



Getting Your Planter Ready

Below are some items to check out on your planters before the planting starts. Planting is a critical time of year and you only get one chance to do it right for optimum crop potential. It is important to thoroughly go through your planter to make sure everything is in good working order. This sheet will cover items to look at on your planter to help guarantee good performance this spring.

The Planter Test Stand is the best place to get your John Deere MaxEmerge planter units looked at and all of items below are looked at there. If you were not able to make it to one, please take a look at the following information and check out your units to see what shape they are in.

MaxEmerge Planter Unit Parts to Examine:



Knockout Wheels

Aid in knocking the seed out of the seed pocket on the seed plate.

Worn out Knockout Wheel on top image.
Notice how the tips are bent and narrowed. In some cases, the tips may even be totally gone.

New Knockout Wheel on the bottom image.
See how the tips look in comparison to the worn out one above.



Brushes

Brushes help in knocking off doubles. Worn brushes can produce inconsistent seed drop.



Brush location.

Notice some widening/fraying where the seed passes through before it drops from the planter unit.

If you replace a brush, notice that the brush cut-out goes on top.

Be careful removing and replacing as the plastic brush holder tabs are fragile.

Inside Door.

Make sure door is in the down or closed position when planting beets.



Top Brush is a new, tightly bristled brush.

Brush on bottom is old and worn.

It shows widening/fraying of the brush bristles that can limit the capacity to remove seed doubles for consistency.

Seed Plates

Seed pocket (inside of plate) and Knockout wheel pocket (outside of plate), should not be worn or oblong.

- Inside seed pockets are normally pretty good.
- Outside Knockout wheel pockets typically show the most wear and can get oblong.

Watch for wear or grooves on the plate created on the outside edge on both

- Inside (planter unit side): creates seed inconsistency and friction. Possibly caused from seed being too tight against the planter unit housing.
- Outside (seal side): creates vacuum and seed drop consistency issues.



Outside of Seed Plate
Notice oblong Knockout wheel pockets.
Notice worn/grooved outside edge.

Inside of Seed Plate
Notice worn/grooved outside edge

Plate Replacement
On the new plate, use a 1/16 drill bit to poke out holes from the seed side of the plate out to insure they are not slightly plugged or too tight.



Seals

Keep vacuum consistent in the planter unit and among the planter units.



Seals

Look for any dents/depressions in the seal lip. A common place for this to occur is here.

Also be aware of any cuts or tears.

Look to see if the **seal lip** is “flat”, it should have some “spring/angle” in it to press against the plate and hold vacuum.

Seals should be replaced if any of these are noticed.

Seed Singulator

Make sure the seed singulator is set in the up or off position when planting beets.



Measuring Wear on John Deere Planter Double Disk Openers

The JD disks are 15" in diameter when new. If disks are less than 14.5" in diameter, they should be replaced. There are shims in the hub where the disks run that can be removed or added to reach the appropriate distance. Once the shims are all pulled out, and disks no longer meet correctly, it is time to replace the disks.



Excessive disk wear causes:

- Incorrect planting depth.
- Ridge of soil in the bottom of the furrow affecting seed placement, and possibly germination and emergence.

How to check for proper contact point of the disk openers:

1. Place business card in the top side of where the disks meet. Slide the card down until it stops and is "in the pinch".
2. Take another business card and slide in from the bottom, slide up until the card is "in the pinch".
3. Measure the distance between the 2 business cards. This distance should be 1.75 – 2.0 inches for proper performance. See image to left.

Proper Closer Wheel Separation Distance



The distance between the inside of the closer wheel (at the narrowest point) should have no more than a 0.75 – 1.0 inch gap for proper seed furrow closing performance.

Planter Preparation and Maintenance Checklist

- Have planter plate and vacuum chart available – page 7.
- Check that row width is at 22” with a “running” tape measure from the first to last row.
- Check that planter depth gauge wheels give the same depth across all disk openers. They may not all have the same setting to reach the same depth due to wear or inconsistencies. Mark the setting where they are all the same.
- Check that starter fertilizer equipment is calibrated and working properly.
- Calibrate insecticide applicator units.
- Check seed hoppers, drives and chains.
- Be sure disk openers are clean and turn freely.
- Be sure row markers are set properly or precision guidance system is ready.
- Plant at 3.0 to 4.5 mph for best results, slower for older plate planters.
- Check each row for press/closure wheel spring pressure, using a digital fish scale – Figure 1.
- Level the tool bar in the field – Figure 2.
- Check planting depth in the field – Figure 3.
- Select desired seed spacing found in the 2020 Sugarbeet Production Guide – Figure 4.
- Are press wheels set properly for sugarbeet row closure – Figure 5.
- Have tarp ready for covering seed and insecticide hoppers when it rains – Figure 6.



