

# SEED METER OPERATION/MAINTENANCE

## GENERAL PLANTING RATE INFORMATION

These planting rate charts are applicable to KINZE® Model 3200 EdgeVac® Econo-Fold® Planters. See “Tire Pressure” for recommended tire pressures.

**IMPORTANT: The sprocket combinations listed in these charts are best for average conditions. Changes in sprocket combinations may be required to obtain desired planting population. TO PREVENT PLANTING MISCALCULATIONS, MAKE FIELD CHECKS TO BE SURE YOU ARE PLANTING AT THE DESIRED RATE.**

The size and shape of seed may affect the planting rate.

The following seed discs are available for use with the KINZE® EdgeVac® Seed Metering System:

**Corn/Popcorn:** 39 cell. Light blue color-coded. For all seed corn grades from 35 to 70 pounds per 80,000 kernel count unit or popcorn seed size range from 2210 to 4200 seeds per pound. Also used for No. 1 sunflower seeds. *When planting popcorn this seed disc requires use of seed baffle. See “Seed Meter” on pages 7-2 and 7-3 for additional information.*

**Low-Rate Corn/Popcorn:** 24 cell. Light green color-coded. For all seed corn grades from 35 to 70 pounds per 80,000 kernel count unit or popcorn seed size range from 2210 to 4200 seeds per pound. Also used for No. 1 sunflower seeds. *When planting popcorn this seed disc requires use of seed baffle. See “Seed Meter” on pages 7-2 and 7-3 for additional information.*

**Soybean:** 60 cell. Black color-coded. Seed size range from 2200 to 4000 seeds per pound. *This seed disc requires use of seed baffle. See “Seed Meter” on pages 7-2 and 7-3 for additional information.*

**Soybean, High-Rate:** 120 cell. Dark blue color-coded. Seed size range from 2200 to 4000 seeds per pound. *This seed disc requires use of seed baffle. See “Seed Meter” on pages 7-2 and 7-3 for additional information.*

**Milo/Grain Sorghum:** 60 cell. Yellow color-coded. Seed size range from 10,000 to 20,000 seeds per pound. *This seed disc requires use of seed baffle and cleanout brush. See “Seed Meter” on pages 7-2 and 7-3 for additional information.*

**Hill-Drop Cotton, Acid-Delinted (3 Seeds Per Cell):** 20 cell. Brown color-coded. Cotton seed size range from 3800 to 4400 seeds per pound. *This seed disc requires use of cleanout brush w/ball-type ejector. See “Seed Meter” on pages 7-2 and 7-3 for additional information.*

**Small Hill-Drop Cotton, Acid-Delinted (3 Seeds Per Cell):** 20 cell. Grey color-coded. Cotton seed size range from 4200 to 5200 seeds per pound. *This seed disc requires use of cleanout brush w/ball-type ejector. See “Seed Meter” on pages 7-2 and 7-3 for additional information.*

**Cotton, Acid-Delinted/Small Dry Edible Bean:** 54 cell. Dark green color-coded. Cotton seed size range from 3800 to 4400 seeds per pound or dry edible bean seed size range from 1200 to 2500 seeds per pound. *This seed disc requires use of cleanout brush w/ball-type ejector. See “Seed Meter” on pages 7-2 and 7-3 for additional information.*

**Small Cotton/Sunflower:** 54 cell. White color-coded. Cotton seed size range from 4200 to 5200 seeds per pound or sunflower seed sizes No. 2, 3 and 4. *This seed disc requires use of cleanout brush w/ball-type ejector. See “Seed Meter” on pages 7-2 and 7-3 for additional information.*

**Large Dry Edible Bean:** 54 cell. Tan color-coded. Seed size range from 800 to 1200 seeds per pound.

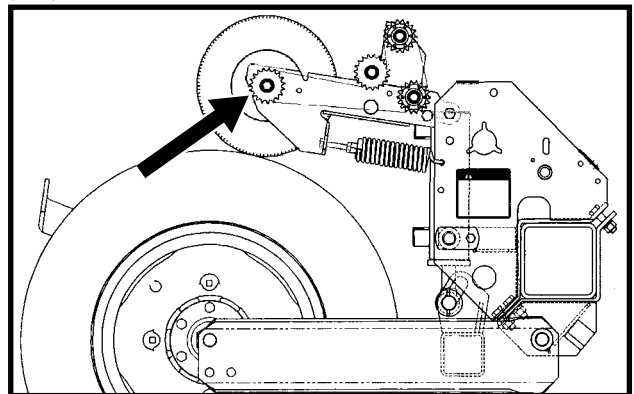
**NOTE: Due to a multitude of variables, seed spacing can be adversely affected at speeds above 5.5 MPH.**

**NOTE: See “Seed Meter Singulator Brush And Vacuum Level Adjustments” on page 7-23.**

**NOTE: 15, 19 and 38 tooth drive sprockets are NOT applicable to all rate charts. Check chart titles to ensure the proper rate chart is selected. 15 and 19 tooth sprockets require use of 92 pitch No. 40 chains and 38 tooth sprockets require use of 104 pitch No. 40 chains.**

**NOTE: Planting rates over 250,000 seeds/acre are not recommended. See subject seed disc and/or drive ratio on pages 7-11 and 7-13.**

(EF81)

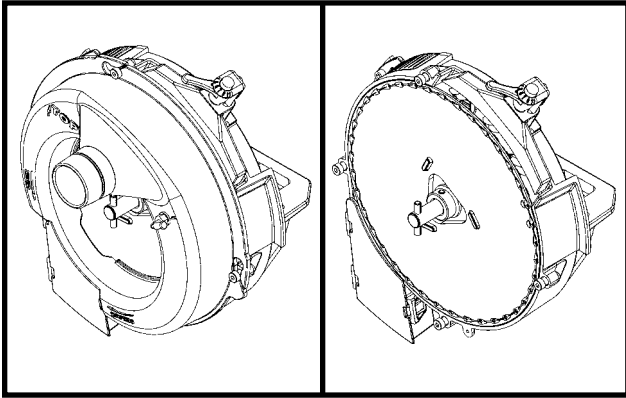


**NOTE: Contact wheel drive sprocket references in each rate chart title.**

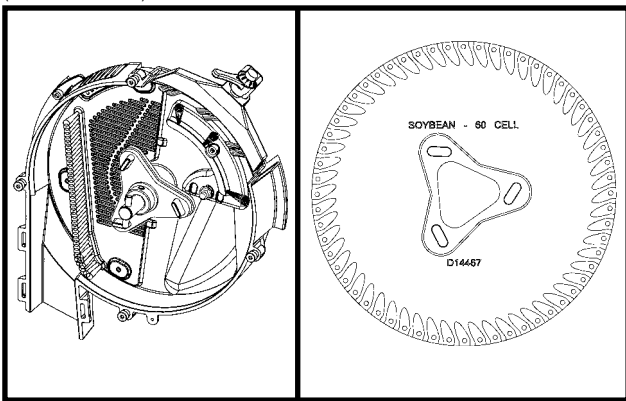
# SEED METER OPERATION/MAINTENANCE

## SEED METER

(METR71/METR71a)

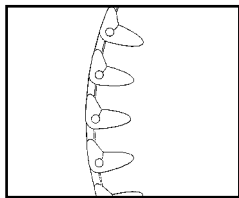


(METR70/D14467a)

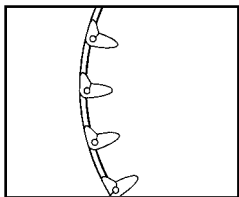


The seed discs below and at right are available for use with the KINZE® EdgeVac® Seed Metering System:

**Corn/Popcorn:** 39 cell. For all seed corn grades from 35 to 70 pounds per 80,000 kernel count unit. Popcorn seed size range from 2210 to 4200 seeds per pound. Also used for No. 1 sunflower seeds. (*Light blue color-coded.*) (D14465)

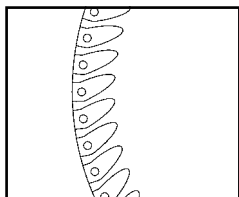


**Low-Rate Corn/Popcorn:** 24 cell. For all seed corn grades from 35 to 70 pounds per 80,000 kernel count unit. Popcorn seed size range from 2210 to 4200 seeds per pound. Also used for No. 1 sunflower seeds. (*Light green color-coded.*) (D16734a)

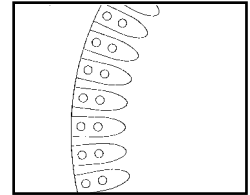


**Soybean:** 60 cell. Seed size range from 2200 to 4000 seeds per pound. (*Black color-coded.*)

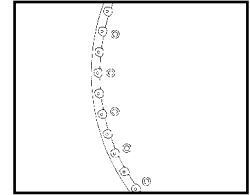
(D14467a)



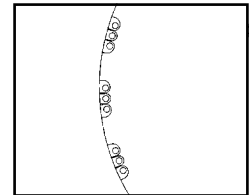
**Soybean, High-Rate:** 120 cell. Seed size range from 2200 to 4000 seeds per pound. (*Dark blue color-coded.*) (D14468a)



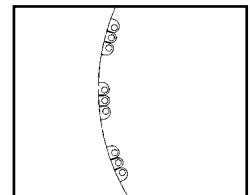
**Milo/Grain Sorghum:** 60 cell. Seed size range from 10,000 to 20,000 seeds per pound. (*Yellow color-coded.*) (D17050)



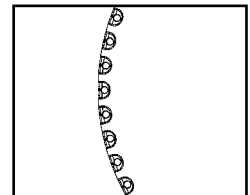
**Hill-Drop Cotton, Acid-Delinted (3 Seeds Per Cell):** 20 cell. Cotton seed size range from 3800 to 4400 seeds per pound. (*Brown color-coded.*) (D17187)



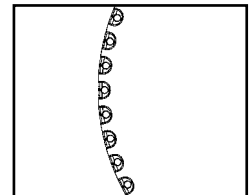
**Small Hill-Drop Cotton, Acid-Delinted (3 Seeds Per Cell):** 20 cell. Cotton seed size range from 4200 to 5200 seeds per pound. (*Grey color-coded.*) (D17187)



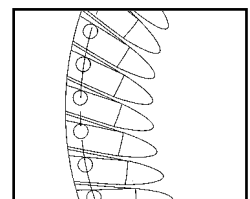
**Cotton, Acid-Delinted/Small Dry Edible Bean:** 54 cell. Cotton seed size range from 3800 to 4400 seeds per pound. Dry edible bean seed size range from 1200 to 2500 seeds per pound. (*Dark green color-coded.*) (D17186)



**Small Cotton/Sunflower:** 54 cell. Cotton seed size range from 4200 to 5200 seeds per pound. Sunflower seed sizes No. 2, 3 and 4. (*White color-coded.*) (D17186)



**Large Dry Edible Bean:** 54 cell. Seed size range from 800 to 1200 seeds per pound. (*Tan color-coded.*) (D14477)



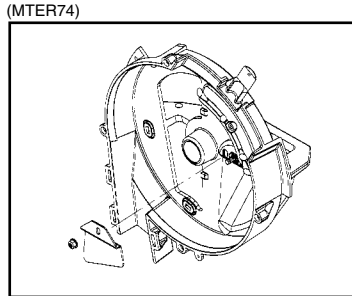
Install the selected seed disc. Position the vacuum cover on the meter by aligning the keyhole slots over the bolt heads. Push the cover on the meter and turn counter clockwise to lock in place. **See following page for additional components required with specific seed discs.**

# SEED METER OPERATION/MAINTENANCE

**NOTE:** Use of damaged seed or seed containing foreign material will cause plugging of seed disc orifices and require more frequent seed meter cleanout to prevent underplanting.

