is key to accurate seed placement. Is your corn planter ready? There are a few critical parts to check that could help to ensure good seed-to-soil placement and emergence. Below are just a few common concerns and some good things to check before going to the field in the spring.

- ✓ **Planter hitched too low and tipping unevenly front to back.** This causes the seed tube to angle forward and could result in seed flying out the seed tube instead of gently dropping into the furrow. The hitch should be set so the planter's toolbar is level to even slightly higher front to back. This ensures proper seed drop and accurate seed placement into the furrow.
- ✓ **Bushings in parallel arms** should not allow units to be picked up manually. Replace bushings if this is the case. Units should not move from side to side.
- ✓ **Depth of no-till coulters** should be  $\frac{1}{4}$  inch shallower than the disc opening. A good test is to set the planter disc openers on a board. Coulters should spin freely.
- ✓ **Row Cleaner depth** should be set so that when the planter is running not all of the row cleaner units should be running; if they are, you might have them set too aggressively. Recommend using floating row cleaners with Treader (depth gauge) wheels. These row cleaners will not move soil but do move continuously.
- ✓ **Disc opener test to check wear.** Fold a piece of paper in half and slide it between the discs from the top. Do the same from the bottom. There should be a space of approximately  $2\frac{1}{2}$  to 3 inches where the paper doesn't touch. If this is not the case, then your disc openers could be worn and could cause a "W" instead of a clean "V" trench. This could cause uneven seed depth leading to uneven seed emergence.
- ✓ **Seed tubes should not have any play left to right.** These should be replaced annually! Even new seed tubes should be checked to make sure they are smooth inside. Any irregularities from the molded plastic should be filed down to prevent seed ricocheting off in various directions as it leaves the tube.
- ✓ **To check or adjust the press wheels, try this:** Set the planter down on a concrete floor and lightly score the floor. Then adjust the press wheels to an equal distance from the mark.

## Planter checks in shop

- ✓ **Meters-** Have tested every 1 or 2 years or every 300-400 acres. Change belts and brushes every 3 or 4 years. Take off plastic cover, replace if broken, check fingers.
- ✓ **Parallel Arms** – Make sure bolts are tight. Replace bushings and bolts if worn.
- ✓ **Seed Tube Guard** – Tube guard acts as inside disc scraper. 1" wide new. New guard comes with fins to protect tube. If worn too narrow, disc will rub seed tube. Make sure guard is fastened with 2 roll pins.
- ✓ **Seed Tube** – Bottom not frayed or broken. Check that the hook which is halfway up the tube is not broken.
- ✓ **Depth Gauge Arm & Wheel** – Wheel should rub against disc. Adjust with shim washers or threaded bushing. Replace arm if worn too much, with threaded arm and bushing. Arm can be bent if not worn too much. Bearing should not be wobbly or tight.
- ✓ **Seed firmer** – Adjust tension bolt if needed. Replace if worn. Over time, firmer will get round on bottom and will not do as good a job of pushing down seed.
- ✓ **Closing Arm & Wheels** – Bearings not wobbly or tight. Bottom of wheels  $1\frac{1}{2}$  to 2" apart. If wheel is too sloppy on arm, replace. Should not be able to shift R or L too much. If too much play, replace arm or bushing. If arm has  $\frac{3}{4}$ " hole, drill out, put in eccentric bushing. Arm can be replaced with update handle arm.
- ✓ **Spike Closing Wheels** should be  $2\frac{1}{4}$ " to  $2\frac{1}{2}$ " apart at bottom. One spike closing wheel against a regular closing wheel should be  $1\frac{7}{8}$ " apart. Be sure that all closing wheels are perfectly aligned behind the double disc openers so they are closing equally on either side of trench. Spikes and Posi closing wheels are recommended for closing the trench in tough conditions without causing compaction.
- ✓ **Liquid Pump** – Hoses should be pliable. Not dried out or stretched.
- ✓ **Chains** – Chain should be snug. Check spring tension. With planter raised completely, chain should be as short as possible. Spring should not be stretched out. Stretched too much can cause planter to drive harder resulting in slippage. Replace chains if stiff.
- ✓ **Chain Idlers** – Check all chain idlers and bushings. Replace if worn. Oil all chains. Grease all zerks.
- ✓ **Coulters** – New discs 16". Check springs. Bearings should not be wobbly or tight.