

Corn Planter Maintenance

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Lawrence County**

Winter is the time to get your planter (and drill) ready for next year's season.

You can make a lot of money by doing this maintenance early, whereas waiting until the last minute with repairs can easily lead to yield losses of five percent or more because of delayed planting.

On the other hand, if your planter is not working right, you can expect a host of problems that will reduce yields. In no-till, good planter performance is even more crucial than in tilled fields because of the high penetration resistance, high amounts of crop residue at the soil surface, and rough soil surface.

Inadequate planting will result in uneven seed depth placement, inaccurate plant spacing, and/or open seed trenches.

Hair pinning is common if coulters and row cleaners don't work properly. Here are some tips to prepare your planter for the '03 season.

1. Level planter. A level planter is essential for accurate seed depth placement. By placing a level below the tongue you can easily check if it is horizontally aligned.

If you notice that the unit is either hanging back- or forwards, you need to lift or lower the tractor drawbar or adjust the clevis on the planter tongue.

The planter frame and planter units should also be level. Planter leveling should be done with full planter and fertilizer boxes.

2. Planter unit alignment. Unit alignment is essential for accurate seeding depth and uniform row spacing. Look across your planter units from the side.

Are they all at the same height? If one unit is either up or down compared to the others, it needs some work.

A common problem is that some bolts are loose. You should not be able to easily lift up your unit. The bolts that control the up and down movement and side-way movement should be very tight.

Washers may need to be switched from in- to outside or vice-versa.

3. Seed opener disks. If opener disks are worn too much, soil will fall in the opened slot and you lose seed depth control. The seed slot will form a "W" instead of a "V" slot.

If they have worn too much (see operator's manual), they need replacement. On a John Deere 7000, for example, disks should at least have a diameter of 13.5 inches (new disks have a 15-inch diameter).

Stick two business cards between the openers and move them as close together as possible.

The space between them should be 3 inches or more, depending on your planter type. Remove dirt that has accumulated between opener disks.

4. Coulters. Coulters in front of the double disk opener serve to cut crop residue and loosen some soil.

The coulters should not run deeper than the double disk opener, or you may lose seed depth control.

Check the diameter of the coulters, and replace them if needed. You should adjust the depth of worn coulters that are still usable (there are some bolts that allow you to do this).

5. Firming wheels. Check the pressure on the firming wheels.

The downward pressure should be adequate to close the seed trench without compacting soil above the seed (check operator manual). Replace worn or broken firming wheels.

6. Depth wheels. Depth wheels should run tight against the double-disks or soil may accumulate between them. Washers or adjusting bolts are used to obtain the desired result.

7. Depth of seed placement. Place the planter on a concrete floor to measure the difference between the bottom of the depth wheels and double-disk opener, and adjust to the desired depth.

8. Alignment of individual components. Look down each unit, or better, take a rope and pull it straight from the front coulters to the back press wheels. The firming wheels, slot openers, and coulters should all be in line.

9. Wear on chains and sprockets. Check the chains that drive the meters and their sprockets. If they are worn too much they need to be replaced. Excessive wearing of these parts will cause skips and doubles.

10. Clean metering units. Take metering units apart. Remove dirt and clean the hood with soapy water (no kerosene, diesel or oil should ever be used in metering units!).

Check for broken fingers in a finger-pickup meter, check the brush that wipes off excess seeds, and see if a groove has formed in the chromium house of the metering unit.

If the groove becomes large, and if brushes wear, you have a greater likelihood of doubles. Brushes need to be replaced at least every other year.

11. Elevator belt in metering unit. The belt (in finger pick-up meters) should be flexible, not have cracks in it, and should be clean. Clean with soapy water and let it dry before putting it back in.

Put the metering unit back together. The rubber belt should be placed back in the right direction, or your meter will malfunction.

You can lubricate with graphite (no oil or WD-40). The cap that holds the fingers should be tightened to the appropriate torque.

12. Calibrate meter. It is highly recommended to take your finger pick-up metering unit to the dealer to have it calibrated.

Take a bag of your own seed with you, and give him the correct speed at which you'll be driving.

13. Vacuum/air units. If you have a vacuum or air meter, check for leaks and appropriate vacuum or air pressure.

14. Check your fertilizer unit. Starter fertilizer coulters (if used) need to be 2 inches away from the double-disk opener. Hang a bucket below the tube of the unit, and do a test run of 175 feet in the field.

Weigh the fertilizer in the bucket, multiply by 100, and you have the fertilizer you'll put on in pounds per acre (at 30" row spacing). Adjust as needed.

Corn Maze Tips

**Don Watts
Newtown Graphics
Corn Maze Designs**

Thinking of having a corn maze event at your farm? It's a growing trend for farms to supplement their incomes with a corn maze. If you think it might be right for you, here are some tips for a successful event.