## **SEED BAFFLE**

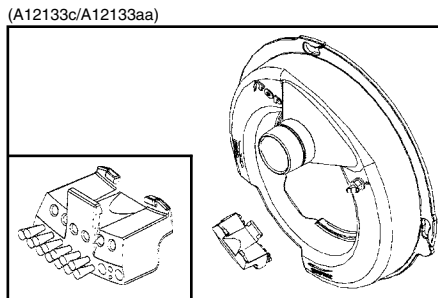
- Milo/Grain Sorghum
- Soybeans
- Popcorn



The **seed baffle** is designed to prevent excessive seed in the meter from restricting air flow through the seed. **Used with 60 Cell Milo/Grain Sorghum Disc, 60 Cell Soybean Disc, 120 Cell High-Rate Soybean Disc and 39 Cell and 24 Cell Popcorn Discs.**

## **CLEANOUT BRUSH**

- Milo/Grain Sorghum

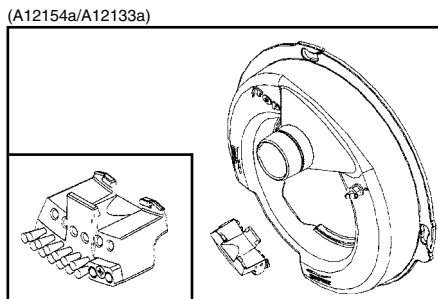


The **cleanout brush** is designed to remove foreign material and seed remnants to help prevent plugging of seed disc orifices.

**Used with 60 Cell Milo/Grain Sorghum Disc.**

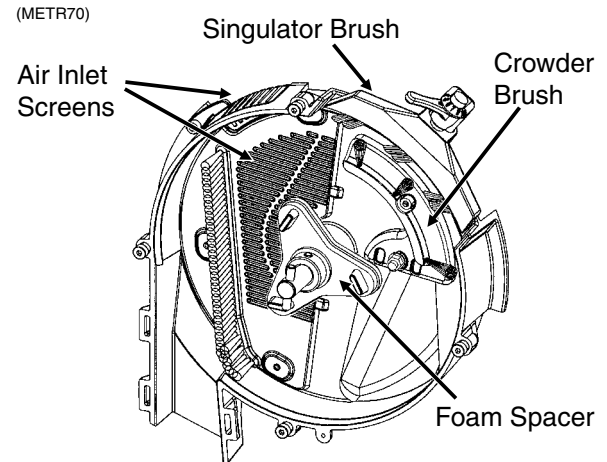
## **CLEANOUT BRUSH W/BALL-TYPE EJECTOR**

- Cotton
- Small Edible Beans
- No. 2, No. 3 And No. 4 Sunflowers



The **cleanout brush w/ball-type ejector** is designed to eject seed remnants from the seed disc orifices. **Used with 20 Cell Hill-Drop Cotton, Acid-Delinted (3 Seeds Per Cell) Discs; 54 Cell Acid-Delinted Cotton/Small Dry Edible Bean; and Small Cotton/Sunflower Discs.**

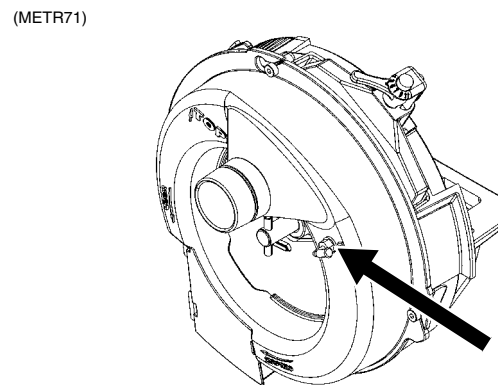
**NOTE:** Foreign material in seed disc orifices, such as seed chips, hulls, stems, etc., may affect seed delivery. Clean seed is required to ensure accurate seed metering from the vacuum seed meter. Seed discs should be removed daily to check for buildup of foreign material in the seed disc orifices.



The crowder brush aids in the singulation of small flat seeds by (a) crowding seeds to the outer perimeter of the seed disc and (b) orienting seeds to allow the singulator brush to be more effective.

The air inlet screens allow air to enter the system and aids in keeping field residue or other foreign material out of the meter.

The foam spacer gently preloads the seed disc against the vacuum cover when no vacuum is present.



The 3/16" hose barb elbow on the seed meter vacuum cover allows measurement of vacuum level at each meter. A customer-supplied vacuum gauge is required.

See "Seed Meter Singulator Brush And Vacuum Level Adjustments", "Seed Meter Maintenance" and "Preparation For Storage" for additional EdgeVac® Seed Metering System information.

# SEED METER OPERATION/MAINTENANCE

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One tablespoon of **powdered graphite** should be mixed with the seed each time the hoppers are filled. Regular graphite use will prolong the life of the vacuum seed meter components, improve seed spacing, and may reduce buildup of seed treatments. Apply graphite around the outer perimeter of the hopper as shown below.

D05300104b



**NOTE: DO NOT apply graphite only in the center of the hopper. It will filter too quickly through the seed and not distribute as evenly as desired.**

**NOTE: Additional graphite or talc may be required to retard buildup of seed treatments on meter components. More frequent cleaning of monitor seed tubes may be necessary due to use of additional graphite or talc.**

**Talc seed lubricant** may be used in lieu of or in addition to graphite to improve seed release from the meter. Fill hopper  $\frac{1}{2}$  full of seed, add  $\frac{1}{4}$  cup of talc and **mix thoroughly**. Finish filling hopper, add another  $\frac{1}{4}$  cup of talc and **mix thoroughly**. (For sunflowers, increase talc amount from  $\frac{1}{4}$  cup to  $\frac{1}{2}$  cup.) Adjust rate of talc use as needed so all seeds are coated, while avoiding a buildup of talc in the bottom of the hopper. Humid conditions and/or small sized seeds with extra seed treatment may require as much as one cup of talc per hopper to maintain meter performance.

**NOTE: Some liquid seed treatments or inoculants may create buildup on the seed disc or brushes. Check frequently for proper population and/or seed delivery when using any liquid seed treatment.** All seed treatment should be thoroughly mixed with the seed per the manufacturers' recommendations. Seed treatment dumped on top of the seed after the hopper is filled, and not mixed properly may cause bridging of the seed in the meter, reducing population or stopping the meter from planting.

## SEED METER CLEANOUT

To maintain genetic purity, thorough seed meter cleanout is important.

To clean the seed meter, disengage the seed drive and remove the seed hopper and meter. Lay the hopper on its right side.

Disassemble seed meter by rotating vacuum cover clockwise to align keyhole slots with bolt heads. Lift off cover. Remove seed disc. Empty the meter and hopper by allowing the seed to run out of the meter. Inspect brushes in meter to ensure all seed is removed. Replace seed disc and install vacuum cover.

**NOTE: Use of damaged seed or seed containing foreign material will cause plugging of seed cell orifices and require more frequent seed meter cleanout to prevent underplanting.**

# SEED METER OPERATION/MAINTENANCE

**PLANTING RATES FOR CORN/POPCORN 39 CELL DISC  
15 TOOTH CONTACT WHEEL DRIVE SPROCKET (See Page 7-1)  
APPROXIMATE SEEDS/ACRE FOR VARIOUS ROW WIDTHS**

30" Rows	36" Rows	38" Rows	Transmission Sprockets		Recomm. Speed Range (MPH)	Average Seed Spacing In Inches
			Drive	Driven		
24,788	20,656	19,569	15	28	4 to 6	8.4
25,706	21,421	20,294	15	27	4 to 6	8.1
26,694	22,245	21,075	15	26	4 to 6	7.8
27,762	23,135	21,918	15	25	4 to 6	7.5
28,093	23,411	22,178	17	28	4 to 6	7.4
28,919	24,099	22,831	15	24	4 to 6	7.2
29,133	24,278	23,000	17	27	4 to 6	7.2
30,176	25,147	23,823	15	23	4 to 6	6.9
30,254	25,211	23,884	17	26	4 to 6	6.9
31,398	26,165	24,788	19	28	4 to 6	6.7
31,464	26,220	24,840	17	25	4 to 6	6.6
32,561	27,134	25,706	19	27	4 to 6	6.4
32,775	27,312	25,875	17	24	4 to 6	6.4
33,813	28,177	26,694	19	26	4 to 6	6.2
34,200	28,500	27,000	17	23	4 to 6	6.1
35,165	29,305	27,762	19	25	4 to 6	5.9
36,529	30,441	28,839	15	19	4 to 6	5.7
36,631	30,526	28,919	19	24	4 to 6	5.7
38,008	31,673	30,006	23	28	4 to 6	5.5
38,223	31,853	30,176	19	23	4 to 6	5.5
39,415	32,846	31,117	23	27	4 to 6	5.3
39,660	33,050	31,311	24	28	4 to 6	5.3
40,827	34,022	32,232	15	17	4 to 6	5.1
41,129	34,274	32,470	24	27	4 to 6	5.1
41,400	34,500	32,684	17	19	4 to 6	5.1
42,569	35,474	33,607	23	25	4 to 6	4.9
42,965	35,804	33,920	26	28	4 to 6	4.9
44,342	36,952	35,007	23	24	4 to 6	4.7
44,419	37,016	35,068	24	25	4 to 6	4.7
44,618	37,181	35,225	27	28	4 to 6	4.7
46,270	38,559	36,529	23	23	4 to 6	4.5
47,984	39,987	37,882	28	27	4 to 6	4.4
48,050	40,042	37,934	27	26	4 to 6	4.4
48,282	40,235	38,117	24	23	4 to 6	4.3
49,830	41,525	39,339	28	26	4 to 6	4.2
49,972	41,643	39,452	27	25	4 to 6	4.2
50,294	41,912	39,706	25	23	4 to 6	4.2
51,714	43,095	40,827	19	17	4 to 6	4.0
52,054	43,378	41,095	27	24	4 to 6	4.0
52,306	43,588	41,294	26	23	4 to 6	4.0
53,982	44,985	42,617	28	24	4 to 6	3.9
54,317	45,264	42,882	27	23	4 to 6	3.8
56,011	46,676	44,220	23	19	4 to 6	3.7
56,329	46,941	44,470	28	23	4 to 6	3.7
58,447	48,706	46,142	24	19	4 to 6	3.6
60,882	50,735	48,065	25	19	4 to 6	3.4
62,601	52,167	49,422	23	17	4 to 6	3.3
63,317	52,764	49,987	26	19	4 to 6	3.3
65,323	54,436	51,571	24	17	4 to 6	3.2
65,753	54,794	51,910	27	19	4 to 6	3.2
68,045	56,704	53,719	25	17	4 to 6	3.1
68,188	56,823	53,832	28	19	4 to 6	3.1
70,766	58,972	55,868	26	17	4 to 6	3.0
70,948	59,123	56,011	23	15	4 to 6	2.9
73,488	61,240	58,017	27	17	4 to 6	2.8

**IMPORTANT: See "General Planting Rate Information" and "Checking Seed Population" pages for additional information. Always check seed population in the field to ensure planting rates are correct.**

