

# Planter Operation, Maintenance and Storage

Establishing an optimal plant population in late April or early May is a critical Gold Standard Agronomy practice leading to profitable sugarbeet production (see Fact Sheet). Proper operation of a well maintained and cared for planter is essential to effective stand establishment. Growers must give careful attention to details of planter storage and maintenance if they expect it to operate properly. Planters are precision tools... treat them as such. Planter downtime can seriously delay planting. Planter malfunction or incorrect operation can significantly reduce stand establishment.



## Planter off Season Storage

- Clean planter with a pressure washer or high pressure air especially important to wash off all starter fertilizer to prevent corrosion
- Remove plates and store on a wood dowel hung horizontally
- Remove seed plate doors – do not stack on top of each other, use original boxes for storage
- Release tension on press wheel springs
- Check for missing insecticide spoons or banders
- Make a list of needed repairs and parts
- Mouse proof seed tubes (fabric softener sheets in seed hoppers)
- Save all new planter plate boxes for warranty use referral
- Keep track of how many acres are seeded on a set of plates (write the date of purchase in owners manual or on the plates themselves).

Following these steps should eliminate nearly all warped plates, damaged doors and hinges, ruined gaskets and metal corrosion by starter fertilizer. These procedures will extend life of the planter and seeding mechanism and maintain optimum stand establishment.

## Preparing Seed Hoppers for a Test Stand Clinic

- Number each seeding unit
- Number each plate for each unit
- Number each door for each seeding unit
- Mark position of each plate when installed on seed unit
- If new plates were installed, use 1/16 inch drill bit to clean out seed plate holes (drill from the back side of the plate)
- Ensure the proper brush is in use
- Make sure knocker wheels are installed not wiper bars
- Ensure the black plastic door inside the unit is in the closed position
- Clean each seed tube and seed hopper with high pressure air
- Leave hopper lids off (leave at home)
- Keep planter units dry during transport to test stand locations
- Don't forget planter plates for each seed size ordered and to be evaluated
- Bring vacuum gauges for calibration

## Planter Preparation and Maintenance Checklist

- Have planter plate and vacuum chart available – page 3
- Is starter fertilizer equipment 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 wheel 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 – 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

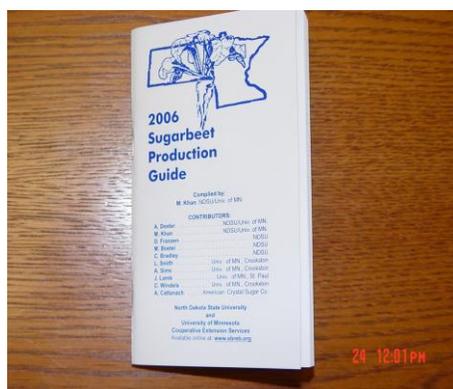


Figure 4



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 6

**RECOMMENDATIONS  
FOR JOHN DEERE  
MAXEMERGE PLANTER**

**Small Plate – (A 51712)**

Small Seed: 1.5 Inches of Vacuum  
Mini Pellets: 3-4 Inches of Vacuum  
Regular Pellets: Not Recommended

**Medium Plate – (H 136445)**

Medium Seed: 3/4-1 Inch of Vacuum  
Large Seed: 1-2 Inches of Vacuum  
Mini Pellets: 2 Inches of Vacuum  
Regular Pellets: 2 Inches of Vacuum  
Pro25: 3/4 – 1 Inch of Vacuum  
Pro50: 2 Inches of Vacuum  
Pro100: 2 Inches of Vacuum  
S1: 2-3 Inches of Vacuum  
Agracoat: 2-3 Inches of Vacuum

**RECOMMENDATIONS  
FOR JOHN DEERE  
MAXEMERGE PLANTER**

**Large Plate – (A 51713)**

Small and Medium Seed Not Recommended  
Large Seed: 1-2 Inches of Vacuum \*  
Extra Large Seed: 1½-2 Inches of Vacuum  
Mini Pellets: 2-3 Inches of Vacuum  
Regular Pellets: 2-3 Inches of Vacuum  
Pro50: 2 Inches of Vacuum  
Pro100: 2-3 Inches of Vacuum  
Agracoat: 2-3 Inches of Vacuum  
S2: 2-3 Inches of Vacuum  
\* Large seed not recommended by SESVanderHave

**Sorghum Plate – (A 43066)**

Mini Pellets Not Recommended  
Regular Pellets: 3-4 Inches of Vacuum  
Jumbo Pellets: 5-8 Inches of Vacuum  
Pro200: 5-8 Inches of Vacuum  
Pro100: 3-4 Inches of Vacuum  
2 Extra Large: 5-8 Inches of Vacuum  
S2: 3-4 Inches of Vacuum  
Agracoat'S': 5-8 Inches of Vacuum

2007	Seed Size	John Deere MaxEmerge Vacuum Planter	John Deere 71 Flex Plate (plastic) Planter
Crystal Beet Seed Hilleshog SESVanderHave Holly Seedex	Small	Small (A 51712) - Medium (H 136445)	Red (B-9-083)
	Medium	Medium (H 136445)	Blue (B-10-105)
	Large	Medium (H 136445) - *Large (A 51713)	Green (B-11-105)
	X-Large	Large (A 51713)	Brown (B-12-115)
	Mini-Pellet	Small (A 51712) - Medium (H 136445)- Large (A 51713)	Orange (B-11-140MP)
All Companies	Regular Pellet	Medium (H 136445) - Large (A 51713) - Sorghum (A 43066)	Light Green (B-12-160RP)
Betaseed	Pro25	Medium (H 136445)	Blue (B-10-105)
	Pro50	Medium (H 136445) - Large (A 51713)	Tan(B-11-115)-Orange(B-11-140MP)
	Pro100	Medium (H 136445) - Large (A 51713) - Sorghum (A 43066)	Light Green (B-12-160RP)
	Pro200	Sorghum (A 43066)	-----
Crystal Beet Seed	Jumbo Pellet	Sorghum (A 43066)	-----
	2 Extra Large	Sorghum (A 43066)	-----
Seedex	Agracoat	Medium (H 136445) - Large (A 51713)	-----
	Agracoat'S'	Sorghum (A 43066)	-----
Hilleshog	S1	Medium (H 136445)	-----
	S2	Large (A 51713) - Sorghum (A 43066)	-----

\* Large Plate not recommended by SESVanderHave for large seed

**RECOMMENDATIONS  
FOR  
MonoSem NG+ PLANTER**

**4016**

Small, Medium, Large, Extra Large Seed  
Mini Pellet  
Pro25, Pro50, Pro100  
Agracoat  
S1

**4020**

Large & Extra Large Seed  
Mini & Regular Pellet  
Pro25, Pro50, Pro100  
Agracoat  
S1 & S2

**RECOMMENDATIONS  
FOR  
MonoSem NG+ PLANTER**

**4025**

Large, Extra Large, 2XL Seed  
Mini, Regular, Jumbo Pellets  
Pro50, Pro100, Pro200

**3622**

2 XL Seed  
Regular & Jumbo Pellet  
Pro100 & Pro200  
Agracoat'S'  
S2