

Step 1: Start with the Tractor (This is best completed on a level concrete pad.)

- Front weights/ballast are most likely needed
- Rear tires
 - Same size? (Different brands may not be exact)
 - Same/adequate tire pressure
 - As simple as this sounds I have heard too many stories of inverters not performing correctly and it coming down to a difference in tractor tire pressure. Even small leaks in tires can cause major problems during the day!
- Draft arms/links
 - Level to tractor
 - Correct hitch pin size, any slack or movement here will be amplified throughout the rest of the inverter and can make it near impossible to set correctly.
- Top link
 - Inverter should rest (level) on front tip of blade and rear gauge wheels, if it does not adjust appropriately, then readjust once in the field for final leveling.

Step 2: Rear Gauge Wheels



- Check Tire Pressure! Similar to pressure on tractor tires, this is critical for proper depth and level setting
- Usually mounted with one or two holes showing in stem at top
- Adjust for level operation depending on field conditions

Step 3: Blades

**Step: 3
Blades**



- As we know last season seemed to finish off with dry conditions, meaning the blades were being worn down rapidly, and if you did not change them at the end of the season the inverter is probably due for new blades before you start the 2025 harvest season
- Bevel up or down?
 - This is going to depend on soil type, they are typically bevel up, but there are special cases where the blades may need to be inverted
- Plow standard – usually 9 – 13” off the row
- Frogs
 - 26” for most conditions (tends to cut cleaner and push less dirt than 30”)
 - 30” (for some twin row patterns if needed)

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- Adjust blade pitch to allow $\frac{3}{4}$ " clearance at rear of blade

Step 4: Coulters



- Check size/diameter of coulters (worn out?)
- Check bearings locked up/loose?
 - They should freely spin, but not wobble
- It is critical that the coulters are matched up to the row center
- Check spring tension and operate roughly two to three inches below the blade

Step 5: Rattler Conveyor



**Step: 5
Rattler
Conveyor**

- Bent bars?
- Bars installed backwards, are the teeth pointed in the correct direction?
- Clearance between rattler bars and vine lifters
 - Too little clearance will cause bunching
 - Too much clearance will cause vines to drop off and not be picked up
- When plows are at proper depth, rattler conveyor should just clear the ground
- New chains at 2 1/4", Older chains at 2 1/2" (distance from bottom of the rattler frame to the top of the chain)
- Rattler frame parallel to the 45-degree frame member
- Knocker wheels adjust as needed for more or less agitation depending on field conditions

Step 6: Guide Rods



**Step: 6
Guide Rods**

- Factory set
- Look for bent rods or issues with material flow
- May need periodic adjustment
- Measurements in owner's manual
- Newer machines have a decal showing proper rod location

Step 7: Inverters



- Belt/chain tension (wear)
- Bearings, universal joints

Step 8: Speed of Operation

- Generally, 2 – 3.5 MPH (may vary below or above this range depending on field conditions)
- PTO speed of approximately 70–75% of rated. The speed of the rattler conveyer should be slightly above ground speed.
- Vary ground vs PTO speed to find that “sweet spot”
- Top drive shaft of both PTO and hydraulic machines should be 100–110 rpm.

Things to watch out for when troubleshooting for issues in the field:

1. Blade depth too shallow.
2. Dull blades. Blades are dull when they do not cut cleanly through the taproot. If they push on the root, they will drag the plant.
3. Vine cutter springs too loose or coulters too dull.
4. Conveyor pickup running too high above the lifter rods.
5. Tractor RPM or hydraulic flow too fast.
6. Vine flow not synchronized with ground speed and conveyor speed.
7. Inverter not precisely aligned with the row (indicated by tap roots leaning left or right)

We hope this helps to have a simple list of things to run through and check before you start to head into the field. Below is a more succinct checklist with images to further demonstrate the steps above:

PEANUT INVERTER SET-UP CHECKLIST



UNIVERSITY OF GEORGIA
EXTENSION
Coffee County



Georgia
Peanut
Commission

→ Use RTK Guidance or Auto Steer --> Helps maintain tractor path and lowers losses by 10%

→ Check machine for missing or broken parts

→ Check sharpness of blades. Dull blades fail to cut the tap root.

→ Check tractor tire pressure and make sure it is the same as rear gauge wheels. These need to be the same size tires too.

→ Adjust the angle (depth) with top link width on digger. Blades need to be set at a slightly forward pitch and at a depth to cut tap root below pod zone.

→ Adjust blade angle and depth based on soil type and texture. Clay soils --> aggressive angle, Sandy soils --> less aggressive angle.

→ Digging speed based on field conditions.
Typical speed is 2 -and 3 mph.

→ Set rattler conveyor to the same speed or slightly higher than tractor speed.

→ Adjust conveyor depth so it picks up vines with its teeth and just clears the soil. If needed, adjust the knocker wheels up or down to regulate shaking.

**** Properly dug and inverted peanut plants will form a uniform, fluffy, well-aerated windrow with very few pods touching the soil. Adjust the settings as needed.****

No visible Root
Blade too close to pods



Long roots
Blade too deep



Consistent, Short Roots
Correct blade depth



Photos by NC State Extension Specialists Gary Roberson and Jason Ward

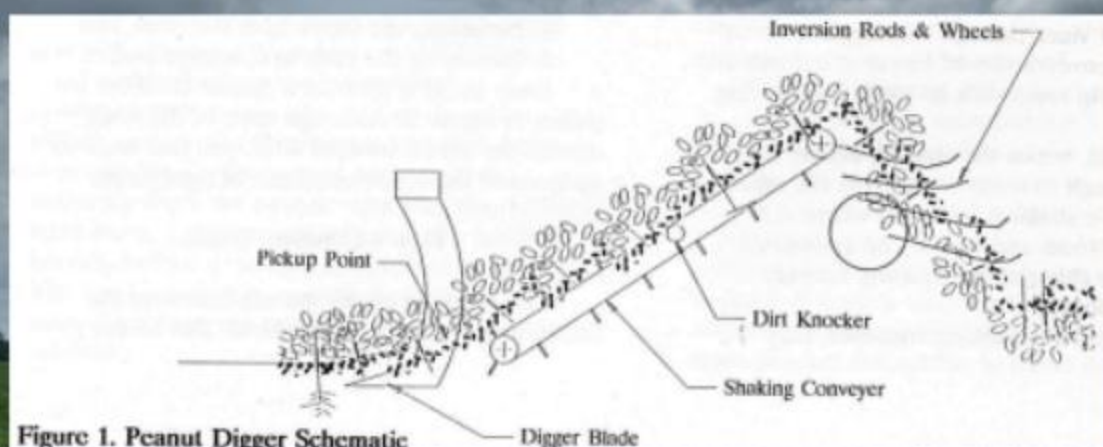


Figure 1. Peanut Digger Schematic

Illustration by UGA Cooperative Extension

HARVEST SEASON SAFETY

Turn off power before adjusting, servicing, or unclogging power-driven machinery.

Make sure loads being towed are properly hitched to the drawbar and that pins and chains are in place.

Display slow-moving vehicle signs on machinery being towed or driven on highways. Replace old signs if needed.

Make sure all warning lights are in good working condition, replace if needed.

Have shields and guards in place and maintained at all times.

Inspect and maintain all hydraulic hoses and couplings.

Make sure tires are properly inflated.

Inspect and maintain all machinery, equipment, and tools to keep them in proper working condition.

Have first aid kits available and develop an emergency plan.

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