# SEED METER OPERATION/MAINTENANCE

**PLANTING RATES FOR CORN/POPCORN 39 CELL DISC  
19 TOOTH CONTACT WHEEL DRIVE SPROCKET (See Page 7-1)  
APPROXIMATE SEEDS/ACRE FOR VARIOUS ROW WIDTHS**

30" Rows	36" Rows	38" Rows	Transmission Sprockets		Recomm. Speed Range (MPH)	Average Seed Spacing In Inches
			Drive	Driven		
31,398	26,165	24,788	15	28	4 to 6	6.7
32,561	27,134	25,706	15	27	4 to 6	6.4
33,813	28,177	26,694	15	26	4 to 6	6.2
35,165	29,305	27,762	15	25	4 to 6	5.9
35,584	29,653	28,093	17	28	4 to 6	5.9
36,631	30,526	28,919	15	24	4 to 6	5.7
36,902	30,752	29,133	17	27	4 to 6	5.7
38,223	31,853	30,176	15	23	4 to 6	5.5
38,321	31,934	30,254	17	26	4 to 6	5.5
39,770	33,142	31,398	19	28	4 to 6	5.3
39,854	33,212	31,464	17	25	4 to 6	5.2
41,243	34,370	32,561	19	27	4 to 6	5.1
41,515	34,596	32,775	17	24	4 to 6	5.0
42,830	35,691	33,813	19	26	4 to 6	4.9
43,320	36,100	34,200	17	23	4 to 6	4.8
44,543	37,119	35,165	19	25	4 to 6	4.7
46,270	38,559	36,529	15	19	4 to 6	4.5
46,399	38,666	36,631	19	24	4 to 6	4.5
48,143	40,119	38,008	23	28	4 to 6	4.3
48,416	40,347	38,223	19	23	4 to 6	4.3
49,926	41,605	39,415	23	27	4 to 6	4.2
50,236	41,864	39,660	24	28	4 to 6	4.2
51,714	43,095	40,827	15	17	4 to 6	4.0
52,097	43,414	41,129	24	27	4 to 6	4.0
52,440	43,700	41,400	17	19	4 to 6	4.0
53,920	44,934	42,569	23	25	4 to 6	3.9
54,423	45,352	42,965	26	28	4 to 6	3.8
56,167	46,806	44,342	23	24	4 to 6	3.7
56,265	46,887	44,419	24	25	4 to 6	3.7
56,516	47,097	44,618	27	28	4 to 6	3.7
58,609	48,841	46,270	23	23	4 to 6	3.6
60,780	50,650	47,984	28	27	4 to 6	3.4
60,863	50,719	48,050	27	26	4 to 6	3.4
61,157	50,964	48,282	24	23	4 to 6	3.4
63,117	52,598	49,830	28	26	4 to 6	3.3
63,298	52,748	49,972	27	25	4 to 6	3.3
63,705	53,088	50,294	25	23	4 to 6	3.3
65,504	54,587	51,714	19	17	4 to 6	3.2
65,935	54,946	52,054	27	24	4 to 6	3.2
66,254	55,211	52,306	26	23	4 to 6	3.2
68,377	56,981	53,982	28	24	4 to 6	3.1
68,802	57,335	54,317	27	23	4 to 6	3.0
70,948	59,123	56,011	23	19	4 to 6	2.9
71,350	59,458	56,329	28	23	4 to 6	2.9
74,032	61,694	58,447	24	19	4 to 6	2.8
77,117	64,264	60,882	25	19	4 to 6	2.7
79,295	66,079	62,601	23	17	4 to 6	2.6
80,202	66,835	63,317	26	19	4 to 6	2.6
82,742	68,952	65,323	24	17	4 to 6	2.5
83,287	69,405	65,753	27	19	4 to 6	2.5
86,190	71,825	68,045	25	17	4 to 6	2.4
86,371	71,976	68,188	28	19	4 to 6	2.4
89,637	74,698	70,766	26	17	4 to 6	2.3
89,867	74,889	70,948	23	15	4 to 6	2.3
93,085	77,571	73,488	27	17	4 to 6	2.2

**IMPORTANT: See "General Planting Rate Information" and "Checking Seed Population" pages for additional information. Always check seed population in the field to ensure planting rates are correct.**

# SEED METER OPERATION/MAINTENANCE

**PLANTING RATES FOR LOW-RATE CORN/POPCORN 24 CELL DISC  
15 TOOTH CONTACT WHEEL DRIVE SPROCKET (See Page 7-1)  
APPROXIMATE SEEDS/ACRE FOR VARIOUS ROW WIDTHS**

30" Rows	36" Rows	38" Rows	Transmission Sprockets		Recomm. Speed Range (MPH)	Average Seed Spacing In Inches
			Drive	Driven		
15,254	12,712	12,043	15	28	4 to 6	13.7
15,819	13,182	12,489	15	27	4 to 6	13.2
16,427	13,689	12,969	15	26	4 to 6	12.7
17,084	14,237	13,488	15	25	4 to 6	12.2
17,288	14,407	13,648	17	28	4 to 6	12.1
17,796	14,830	14,050	15	24	4 to 6	11.7
17,928	14,940	14,154	17	27	4 to 6	11.7
18,570	15,475	14,661	15	23	4 to 6	11.3
18,618	15,515	14,698	17	26	4 to 6	11.2
19,322	16,101	15,254	19	28	4 to 6	10.8
19,362	16,135	15,286	17	25	4 to 6	10.8
20,037	16,698	15,819	19	27	4 to 6	10.4
20,169	16,808	15,923	17	24	4 to 6	10.4
20,808	17,340	16,427	19	26	4 to 6	10.0
21,046	17,538	16,615	17	23	4 to 6	9.9
21,640	18,034	17,084	19	25	4 to 6	9.7
22,479	18,733	17,747	15	19	4 to 6	9.3
22,542	18,785	17,796	19	24	4 to 6	9.3
23,389	19,491	18,465	23	28	4 to 6	8.9
23,522	19,602	18,570	19	23	4 to 6	8.9
24,256	20,213	19,149	23	27	4 to 6	8.6
24,406	20,339	19,268	24	28	4 to 6	8.6
25,124	20,937	19,835	15	17	4 to 6	8.3
25,310	21,092	19,982	24	27	4 to 6	8.3
25,477	21,231	20,113	17	19	4 to 6	8.2
26,196	21,830	20,681	23	25	4 to 6	8.0
26,440	22,033	20,874	26	28	4 to 6	7.9
27,288	22,740	21,543	23	24	4 to 6	7.7
27,335	22,779	21,580	24	25	4 to 6	7.6
27,457	22,881	21,677	27	28	4 to 6	7.6
28,474	23,728	22,479	23	23	4 to 6	7.3
29,529	24,607	23,312	28	27	4 to 6	7.1
29,569	24,641	23,344	27	26	4 to 6	7.1
29,712	24,760	23,457	24	23	4 to 6	7.0
30,664	25,554	24,209	28	26	4 to 6	6.8
30,752	25,627	24,278	27	25	4 to 6	6.8
30,950	25,792	24,434	25	23	4 to 6	6.8
31,824	26,520	25,124	19	17	4 to 6	6.6
32,033	26,694	25,289	27	24	4 to 6	6.5
32,188	26,823	25,412	26	23	4 to 6	6.5
33,220	27,683	26,226	28	24	4 to 6	6.3
33,426	27,855	26,389	27	23	4 to 6	6.3
34,469	28,724	27,212	23	19	4 to 6	6.1
34,664	28,887	27,366	28	23	4 to 6	6.0
35,967	29,973	28,395	24	19	4 to 6	5.8
37,466	31,222	29,578	25	19	4 to 6	5.6
38,524	32,103	30,413	23	17	4 to 6	5.4
38,964	32,470	30,761	26	19	4 to 6	5.4
40,199	33,499	31,736	24	17	4 to 6	5.2
40,463	33,719	31,945	27	19	4 to 6	5.2
41,874	34,895	33,058	25	17	4 to 6	5.0
41,962	34,968	33,128	28	19	4 to 6	5.0
43,549	36,290	34,380	26	17	4 to 6	4.8
43,660	36,383	34,469	23	15	4 to 6	4.8
45,223	37,686	35,703	27	17	4 to 6	4.6

**IMPORTANT: See "General Planting Rate Information" and "Checking Seed Population" pages for additional information. Always check seed population in the field to ensure planting rates are correct.**

# SEED METER OPERATION/MAINTENANCE

**PLANTING RATES FOR LOW-RATE CORN/POPCORN 24 CELL DISC  
19 TOOTH CONTACT WHEEL DRIVE SPROCKET (See Page 7-1)  
APPROXIMATE HILLS/ACRE FOR VARIOUS ROW WIDTHS**

30" Rows	36" Rows	38" Rows	Transmission Sprockets		Recomm. Speed Range (MPH)	Average Seed Spacing In Inches
			Drive	Driven		
19,322	16,101	15,254	15	28	4 to 6	10.8
20,037	16,698	15,819	15	27	4 to 6	10.4
20,808	17,340	16,427	15	26	4 to 6	10.0
21,640	18,034	17,084	15	25	4 to 6	9.7
21,898	18,248	17,288	17	28	4 to 6	9.5
22,542	18,785	17,796	15	24	4 to 6	9.3
22,709	18,924	17,928	17	27	4 to 6	9.2
23,522	19,602	18,570	15	23	4 to 6	8.9
23,582	19,652	18,618	17	26	4 to 6	8.9
24,474	20,395	19,322	19	28	4 to 6	8.5
24,526	20,438	19,362	17	25	4 to 6	8.5
25,381	21,150	20,037	19	27	4 to 6	8.2
25,548	21,290	20,169	17	24	4 to 6	8.2
26,357	21,964	20,808	19	26	4 to 6	7.9
26,658	22,215	21,046	17	23	4 to 6	7.8
27,411	22,843	21,640	19	25	4 to 6	7.6
28,474	23,728	22,479	15	19	4 to 6	7.3
28,553	23,794	22,542	19	24	4 to 6	7.3
29,627	24,689	23,389	23	28	4 to 6	7.1
29,795	24,829	23,522	19	23	4 to 6	7.0
30,724	25,603	24,256	23	27	4 to 6	6.8
30,915	25,762	24,406	24	28	4 to 6	6.8
31,824	26,520	25,124	15	17	4 to 6	6.6
32,060	26,716	25,310	24	27	4 to 6	6.5
32,271	26,892	25,477	17	19	4 to 6	6.5
33,182	27,651	26,196	23	25	4 to 6	6.3
33,491	27,909	26,440	26	28	4 to 6	6.2
34,564	28,804	27,288	23	24	4 to 6	6.0
34,624	28,854	27,335	24	25	4 to 6	6.0
34,779	28,982	27,457	27	28	4 to 6	6.0
36,067	30,056	28,474	23	23	4 to 6	5.8
37,403	31,169	29,529	28	27	4 to 6	5.6
37,454	31,212	29,569	27	26	4 to 6	5.6
37,635	31,363	29,712	24	23	4 to 6	5.6
38,841	32,368	30,664	28	26	4 to 6	5.4
38,952	32,460	30,752	27	25	4 to 6	5.4
39,203	32,669	30,950	25	23	4 to 6	5.3
40,310	33,592	31,824	19	17	4 to 6	5.2
40,575	33,813	32,033	27	24	4 to 6	5.2
40,772	33,976	32,188	26	23	4 to 6	5.1
42,078	35,065	33,220	28	24	4 to 6	5.0
42,340	35,283	33,426	27	23	4 to 6	4.9
43,660	36,383	34,469	23	19	4 to 6	4.8
43,908	36,590	34,664	28	23	4 to 6	4.8
45,558	37,965	35,967	24	19	4 to 6	4.6
47,457	39,547	37,466	25	19	4 to 6	4.4
48,797	40,664	38,524	23	17	4 to 6	4.3
49,355	41,129	38,964	26	19	4 to 6	4.2
50,918	42,432	40,199	24	17	4 to 6	4.1
51,253	42,711	40,463	27	19	4 to 6	4.1
53,040	44,200	41,874	25	17	4 to 6	3.9
53,152	44,293	41,962	28	19	4 to 6	3.9
55,161	45,968	43,549	26	17	4 to 6	3.8
55,303	46,086	43,660	23	15	4 to 6	3.8
57,283	47,736	45,223	27	17	4 to 6	3.7