Location is important. Ideally, your corn maze should be near a major highway or within a short drive from a populated area. Consider where your potential customers will be coming from and how far they'll have to travel.

A location near a main road is also helpful with advertising. You can erect signs on your own property that will reach your potential customers on a daily basis.

Size matters. A maze about 4 to 7 acres in size is ideal. I've heard many complaints from customers who've become frustrated after being lost in an over-sized maze for too long a time under the blistering hot sun.

Bigger is not always better, especially for older and very young maze-go'ers. You might want to make a small "kids maze" next to your main corn maze.

Choosing a corn maze designer depends on your budget and how much work you're willing to do yourself. There are several good corn maze design firms who will do all the work for you, but expect to pay about \$5,000 to \$7,000 for their services. Using a designer who lets you do most of the work will usually cost under \$2,000.

If you need ideas for a design, farm animals and equipment, fruits and vegetables, state or local icons, and geometric designs are good choices.

Logos or mascots from local schools will draw the students and their families. Patriotic designs are very popular.

Be sure your parking area is a short walk from the maze. As an alternative, provide hayrides to the maze field. Your customers will enjoy the experience.

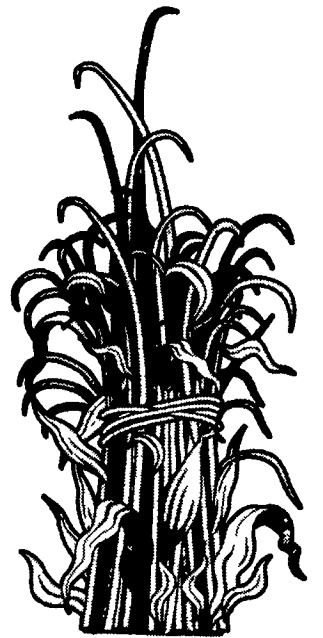
Consider renting an inflatable "moon-bounce" for kids or having pony rides.

Some other draws are face painting, food concessions, and pumpkin and gourd sales. Many of your customers will be looking to enjoy the whole "farm" experience. For more ideas, you might want to visit other corn mazes to see them in operation.

Always check local ordinances and confer with your insurance agent before holding an event on your property.

A corn maze is a great way for local residents to see farms in action. And of course, the additional income is always welcome.

Fall might seem like a long way off, but now is the time to start planning for a successful corn maze.

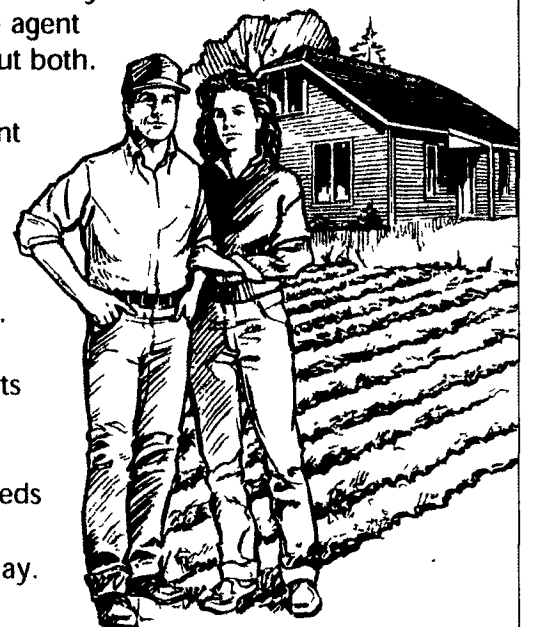


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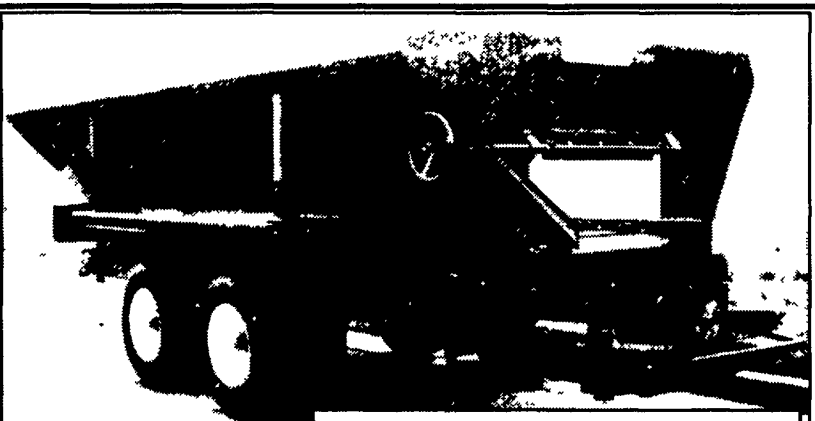
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