Figure 1



Figure 2



Figure 3



Figure 6



Figure 5

Factors Influencing Seed Spacing Choices

- Variety vigor
- Variety emergence potential
- Is the seedbed ideal, average, fair or poor
- Are crop residues excessive, about right, or too low to prevent blowing and erosion
- Is soil moisture excellent, good, fair or poor
- Insecticide method of application

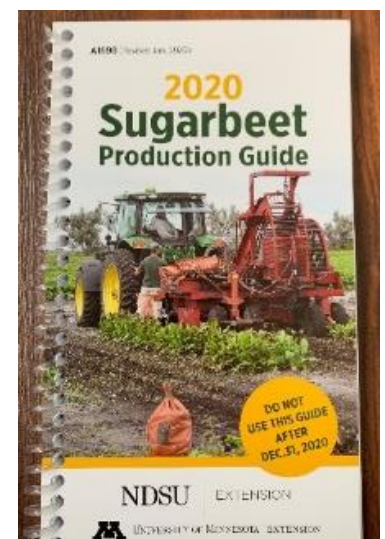


Figure 4

Planter Seed Plate and Vacuum Recommendations

2020	Seed Size	John Deere MAX-EMERGE Vacuum Planter	John Deere 71 Flex Plate (plastic) Planter
Betaseed	Mini Pellet	Medium/H 136445 (Preferred)- Large/A 51713	Orange (B-11-140MP)
	Regular Pellet	Large/A 51713 (Preferred) - Sorghum/A 43066	Light Green (B-12-160RP)
	Pro200	Sorghum/A 43066	-----
Crystal Beet Seed	Mini Pellet	Medium/H 136445 (Preferred) - Large/A 51713	Orange (B-11-140MP)
	Regular Pellet	Large/A 51713 (Preferred) - Sorghum/A 43066	Light Green (B-12-160RP)
	XTREME	Large/A 51713 - Sorghum/A 43066 (Preferred)	-----
Hilleshog	2M	Medium/H 136445	-----
	4M Regular Pellet	Large/A 51713 - Sorghum/A 43066	Light Green (B-12-160RP)
	S2	Sorghum/A 43066	-----
Seedex	Mini Pellet	Medium/H 136445 (Preferred) - Large/A 51713	-----
	Regular Pellet	Large/A 51713 (Preferred) - Sorghum/A 43066	Light Green (B-12-160RP)
	Large Pellet	Large/A 51713 - Sorghum/A 43066 (Preferred)	-----
Ses VanderHave	Mini Pellet	Medium/H 136445- Large/A 51713	Orange (B-11-140MP)
	Regular Pellet	Large/A 51713 - Sorghum/A 43066	Light Green (B-12-160RP)
	Large Pellet	Large/A 51713 - Sorghum/A 43066	-----

2020 RECOMMENDATIONS FOR JOHN DEERE MAX EMERGE PLANTER

Medium Plate – (H 136445)

Mini Pellets/2M: 2-3 Inches of Vacuum

Regular Pellets/4M: 2-3 Inches of Vacuum

Large Plate – (A 51713)

Mini Pellets: 2-3 Inches of Vacuum

Regular Pellets: 2-3 Inches of Vacuum

XTREME: 3-4 Inches of Vacuum

LP – 2-3 Inches of Vacuum

Sorghum Plate – (A 43066)

Mini Pellets Not Recommended

Regular Pellets: 3-4 Inches of Vacuum

Pro200: 5-7 Inches of Vacuum

XTREME: 3-5 Inches of Vacuum

S2: 3-4 Inches of Vacuum

LP – 3-4 Inches of Vacuum

2020 RECOMMENDATIONS FOR Monosem NG+ PLANTER

4016

Mini Pellet

2M

4020

Mini & Regular Pellet

4M

XTREME (watch carefully with this plate)

4025 ** (Most universal plate to use) **

Regular Pellet

LP

XTREME

Pro200

S2

3622

Regular Pellet

LP

XTREME

Pro200

S2

Case Early Riser 2020

Seed Type	Planter Plate	Vacuum Setting	Singulator Setting
2M	8020/6020	16	3
Mini Pellets	8020/6020	18	3
Mini Pellets	8023/6023	20	3
Regular Pellets	8020/6020	22	3
Regular Pellets	8023/6023	20	3
Pro200	8020/6020	30	8
Pro200	8023/6023	22	4
XTREME	8020/6020	30	8
XTREME	8023/6023	20	4
S2	8020/6020	30	8
S2	8023/6023	20	4
Lg. Pellet	8020/6020	30	8
Lg. Pellet	8023/6023	22	4
2M	8023/6023	Not Recommended	

*Use 1.75mm plates for mini pellets only