**IMPORTANT: See "General Planting Rate Information" and "Checking Seed Population" pages for additional information. Always check seed population in the field to ensure planting rates are correct.**

# SEED METER OPERATION/MAINTENANCE

## PLANTING RATES FOR SOYBEAN AND MILO/GRAIN SORGHUM 60 CELL DISCS

15 TOOTH CONTACT WHEEL DRIVE SPROCKET (See Page 7-1)

### APPROXIMATE SEEDS/ACRE FOR VARIOUS ROW WIDTHS

30" Rows	36" Rows	38" Rows	Transmission Sprockets		Recomm. Speed Range (MPH)	Average Seed Spacing In Inches
			Drive	Driven		
38,135	31,779	30,106	15	28	4 to 6	5.5
39,547	32,956	31,222	15	27	4 to 6	5.3
41,068	34,224	32,422	15	26	4 to 6	5.1
42,711	35,593	33,719	15	25	4 to 6	4.9
43,220	36,016	34,121	17	28	4 to 6	4.8
44,491	37,076	35,124	15	24	4 to 6	4.7
44,820	37,350	35,384	17	27	4 to 6	4.7
46,425	38,688	36,651	15	23	4 to 6	4.5
46,544	38,787	36,745	17	26	4 to 6	4.5
48,304	40,253	38,135	19	28	4 to 6	4.3
48,406	40,338	38,215	17	25	4 to 6	4.3
50,093	41,744	39,547	19	27	4 to 6	4.2
50,423	42,019	39,807	17	24	4 to 6	4.1
52,020	43,350	41,068	19	26	4 to 6	4.0
52,615	43,846	41,538	17	23	4 to 6	4.0
54,101	45,084	42,711	19	25	4 to 6	3.9
56,199	46,832	44,367	15	19	4 to 6	3.7
56,355	46,962	44,491	19	24	4 to 6	3.7
58,473	48,728	46,163	23	28	4 to 6	3.6
58,805	49,004	46,425	19	23	4 to 6	3.6
60,639	50,533	47,873	23	27	4 to 6	3.4
61,016	50,846	48,170	24	28	4 to 6	3.4
62,810	52,342	49,587	15	17	4 to 6	3.3
63,276	52,730	49,954	24	27	4 to 6	3.3
63,692	53,077	50,283	17	19	4 to 6	3.3
65,490	54,575	51,703	23	25	4 to 6	3.2
66,100	55,084	52,185	26	28	4 to 6	3.2
68,219	56,849	53,857	23	24	4 to 6	3.1
68,338	56,948	53,951	24	25	4 to 6	3.1
68,643	57,202	54,192	27	28	4 to 6	3.0
71,185	59,321	56,199	23	23	4 to 6	2.9
73,822	61,518	58,280	28	27	4 to 6	2.8
73,923	61,602	58,360	27	26	4 to 6	2.8
74,280	61,900	58,642	24	23	4 to 6	2.8
76,661	63,884	60,522	28	26	4 to 6	2.7
76,880	64,067	60,695	27	25	4 to 6	2.7
77,375	64,479	61,086	25	23	4 to 6	2.7
79,560	66,300	62,810	19	17	4 to 6	2.6
80,083	66,736	63,224	27	24	4 to 6	2.6
80,470	67,058	63,529	26	23	4 to 6	2.6
83,049	69,208	65,565	28	24	4 to 6	2.5
83,565	69,638	65,972	27	23	4 to 6	2.5
86,171	71,810	68,030	23	19	4 to 6	2.4
86,660	72,217	68,416	28	23	4 to 6	2.4
89,918	74,932	70,988	24	19	4 to 6	2.3
93,665	78,054	73,946	25	19	4 to 6	2.2
96,309	80,258	76,034	23	17	4 to 6	2.2
97,411	81,176	76,904	26	19	4 to 6	2.1
100,497	83,747	79,339	24	17	4 to 6	2.1
101,158	84,298	79,861	27	19	4 to 6	2.1
104,684	87,237	82,645	25	17	4 to 6	2.0
104,904	87,420	82,819	28	19	4 to 6	2.0
108,871	90,726	85,951	26	17	4 to 6	1.9
109,150	90,959	86,171	23	15	4 to 6	1.9
113,059	94,216	89,257	27	17	4 to 6	1.8

**IMPORTANT: See "General Planting Rate Information" and "Checking Seed Population" pages for additional information. Always check seed population in the field to ensure planting rates are correct.**

# SEED METER OPERATION/MAINTENANCE

## PLANTING RATES FOR SOYBEAN AND MILO/GRAIN SORGHUM 60 CELL DISCS

19 TOOTH CONTACT WHEEL DRIVE SPROCKET (See Page 7-1)

### APPROXIMATE SEEDS/ACRE FOR VARIOUS ROW WIDTHS

30" Rows	36" Rows	38" Rows	Transmission Sprockets		Recomm. Speed Range (MPH)	Average Seed Spacing In Inches
			Drive	Driven		
48,304	40,253	38,135	15	28	4 to 6	4.3
50,093	41,744	39,547	15	27	4 to 6	4.2
52,020	43,350	41,068	15	26	4 to 6	4.0
54,101	45,084	42,711	15	25	4 to 6	3.9
54,745	45,621	43,220	17	28	4 to 6	3.8
56,355	46,962	44,491	15	24	4 to 6	3.7
56,772	47,310	44,820	17	27	4 to 6	3.7
58,805	49,004	46,425	15	23	4 to 6	3.6
58,956	49,130	46,544	17	26	4 to 6	3.5
61,185	50,988	48,304	19	28	4 to 6	3.4
61,314	51,095	48,406	17	25	4 to 6	3.4
63,451	52,876	50,093	19	27	4 to 6	3.3
63,869	53,224	50,423	17	24	4 to 6	3.3
65,892	54,910	52,020	19	26	4 to 6	3.2
66,646	55,538	52,615	17	23	4 to 6	3.1
68,528	57,106	54,101	19	25	4 to 6	3.1
71,185	59,321	56,199	15	19	4 to 6	2.9
71,383	59,486	56,355	19	24	4 to 6	2.9
74,066	61,722	58,473	23	28	4 to 6	2.8
74,486	62,072	58,805	19	23	4 to 6	2.8
76,810	64,008	60,639	23	27	4 to 6	2.7
77,287	64,406	61,016	24	28	4 to 6	2.7
79,560	66,300	62,810	15	17	4 to 6	2.6
80,149	66,791	63,276	24	27	4 to 6	2.6
80,676	67,230	63,692	17	19	4 to 6	2.6
82,954	69,129	65,490	23	25	4 to 6	2.5
83,727	69,773	66,100	26	28	4 to 6	2.5
86,411	72,009	68,219	23	24	4 to 6	2.4
86,561	72,134	68,338	24	25	4 to 6	2.4
86,947	72,456	68,643	27	28	4 to 6	2.4
90,168	75,140	71,185	23	23	4 to 6	2.3
93,507	77,923	73,822	28	27	4 to 6	2.2
93,636	78,030	73,923	27	26	4 to 6	2.2
94,088	78,407	74,280	24	23	4 to 6	2.2
97,104	80,920	76,661	28	26	4 to 6	2.2
97,381	81,151	76,880	27	25	4 to 6	2.1
98,008	81,674	77,375	25	23	4 to 6	2.1
100,776	83,980	79,560	19	17	4 to 6	2.1
101,439	84,532	80,083	27	24	4 to 6	2.1
101,929	84,941	80,470	26	23	4 to 6	2.1
105,196	87,663	83,049	28	24	4 to 6	2.0
105,849	88,208	83,565	27	23	4 to 6	2.0
109,150	90,959	86,171	23	19	4 to 6	1.9
109,769	91,475	86,660	28	23	4 to 6	1.9
113,896	94,913	89,918	24	19	4 to 6	1.8
118,642	98,868	93,665	25	19	4 to 6	1.8
121,992	101,660	96,309	23	17	4 to 6	1.7
123,387	102,823	97,411	26	19	4 to 6	1.7
127,296	106,080	100,497	24	17	4 to 6	1.6
128,133	106,778	101,158	27	19	4 to 6	1.6
132,600	110,500	104,684	25	17	4 to 6	1.6
132,879	110,732	104,904	28	19	4 to 6	1.6
137,904	114,920	108,871	26	17	4 to 6	1.5
138,257	115,214	109,150	23	15	4 to 6	1.5
143,208	119,340	113,059	27	17	4 to 6	1.5

**IMPORTANT: See "General Planting Rate Information" and "Checking Seed Population" pages for additional information. Always check seed population in the field to ensure planting rates are correct.**

# SEED METER OPERATION/MAINTENANCE

**PLANTING RATES FOR SOYBEAN 60 CELL DISC  
38 TOOTH CONTACT WHEEL DRIVE SPROCKET (See Page 7-1)  
APPROXIMATE SEEDS/ACRE FOR VARIOUS ROW WIDTHS**

30" Rows	36" Rows	38" Rows	Transmission Sprockets		Recomm. Speed Range (MPH)	Average Seed Spacing In Inches
			Drive	Driven		
96,608	80,507	76,270	15	28	4 to 6	2.2
100,186	83,489	79,095	15	27	4 to 6	2.1
104,040	86,700	82,137	15	26	4 to 6	2.0
108,201	90,168	85,422	15	25	4 to 6	1.9
109,489	91,241	86,439	17	28	4 to 6	1.9
112,710	93,925	88,981	15	24	4 to 6	1.9
113,545	94,620	89,640	17	27	4 to 6	1.8
117,610	98,008	92,850	15	23	4 to 6	1.8
117,912	98,260	93,088	17	26	4 to 6	1.8
122,371	101,975	96,608	19	28	4 to 6	1.7
122,628	102,190	96,812	17	25	4 to 6	1.7
126,903	105,752	100,186	19	27	4 to 6	1.6
127,738	106,448	100,846	17	24	4 to 6	1.6
131,784	109,820	104,040	19	26	4 to 6	1.6
133,291	111,076	105,230	17	23	4 to 6	1.6
137,055	114,213	108,201	19	25	4 to 6	1.5
142,370	118,642	112,397	15	19	4 to 6	1.5
142,766	118,971	112,710	19	24	4 to 6	1.5
148,133	123,444	116,947	23	28	4 to 6	1.4
148,973	124,144	117,610	19	23	4 to 6	1.4
153,619	128,016	121,278	23	27	4 to 6	1.4
154,573	128,811	122,032	24	28	4 to 6	1.4
159,120	132,600	125,621	15	17	4 to 6	1.3
160,298	133,582	126,551	24	27	4 to 6	1.3
161,353	134,461	127,384	17	19	4 to 6	1.3
165,909	138,257	130,981	23	25	4 to 6	1.3
167,454	139,545	132,201	26	28	4 to 6	1.2
172,822	144,018	136,438	23	24	4 to 6	1.2
173,122	144,268	136,675	24	25	4 to 6	1.2
173,895	144,912	137,286	27	28	4 to 6	1.2
180,336	150,280	142,370	23	23	4 to 6	1.2
187,015	155,846	147,643	28	27	4 to 6	1.1
187,272	156,060	147,846	27	26	4 to 6	1.1
188,176	156,814	148,560	24	23	4 to 6	1.1
194,207	161,840	153,322	28	26	4 to 6	1.1
194,762	162,302	153,760	27	25	4 to 6	1.1
196,017	163,347	154,750	25	23	4 to 6	1.1
201,551	167,960	159,120	19	17	4 to 6	1.0
202,877	169,065	160,166	27	24	4 to 6	1.0
203,858	169,881	160,940	26	23	4 to 6	1.0
210,391	175,326	166,099	28	24	4 to 6	1.0
211,698	176,415	167,130	27	23	4 to 6	1.0
218,301	181,917	172,343	23	19	4 to 6	1.0
219,539	182,949	173,320	28	23	4 to 6	1.0
227,792	189,827	179,836	24	19	4 to 6	0.9
237,284	197,736	187,329	25	19	4 to 6	0.9
243,983	203,319	192,618	23	17	4 to 6	0.9
246,775	205,646	194,822	26	19	4 to 6	0.8
	212,159	200,993	24	17	4 to 6	0.8
	213,555	202,315	27	19	4 to 6	0.8
	220,999	209,368	25	17	4 to 6	0.8
	221,465	209,809	28	19	4 to 6	0.8
	229,839	217,743	26	17	4 to 6	0.8
	230,429	218,301	23	15	4 to 6	0.8
	238,679	226,117	27	17	4 to 6	0.7

**IMPORTANT: See "General Planting Rate Information" and "Checking Seed Population" pages for additional information. Always check seed population in the field to ensure planting rates are correct.**

# SEED METER OPERATION/MAINTENANCE

**PLANTING RATES FOR HIGH-RATE SOYBEAN 120 CELL DISC  
15 TOOTH CONTACT WHEEL DRIVE SPROCKET (See Page 7-1)  
APPROXIMATE SEEDS/ACRE FOR VARIOUS ROW WIDTHS**

30" Rows	36" Rows	38" Rows	Transmission Sprockets		Recomm. Speed Range (MPH)	Average Seed Spacing In Inches
			Drive	Driven		
76,270	63,558	60,213	15	28	4 to 6	2.7
79,095	65,912	62,443	15	27	4 to 6	2.6
82,137	68,447	64,845	15	26	4 to 6	2.5
85,422	71,185	67,438	15	25	4 to 6	2.4
86,439	72,033	68,241	17	28	4 to 6	2.4
88,981	74,151	70,248	15	24	4 to 6	2.3
89,640	74,700	70,769	17	27	4 to 6	2.3
92,850	77,375	73,303	15	23	4 to 6	2.3
93,088	77,573	73,491	17	26	4 to 6	2.2
96,608	80,507	76,270	19	28	4 to 6	2.2
96,812	80,676	76,430	17	25	4 to 6	2.2
100,186	83,489	79,095	19	27	4 to 6	2.1
100,846	84,038	79,615	17	24	4 to 6	2.1
104,040	86,700	82,137	19	26	4 to 6	2.0
105,230	87,692	83,076	17	23	4 to 6	2.0
108,201	90,168	85,422	19	25	4 to 6	1.9
112,397	93,665	88,735	15	19	4 to 6	1.9
112,710	93,925	88,981	19	24	4 to 6	1.9
116,947	97,456	92,327	23	28	4 to 6	1.8
117,610	98,008	92,850	19	23	4 to 6	1.8
121,278	101,065	95,746	23	27	4 to 6	1.7
122,032	101,693	96,341	24	28	4 to 6	1.7
125,621	104,684	99,174	15	17	4 to 6	1.7
126,551	105,459	99,909	24	27	4 to 6	1.7
127,384	106,153	100,566	17	19	4 to 6	1.6
130,981	109,150	103,406	23	25	4 to 6	1.6
132,201	110,167	104,369	26	28	4 to 6	1.6
136,438	113,698	107,714	23	24	4 to 6	1.5
136,675	113,896	107,902	24	25	4 to 6	1.5
137,286	114,405	108,383	27	28	4 to 6	1.5
142,370	118,642	112,397	23	23	4 to 6	1.5
147,643	123,036	116,560	28	27	4 to 6	1.4
147,846	123,205	116,720	27	26	4 to 6	1.4
148,560	123,800	117,284	24	23	4 to 6	1.4
153,322	127,768	121,043	28	26	4 to 6	1.4
153,760	128,133	121,389	27	25	4 to 6	1.4
154,750	128,958	122,171	25	23	4 to 6	1.4
159,120	132,600	125,621	19	17	4 to 6	1.3
160,166	133,472	126,447	27	24	4 to 6	1.3
160,940	134,117	127,058	26	23	4 to 6	1.3
166,099	138,415	131,130	28	24	4 to 6	1.3
167,130	139,275	131,945	27	23	4 to 6	1.3
172,343	143,619	136,060	23	19	4 to 6	1.2
173,320	144,433	136,832	28	23	4 to 6	1.2
179,836	149,863	141,976	24	19	4 to 6	1.2
187,329	156,108	147,891	25	19	4 to 6	1.1
192,618	160,515	152,067	23	17	4 to 6	1.1
194,822	162,352	153,807	26	19	4 to 6	1.1
200,993	167,494	158,679	24	17	4 to 6	1.0
202,315	168,596	159,723	27	19	4 to 6	1.0
209,368	174,473	165,290	25	17	4 to 6	1.0
209,809	174,841	165,638	28	19	4 to 6	1.0
217,743	181,452	171,902	26	17	4 to 6	1.0
218,301	181,917	172,343	23	15	4 to 6	1.0
226,117	188,431	178,514	27	17	4 to 6	0.9

**IMPORTANT: See "General Planting Rate Information" and "Checking Seed Population" pages for additional information. Always check seed population in the field to ensure planting rates are correct.**

# SEED METER OPERATION/MAINTENANCE

**PLANTING RATES FOR HIGH-RATE SOYBEAN 120 CELL DISC  
19 TOOTH CONTACT WHEEL DRIVE SPROCKET (See Page 7-1)  
APPROXIMATE SEEDS/ACRE FOR VARIOUS ROW WIDTHS**

30" Rows	36" Rows	38" Rows	Transmission Sprockets		Recomm. Speed Range (MPH)	Average Seed Spacing In Inches
			Drive	Driven		
96,608	80,507	76,270	15	28	4 to 6	2.2
100,186	83,489	79,095	15	27	4 to 6	2.1
104,040	86,700	82,137	15	26	4 to 6	2.0
108,201	90,168	85,422	15	25	4 to 6	1.9
109,489	91,241	86,439	17	28	4 to 6	1.9
112,710	93,925	88,981	15	24	4 to 6	1.9
113,545	94,620	89,640	17	27	4 to 6	1.8
117,610	98,008	92,850	15	23	4 to 6	1.8
117,912	98,260	93,088	17	26	4 to 6	1.8
122,371	101,975	96,608	19	28	4 to 6	1.7
122,628	102,190	96,812	17	25	4 to 6	1.7
126,903	105,752	100,186	19	27	4 to 6	1.6
127,738	106,448	100,846	17	24	4 to 6	1.6
131,784	109,820	104,040	19	26	4 to 6	1.6
133,291	111,076	105,230	17	23	4 to 6	1.6
137,055	114,213	108,201	19	25	4 to 6	1.5
142,370	118,642	112,397	15	19	4 to 6	1.5
142,766	118,971	112,710	19	24	4 to 6	1.5
148,133	123,444	116,947	23	28	4 to 6	1.4
148,973	124,144	117,610	19	23	4 to 6	1.4
153,619	128,016	121,278	23	27	4 to 6	1.4
154,573	128,811	122,032	24	28	4 to 6	1.4
159,120	132,600	125,621	15	17	4 to 6	1.3
160,298	133,582	126,551	24	27	4 to 6	1.3
161,353	134,461	127,384	17	19	4 to 6	1.3
165,909	138,257	130,981	23	25	4 to 6	1.3
167,454	139,545	132,201	26	28	4 to 6	1.2
172,822	144,018	136,438	23	24	4 to 6	1.2
173,122	144,268	136,675	24	25	4 to 6	1.2
173,895	144,912	137,286	27	28	4 to 6	1.2
180,336	150,280	142,370	23	23	4 to 6	1.2
187,015	155,846	147,643	28	27	4 to 6	1.1
187,272	156,060	147,846	27	26	4 to 6	1.1
188,176	156,814	148,560	24	23	4 to 6	1.1
194,207	161,840	153,322	28	26	4 to 6	1.1
194,762	162,302	153,760	27	25	4 to 6	1.1
196,017	163,347	154,750	25	23	4 to 6	1.1
201,551	167,960	159,120	19	17	4 to 6	1.0
202,877	169,065	160,166	27	24	4 to 6	1.0
203,858	169,881	160,940	26	23	4 to 6	1.0
210,391	175,326	166,099	28	24	4 to 6	1.0
211,698	176,415	167,130	27	23	4 to 6	1.0
218,301	181,917	172,343	23	19	4 to 6	1.0
219,539	182,949	173,320	28	23	4 to 6	1.0
227,792	189,827	179,836	24	19	4 to 6	0.9
237,284	197,736	187,329	25	19	4 to 6	0.9
243,983	203,319	192,618	23	17	4 to 6	0.9
246,775	205,646	194,822	26	19	4 to 6	0.8
	212,159	200,993	24	17	4 to 6	0.8
	213,555	202,315	27	19	4 to 6	0.8
	220,999	209,368	25	17	4 to 6	0.8
	221,465	209,809	28	19	4 to 6	0.8
	229,839	217,743	26	17	4 to 6	0.8
	230,429	218,301	23	15	4 to 6	0.8
	238,679	226,117	27	17	4 to 6	0.7

**IMPORTANT: See "General Planting Rate Information" and "Checking Seed Population" pages for additional information. Always check seed population in the field to ensure planting rates are correct.**

# SEED METER OPERATION/MAINTENANCE

PLANTING RATES FOR ACID-DELINTED HILL-DROP COTTON, 3 SEEDS PER CELL, 20 CELL DISCS  
 15 TOOTH CONTACT WHEEL DRIVE SPROCKET (See Page 7-1)  
 APPROXIMATE HILLS/ACRE FOR VARIOUS ROW WIDTHS

30" Rows	36" Rows	38" Rows	Transmission Sprockets		Recomm. Speed Range (MPH)	Average Hill Spacing In Inches
			Drive	Driven		
12,712	10,593	10,035	15	28	4 to 6	16.4
13,182	10,985	10,407	15	27	4 to 6	15.9
13,689	11,408	10,807	15	26	4 to 6	15.3
14,237	11,864	11,240	15	25	4 to 6	14.7
14,407	12,005	11,374	17	28	4 to 6	14.5
14,830	12,359	11,708	15	24	4 to 6	14.1
14,940	12,450	11,795	17	27	4 to 6	14.0
15,475	12,896	12,217	15	23	4 to 6	13.5
15,515	12,929	12,248	17	26	4 to 6	13.5
16,101	13,418	12,712	19	28	4 to 6	13.0
16,135	13,446	12,738	17	25	4 to 6	13.0
16,698	13,915	13,182	19	27	4 to 6	12.5
16,808	14,006	13,269	17	24	4 to 6	12.4
17,340	14,450	13,689	19	26	4 to 6	12.1
17,538	14,615	13,846	17	23	4 to 6	11.9
18,034	15,028	14,237	19	25	4 to 6	11.6
18,733	15,611	14,789	15	19	4 to 6	11.2
18,785	15,654	14,830	19	24	4 to 6	11.1
19,491	16,243	15,388	23	28	4 to 6	10.7
19,602	16,335	15,475	19	23	4 to 6	10.7
20,213	16,844	15,958	23	27	4 to 6	10.3
20,339	16,949	16,057	24	28	4 to 6	10.3
20,937	17,447	16,529	15	17	4 to 6	10.0
20,990	17,492	16,571	23	26	4 to 6	10.0
21,092	17,577	16,651	24	27	4 to 6	9.9
21,186	17,655	16,726	25	28	4 to 6	9.9
21,231	17,692	16,761	17	19	4 to 6	9.8
21,830	18,192	17,234	23	25	4 to 6	9.6
21,903	18,253	17,292	24	26	4 to 6	9.5
21,971	18,309	17,345	25	27	4 to 6	9.5
22,033	18,361	17,395	26	28	4 to 6	9.5
22,740	18,950	17,952	23	24	4 to 6	9.2
22,779	18,983	17,984	24	25	4 to 6	9.2
22,816	19,013	18,012	25	26	4 to 6	9.2
22,850	19,041	18,039	26	27	4 to 6	9.2
22,881	19,067	18,064	27	28	4 to 6	9.1
23,728	19,774	18,733	23	23	4 to 6	8.8
24,607	20,506	19,427	28	27	4 to 6	8.5
24,641	20,534	19,453	27	26	4 to 6	8.5
24,717	20,598	19,513	25	24	4 to 6	8.5
24,760	20,633	19,547	24	23	4 to 6	8.4
25,554	21,295	20,174	28	26	4 to 6	8.2
25,627	21,356	20,232	27	25	4 to 6	8.2
25,792	21,493	20,362	25	23	4 to 6	8.1
26,520	22,100	20,937	19	17	4 to 6	7.9
26,576	22,146	20,981	28	25	4 to 6	7.9
26,694	22,245	21,075	27	24	4 to 6	7.8
26,823	22,353	21,176	26	23	4 to 6	7.8
27,683	23,069	21,855	28	24	4 to 6	7.6
27,855	23,213	21,991	27	23	4 to 6	7.5
28,724	23,937	22,677	23	19	4 to 6	7.3
28,887	24,072	22,805	28	23	4 to 6	7.2
29,973	24,977	23,663	24	19	4 to 6	7.0
31,222	26,018	24,649	25	19	4 to 6	6.7
32,103	26,753	25,345	23	17	5 to 6	6.5

**IMPORTANT: See "General Planting Rate Information" and "Checking Seed Population" pages for additional information. Always check seed population in the field to ensure planting rates are correct.**

# SEED METER OPERATION/MAINTENANCE

PLANTING RATES FOR ACID-DELINTED HILL-DROP COTTON, 3 SEEDS PER CELL, 20 CELL DISCS

19 TOOTH CONTACT WHEEL DRIVE SPROCKET (See Page 7-1)

APPROXIMATE HILLS/ACRE FOR VARIOUS ROW WIDTHS

30" Rows	36" Rows	38" Rows	Transmission Sprockets Drive/Driven		Recomm. Speed Range (MPH)	Average Hill Spacing In Inches
16,101	13,418	12,712	15	28	4 to 6	13.0
16,698	13,915	13,182	15	27	4 to 6	12.5
17,340	14,450	13,689	15	26	4 to 6	12.1
18,034	15,028	14,237	15	25	4 to 6	11.6
18,248	15,207	14,407	17	28	4 to 6	11.5
18,785	15,654	14,830	15	24	4 to 6	11.1
18,924	15,770	14,940	17	27	4 to 6	11.0
19,602	16,335	15,475	15	23	4 to 6	10.7
19,652	16,377	15,515	17	26	4 to 6	10.6
20,395	16,996	16,101	19	28	4 to 6	10.3
20,438	17,032	16,135	17	25	4 to 6	10.2
21,150	17,625	16,698	19	27	4 to 6	9.9
21,290	17,741	16,808	17	24	4 to 6	9.8
21,964	18,303	17,340	19	26	4 to 6	9.5
22,215	18,513	17,538	17	23	4 to 6	9.4
22,843	19,035	18,034	19	25	4 to 6	9.2
23,728	19,774	18,733	15	19	4 to 6	8.8
23,794	19,829	18,785	19	24	4 to 6	8.8
24,689	20,574	19,491	23	28	4 to 6	8.5
24,829	20,691	19,602	19	23	4 to 6	8.4
25,603	21,336	20,213	23	27	4 to 6	8.2
25,762	21,469	20,339	24	28	4 to 6	8.1
26,520	22,100	20,937	15	17	4 to 6	7.9
26,588	22,157	20,990	23	26	4 to 6	7.9
26,716	22,264	21,092	24	27	4 to 6	7.8
26,836	22,363	21,186	25	28	4 to 6	7.8
26,892	22,410	21,231	17	19	4 to 6	7.8
27,651	23,043	21,830	23	25	4 to 6	7.6
27,744	23,120	21,903	24	26	4 to 6	7.5
27,830	23,191	21,971	25	27	4 to 6	7.5
27,909	23,258	22,033	26	28	4 to 6	7.5
28,804	24,003	22,740	23	24	4 to 6	7.3
28,854	24,045	22,779	24	25	4 to 6	7.2
28,900	24,083	22,816	25	26	4 to 6	7.2
28,943	24,119	22,850	26	27	4 to 6	7.2
28,982	24,152	22,881	27	28	4 to 6	7.2
30,056	25,047	23,728	23	23	4 to 6	7.0
31,169	25,974	24,607	28	27	4 to 6	6.7
31,212	26,010	24,641	27	26	4 to 6	6.7
31,308	26,090	24,717	25	24	4 to 6	6.7
31,363	26,136	24,760	24	23	4 to 6	6.7
32,368	26,973	25,554	28	26	4 to 6	6.5
32,460	27,050	25,627	27	25	4 to 6	6.4
32,669	27,225	25,792	25	23	4 to 6	6.4
33,592	27,993	26,520	19	17	4 to 6	6.2
33,663	28,052	26,576	28	25	4 to 6	6.2
33,813	28,177	26,694	27	24	4 to 6	6.2
33,976	28,314	26,823	26	23	4 to 6	6.2
35,065	29,221	27,683	28	24	4 to 6	6.0
35,283	29,403	27,855	27	23	4 to 6	5.9
36,383	30,320	28,724	23	19	4 to 6	5.7
36,590	30,492	28,887	28	23	4 to 6	5.7
37,965	31,638	29,973	24	19	4 to 6	5.5
39,547	32,956	31,222	25	19	4 to 6	5.3
40,664	33,887	32,103	23	17	5 to 6	5.1

**IMPORTANT: See "General Planting Rate Information" and "Checking Seed Population" pages for additional information. Always check seed population in the field to ensure planting rates are correct.**

# SEED METER OPERATION/MAINTENANCE

PLANTING RATES FOR ACID-DELINTED COTTON/SMALL DRY EDIBLE BEAN/SMALL COTTON/SUNFLOWER 54 CELL DISC  
**15 TOOTH CONTACT WHEEL DRIVE SPROCKET (See Page 7-1)**  
 APPROXIMATE SEEDS/ACRE FOR VARIOUS ROW WIDTHS

30" Rows	36" Rows	38" Rows	Transmission Sprockets		Recomm. Speed Range (MPH)	Average Seed Spacing In Inches
			Drive	Driven		
34,321	28,601	27,096	15	28	4 to 6	6.1
35,593	29,660	28,099	15	27	4 to 6	5.9
36,961	30,801	29,180	15	26	4 to 6	5.7
38,440	32,033	30,347	15	25	4 to 6	5.4
38,898	32,415	30,709	17	28	4 to 6	5.4
40,042	33,368	31,612	15	24	4 to 6	5.2
40,338	33,615	31,846	17	27	4 to 6	5.2
41,783	34,819	32,986	15	23	4 to 6	5.0
41,890	34,908	33,071	17	26	4 to 6	5.0
43,474	36,228	34,321	19	28	4 to 6	4.8
43,565	36,304	34,394	17	25	4 to 6	4.8
45,084	37,570	35,593	19	27	4 to 6	4.6
45,380	37,817	35,827	17	24	4 to 6	4.6
46,818	39,015	36,961	19	26	4 to 6	4.5
47,354	39,461	37,384	17	23	4 to 6	4.4
48,691	40,575	38,440	19	25	4 to 6	4.3
50,579	42,149	39,931	15	19	4 to 6	4.1
50,719	42,266	40,042	19	24	4 to 6	4.1
52,626	43,855	41,547	23	28	4 to 6	4.0
52,925	44,104	41,783	19	23	4 to 6	4.0
54,575	45,479	43,086	23	27	4 to 6	3.8
54,914	45,762	43,353	24	28	4 to 6	3.8
56,529	47,108	44,628	15	17	4 to 6	3.7
56,948	47,457	44,959	24	27	4 to 6	3.7
57,323	47,769	45,255	17	19	4 to 6	3.6
58,941	49,118	46,533	23	25	4 to 6	3.5
59,490	49,575	46,966	26	28	4 to 6	3.5
61,397	51,164	48,471	23	24	4 to 6	3.4
61,504	51,253	48,556	24	25	4 to 6	3.4
61,778	51,482	48,772	27	28	4 to 6	3.4
64,067	53,389	50,579	23	23	4 to 6	3.3
66,439	55,366	52,452	28	27	4 to 6	3.1
66,531	55,442	52,524	27	26	4 to 6	3.1
66,852	55,710	52,778	24	23	4 to 6	3.1
68,995	57,496	54,470	28	26	4 to 6	3.0
69,192	57,660	54,625	27	25	4 to 6	3.0
69,638	58,031	54,977	25	23	4 to 6	3.0
71,604	59,670	56,529	19	17	4 to 6	2.9
72,075	60,062	56,901	27	24	4 to 6	2.9
72,423	60,353	57,176	26	23	4 to 6	2.9
74,744	62,287	59,009	28	24	4 to 6	2.8
75,209	62,674	59,375	27	23	4 to 6	2.8
77,554	64,629	61,227	23	19	4 to 6	2.7
77,994	64,995	61,574	28	23	4 to 6	2.7
80,926	67,438	63,889	24	19	4 to 6	2.6
84,298	70,248	66,551	25	19	4 to 6	2.5
86,678	72,232	68,430	23	17	4 to 6	2.4
87,670	73,058	69,213	26	19	4 to 6	2.4
90,447	75,372	71,405	24	17	4 to 6	2.3
91,042	75,868	71,875	27	19	4 to 6	2.3
94,216	78,513	74,381	25	17	4 to 6	2.2
94,414	78,678	74,537	28	19	4 to 6	2.2
97,984	81,653	77,356	26	17	4 to 6	2.1
98,235	81,863	77,554	23	15	4 to 6	2.1
101,753	84,794	80,331	27	17	4 to 6	2.1

**IMPORTANT: See "General Planting Rate Information" and "Checking Seed Population" pages for additional information. Always check seed population in the field to ensure planting rates are correct.**

# SEED METER OPERATION/MAINTENANCE

PLANTING RATES FOR ACID-DELINTED COTTON/SMALL DRY EDIBLE BEAN/SMALL COTTON/SUNFLOWER 54 CELL DISC  
**19 TOOTH CONTACT WHEEL DRIVE SPROCKET (See Page 7-1)**  
**APPROXIMATE SEEDS/ACRE FOR VARIOUS ROW WIDTHS**

30" Rows	36" Rows	38" Rows	Transmission Sprockets		Recomm. Speed Range (MPH)	Average Seed Spacing In Inches
			Drive	Driven		
43,474	36,228	34,321	15	28	4 to 6	4.8
45,084	37,570	35,593	15	27	4 to 6	4.6
46,818	39,015	36,961	15	26	4 to 6	4.5
48,691	40,575	38,440	15	25	4 to 6	4.3
49,270	41,059	38,898	17	28	4 to 6	4.2
50,719	42,266	40,042	15	24	4 to 6	4.1
51,095	42,579	40,338	17	27	4 to 6	4.1
52,925	44,104	41,783	15	23	4 to 6	4.0
53,060	44,217	41,890	17	26	4 to 6	3.9
55,067	45,889	43,474	19	28	4 to 6	3.8
55,183	45,986	43,565	17	25	4 to 6	3.8
57,106	47,589	45,084	19	27	4 to 6	3.7
57,482	47,902	45,380	17	24	4 to 6	3.6
59,303	49,419	46,818	19	26	4 to 6	3.5
59,981	49,984	47,354	17	23	4 to 6	3.5
61,675	51,396	48,691	19	25	4 to 6	3.4
64,067	53,389	50,579	15	19	4 to 6	3.3
64,245	53,537	50,719	19	24	4 to 6	3.3
66,660	55,550	52,626	23	28	4 to 6	3.1
67,038	55,865	52,925	19	23	4 to 6	3.1
69,129	57,607	54,575	23	27	4 to 6	3.0
69,558	57,965	54,914	24	28	4 to 6	3.0
71,604	59,670	56,529	15	17	4 to 6	2.9
72,134	60,112	56,948	24	27	4 to 6	2.9
72,609	60,507	57,323	17	19	4 to 6	2.9
74,659	62,216	58,941	23	25	4 to 6	2.8
75,354	62,795	59,490	26	28	4 to 6	2.8
77,770	64,808	61,397	23	24	4 to 6	2.7
77,905	64,921	61,504	24	25	4 to 6	2.7
78,253	65,211	61,778	27	28	4 to 6	2.7
81,151	67,626	64,067	23	23	4 to 6	2.6
84,157	70,130	66,439	28	27	4 to 6	2.5
84,272	70,227	66,531	27	26	4 to 6	2.5
84,679	70,566	66,852	24	23	4 to 6	2.5
87,393	72,828	68,995	28	26	4 to 6	2.4
87,643	73,036	69,192	27	25	4 to 6	2.4
88,208	73,506	69,638	25	23	4 to 6	2.4
90,698	75,582	71,604	19	17	4 to 6	2.3
91,295	76,079	72,075	27	24	4 to 6	2.3
91,736	76,447	72,423	26	23	4 to 6	2.3
94,676	78,897	74,744	28	24	4 to 6	2.2
95,264	79,387	75,209	27	23	4 to 6	2.2
98,235	81,863	77,554	23	19	4 to 6	2.1
98,793	82,327	77,994	28	23	4 to 6	2.1
102,507	85,422	80,926	24	19	4 to 6	2.0
106,778	88,981	84,298	25	19	4 to 6	2.0
109,793	91,494	86,678	23	17	4 to 6	1.9
111,049	92,541	87,670	26	19	4 to 6	1.9
114,566	95,472	90,447	24	17	4 to 6	1.8
115,320	96,100	91,042	27	19	4 to 6	1.8
119,340	99,450	94,216	25	17	4 to 6	1.8
119,591	99,659	94,414	28	19	4 to 6	1.7
124,113	103,428	97,984	26	17	4 to 6	1.7
124,432	103,693	98,235	23	15	4 to 6	1.7
128,887	107,406	101,753	27	17	4 to 6	1.6

**IMPORTANT: See "General Planting Rate Information" and "Checking Seed Population" pages for additional information. Always check seed population in the field to ensure planting rates are correct.**

# SEED METER OPERATION/MAINTENANCE

**PLANTING RATES FOR LARGE DRY EDIBLE BEAN 54 CELL DISC  
15 TOOTH CONTACT WHEEL DRIVE SPROCKET (See Page 7-1)  
APPROXIMATE SEEDS/ACRE FOR VARIOUS ROW WIDTHS**

30" Rows	36" Rows	38" Rows	Transmission Sprockets		Recomm. Speed Range (MPH)	Average Seed Spacing In Inches
			Drive	Driven		
34,321	28,601	27,096	15	28	4 to 6	6.1
35,593	29,660	28,099	15	27	4 to 6	5.9
36,961	30,801	29,180	15	26	4 to 6	5.7
38,440	32,033	30,347	15	25	4 to 6	5.4
38,898	32,415	30,709	17	28	4 to 6	5.4
40,042	33,368	31,612	15	24	4 to 6	5.2
40,338	33,615	31,846	17	27	4 to 6	5.2
41,783	34,819	32,986	15	23	4 to 6	5.0
41,890	34,908	33,071	17	26	4 to 6	5.0
43,474	36,228	34,321	19	28	4 to 6	4.8
43,565	36,304	34,394	17	25	4 to 6	4.8
45,084	37,570	35,593	19	27	4 to 6	4.6
45,380	37,817	35,827	17	24	4 to 6	4.6
46,818	39,015	36,961	19	26	4 to 6	4.5
47,354	39,461	37,384	17	23	4 to 6	4.4
48,691	40,575	38,440	19	25	4 to 6	4.3
50,579	42,149	39,931	15	19	4 to 6	4.1
50,719	42,266	40,042	19	24	4 to 6	4.1
52,626	43,855	41,547	23	28	4 to 6	4.0
52,925	44,104	41,783	19	23	4 to 6	4.0
54,575	45,479	43,086	23	27	4 to 6	3.8
54,914	45,762	43,353	24	28	4 to 6	3.8
56,529	47,108	44,628	15	17	4 to 6	3.7
56,948	47,457	44,959	24	27	4 to 6	3.7
57,323	47,769	45,255	17	19	4 to 6	3.6
58,941	49,118	46,533	23	25	4 to 6	3.5
59,490	49,575	46,966	26	28	4 to 6	3.5
61,397	51,164	48,471	23	24	4 to 6	3.4
61,504	51,253	48,556	24	25	4 to 6	3.4
61,778	51,482	48,772	27	28	4 to 6	3.4
64,067	53,389	50,579	23	23	4 to 6	3.3
66,439	55,366	52,452	28	27	4 to 6	3.1
66,531	55,442	52,524	27	26	4 to 6	3.1
66,852	55,710	52,778	24	23	4 to 6	3.1
68,995	57,496	54,470	28	26	4 to 6	3.0
69,192	57,660	54,625	27	25	4 to 6	3.0
69,638	58,031	54,977	25	23	4 to 6	3.0
71,604	59,670	56,529	19	17	4 to 6	2.9
72,075	60,062	56,901	27	24	4 to 6	2.9
72,423	60,353	57,176	26	23	4 to 6	2.9
74,744	62,287	59,009	28	24	4 to 6	2.8
75,209	62,674	59,375	27	23	4 to 6	2.8
77,554	64,629	61,227	23	19	4 to 6	2.7
77,994	64,995	61,574	28	23	4 to 6	2.7
80,926	67,438	63,889	24	19	4 to 6	2.6
84,298	70,248	66,551	25	19	4 to 6	2.5
86,678	72,232	68,430	23	17	4 to 6	2.4
87,670	73,058	69,213	26	19	4 to 6	2.4
90,447	75,372	71,405	24	17	4 to 6	2.3
91,042	75,868	71,875	27	19	4 to 6	2.3
94,216	78,513	74,381	25	17	4 to 6	2.2
94,414	78,678	74,537	28	19	4 to 6	2.2
97,984	81,653	77,356	26	17	4 to 6	2.1
98,235	81,863	77,554	23	15	4 to 6	2.1
101,753	84,794	80,331	27	17	4 to 6	2.1

**IMPORTANT: See "General Planting Rate Information" and "Checking Seed Population" pages for additional information. Always check seed population in the field to ensure planting rates are correct.**

# SEED METER OPERATION/MAINTENANCE

**PLANTING RATES FOR LARGE DRY EDIBLE BEAN 54 CELL DISC  
19 TOOTH CONTACT WHEEL DRIVE SPROCKET (See Page 7-1)  
APPROXIMATE SEEDS/ACRE FOR VARIOUS ROW WIDTHS**

30" Rows	36" Rows	38" Rows	Transmission Sprockets		Recomm. Speed Range (MPH)	Average Seed Spacing In Inches
			Drive	Driven		
43,474	36,228	34,321	15	28	4 to 6	4.8
45,084	37,570	35,593	15	27	4 to 6	4.6
46,818	39,015	36,961	15	26	4 to 6	4.5
48,691	40,575	38,440	15	25	4 to 6	4.3
49,270	41,059	38,898	17	28	4 to 6	4.2
50,719	42,266	40,042	15	24	4 to 6	4.1
51,095	42,579	40,338	17	27	4 to 6	4.1
52,925	44,104	41,783	15	23	4 to 6	4.0
53,060	44,217	41,890	17	26	4 to 6	3.9
55,067	45,889	43,474	19	28	4 to 6	3.8
55,183	45,986	43,565	17	25	4 to 6	3.8
57,106	47,589	45,084	19	27	4 to 6	3.7
57,482	47,902	45,380	17	24	4 to 6	3.6
59,303	49,419	46,818	19	26	4 to 6	3.5
59,981	49,984	47,354	17	23	4 to 6	3.5
61,675	51,396	48,691	19	25	4 to 6	3.4
64,067	53,389	50,579	15	19	4 to 6	3.3
64,245	53,537	50,719	19	24	4 to 6	3.3
66,660	55,550	52,626	23	28	4 to 6	3.1
67,038	55,865	52,925	19	23	4 to 6	3.1
69,129	57,607	54,575	23	27	4 to 6	3.0
69,558	57,965	54,914	24	28	4 to 6	3.0
71,604	59,670	56,529	15	17	4 to 6	2.9
72,134	60,112	56,948	24	27	4 to 6	2.9
72,609	60,507	57,323	17	19	4 to 6	2.9
74,659	62,216	58,941	23	25	4 to 6	2.8
75,354	62,795	59,490	26	28	4 to 6	2.8
77,770	64,808	61,397	23	24	4 to 6	2.7
77,905	64,921	61,504	24	25	4 to 6	2.7
78,253	65,211	61,778	27	28	4 to 6	2.7
81,151	67,626	64,067	23	23	4 to 6	2.6
84,157	70,130	66,439	28	27	4 to 6	2.5
84,272	70,227	66,531	27	26	4 to 6	2.5
84,679	70,566	66,852	24	23	4 to 6	2.5
87,393	72,828	68,995	28	26	4 to 6	2.4
87,643	73,036	69,192	27	25	4 to 6	2.4
88,208	73,506	69,638	25	23	4 to 6	2.4
90,698	75,582	71,604	19	17	4 to 6	2.3
91,295	76,079	72,075	27	24	4 to 6	2.3
91,736	76,447	72,423	26	23	4 to 6	2.3
94,676	78,897	74,744	28	24	4 to 6	2.2
95,264	79,387	75,209	27	23	4 to 6	2.2
98,235	81,863	77,554	23	19	4 to 6	2.1
98,793	82,327	77,994	28	23	4 to 6	2.1
102,507	85,422	80,926	24	19	4 to 6	2.0
106,778	88,981	84,298	25	19	4 to 6	2.0
109,793	91,494	86,678	23	17	4 to 6	1.9
111,049	92,541	87,670	26	19	4 to 6	1.9
114,566	95,472	90,447	24	17	4 to 6	1.8
115,320	96,100	91,042	27	19	4 to 6	1.8
119,340	99,450	94,216	25	17	4 to 6	1.8
119,591	99,659	94,414	28	19	4 to 6	1.7
124,113	103,428	97,984	26	17	4 to 6	1.7
124,432	103,693	98,235	23	15	4 to 6	1.7
128,887	107,406	101,753	27	17	4 to 6	1.6

**IMPORTANT: See "General Planting Rate Information" and "Checking Seed Population" pages for additional information. Always check seed population in the field to ensure planting rates are correct.**

# SEED METER OPERATION/MAINTENANCE

## DRY INSECTICIDE APPLICATION RATES APPROXIMATE POUNDS/ACRE AT 5 MPH FOR VARIOUS ROW WIDTHS

Meter Setting	30" Rows	36" Rows	38" Rows
<b>CLAY GRANULES</b>			
10	4.9	4.1	3.9
11	5.4	4.5	4.3
12	6.1	5.1	4.8
13	6.9	5.7	5.4
14	7.7	6.4	6.0
15	8.5	7.1	6.7
16	9.6	8.0	7.6
17	10.7	8.9	8.4
18	11.4	9.5	9.0
19	13.1	10.9	10.3
20	14.2	11.8	11.2
21	15.5	12.9	12.3
22	16.4	13.7	12.9
23	17.2	14.3	13.6
24	18.8	15.7	14.9
25	20.9	17.4	16.5
26	23.0	19.2	18.1
27	24.1	20.0	19.0
28	25.4	21.2	20.1
29	27.8	23.2	22.0
30	29.6	24.7	23.4
<b>SAND GRANULES</b>			
5	2.9	2.4	2.3
6	4.9	4.0	3.8
7	5.3	4.4	4.2
8	6.3	5.3	5.0
9	7.8	6.5	6.1
10	8.9	7.4	7.0
11	10.2	8.5	8.0
12	11.2	9.3	8.8
13	12.6	10.5	10.0
14	14.1	11.7	11.1
15	15.5	12.9	12.3
16	17.5	14.6	13.8
17	19.4	16.2	15.3
18	21.8	18.2	17.2
19	24.3	20.2	19.1
20	25.7	21.4	20.3
21	27.6	23.0	21.8
22	29.6	24.7	23.4
23	32.0	26.7	25.3
24	34.4	28.7	27.2
25	36.9	30.7	29.1

**NOTE:** The above chart represents average values and should be used only as a starting point. The granular chemical flows through the given meter opening at a nearly uniform rate regardless of roller speed. Your actual rate will vary depending upon the insecticide you are using, your planting speed and your plant population. Planting speed/ground speed has the greatest effect on application rate.

Your actual rate must be checked in the field with the actual insecticide that you are using and at the speed and population at which you will be planting. See "Checking Granular Chemical Application Rate" page for additional information.



**WARNING:** Agricultural chemicals can be dangerous if not selected and handled with care. Always read and follow directions supplied by the chemical manufacturer.

# SEED METER OPERATION/MAINTENANCE

## DRY HERBICIDE APPLICATION RATES

### APPROXIMATE POUNDS/ACRE AT 5 MPH FOR VARIOUS ROW WIDTHS

#### CLAY GRANULES

Meter Setting	30" Rows	36" Rows	38" Rows
10	4.7	3.9	3.7
11	5.2	4.4	4.1
12	5.8	4.9	4.6
13	6.5	5.4	5.1
14	7.3	6.1	5.7
15	8.2	6.9	6.5
16	9.0	7.5	7.1
17	9.9	8.2	7.8
18	10.7	8.9	8.4
19	11.6	9.7	9.2
20	12.6	10.5	10.0
21	13.6	11.3	10.7
22	14.6	12.1	11.5
23	15.7	13.1	12.4
24	17.0	14.1	13.4
25	18.1	15.1	14.3
26	19.4	16.2	15.3
27	20.9	17.4	16.5
28	22.6	18.8	17.8
29	24.3	20.2	19.1
30	26.7	22.2	21.1

**NOTE:** The above chart represents average values and should be used only as a starting point. The granular chemical flows through the given meter opening at a nearly uniform rate regardless of roller speed. Your actual rate will vary depending upon the herbicide you are using, your planting speed and your plant population. Planting speed/ground speed has the greatest effect on application rate.

Your actual rate must be checked in the field with the actual herbicide that you are using and at the speed and population at which you will be planting. See "Checking Granular Chemical Application Rate" page for additional information.



**WARNING:** Agricultural chemicals can be dangerous if not selected and handled with care. Always read and follow directions supplied by the chemical manufacturer.

# SEED METER OPERATION/MAINTENANCE

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**See “Liquid Fertilizer Rate Chart”  
in Machine Operation section.**

# SEED METER OPERATION/MAINTENANCE

## SEED METER SINGULATOR BRUSH AND VACUUM LEVEL ADJUSTMENTS

### SEED DISC SELECTION

CROP	CELLS	SEED SIZE RANGE	COLOR-CODE
Corn	39	35 To 70 Lbs./80,000 Kernel Count Unit	Light Blue
Low-Rate Corn	24	35 To 70 Lbs./80,000 Kernel Count Unit	Light Green
Popcorn	39	2210 To 4200 Seeds/Lb.	Light Blue
Low-Rate Popcorn	24	2210 To 4200 Seeds/Lb.	Light Green
Soybean	60	2200 To 4000 Seeds/Lb.	Black
High-Rate Soybean	120	2200 To 4000 Seeds/Lb.	Dark Blue
Milo/Grain Sorghum	60	10,000 To 20,000 Seeds/Lb.	Yellow
Hill-Drop Cotton, Acid-Delinted (3 Seeds Per Cell)	20	3800 To 5200 Seeds/Lb.	Brown
Cotton, Acid-Delinted	54	3800 To 5200 Seeds/Lb.	Dark Green
Dry Edible Bean (Small)	54	1200 To 2500 Seeds/Lb.	Dark Green
Dry Edible Bean (Large)	54	800 To 1200 Seeds/Lb.	Tan
Small Cotton/Sunflower	54	4200 To 5200 Seeds/Lb.	White

### EDGEVAC® INITIAL SETTINGS

CROP	SIZE	SINGULATOR SEED DISC	VACUUM BRUSH SETTING	SETTING (H <sub>2</sub> O)	SEE NOTES
Corn	35-45 Lbs./80K	Corn/Popcorn	7	20	4, 5
	45-60 Lbs./80K	Corn/Popcorn	6	20	4, 5
	60-70 Lbs./80K	Corn/Popcorn	5	20	4, 5
Popcorn	2210-4200 Seeds/Lb.	Corn/Popcorn	9	18	1, 4, 5
Soybeans	2200-4000 Seeds/Lb.	Soybean	5	10	1
Milo/Grain Sorghum	10,000-20,000 Seeds/Lb.	Milo/Grain Sorghum	7	18	1, 2
Hill-Drop Cotton	3800-5200 Seeds/Lb.	Hill-Drop Cotton	8	23	3
Cotton	3800-5200 Seeds/Lb.	Cotton	8	20	3
Edible Beans	800-1200 Seeds/Lb.	Large Edible Bean	5	18	5
	1200-2500 Seeds/Lb.	Small Edible Bean	6	18	3, 5
Small Cotton/Sunflower	4200-5200 Seeds/Lb.	Small Cotton/Sunflower	5	20	3

#### NOTES:

1. Requires use of seed meter baffle. Refer to page 7-3 for additional information.
2. Requires use of cleanout brush. Refer to page 7-3 for additional information.
3. Requires use of cleanout brush w/ball-type ejector. Refer to page 7-3 for additional information.
4. For flat seeds, higher vacuum level may be required.
5. Larger seeds may require a lower numbered singulator brush setting from the initial setting. Smaller seeds may require a higher numbered setting.

Refer to the planting rate charts in this manual for seed drive transmission sprocket combinations.

**IMPORTANT:** See “General Planting Rate Information” and “Checking Seed Population” pages for additional information. Always check seed population in the field to ensure planting rates are correct.

**NOTE:** Singulator brush settings are marked from 1 thru 11. The lower the singulator brush setting, the less aggressive. The higher singulator brush settings are the most aggressive. Refer to illustrations on page 7-24.

**NOTE:** Optimum meter performance will be attained with consistent seed size and shape. A mixture of seed sizes and shapes will affect meter performance.

**NOTE:** Use 1 tablespoon powdered graphite with each hopper fill of seed. Seed treatment, foreign material, dirt or seed chaff may cause gradual reduction of seed disc fill (population). See “Seed Meter”.

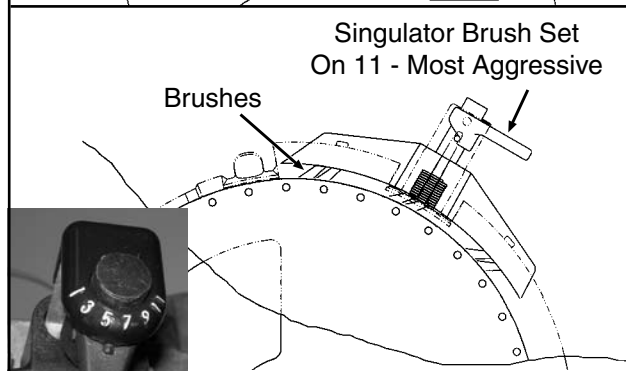
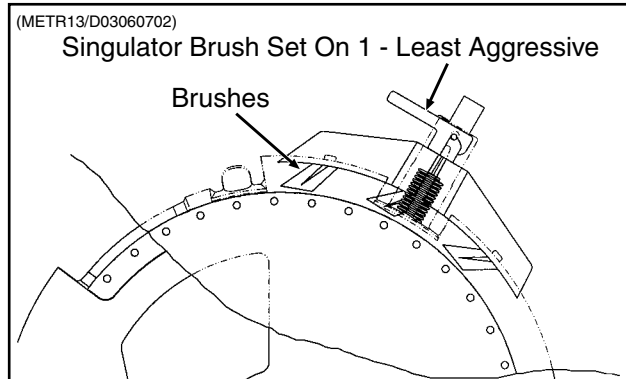
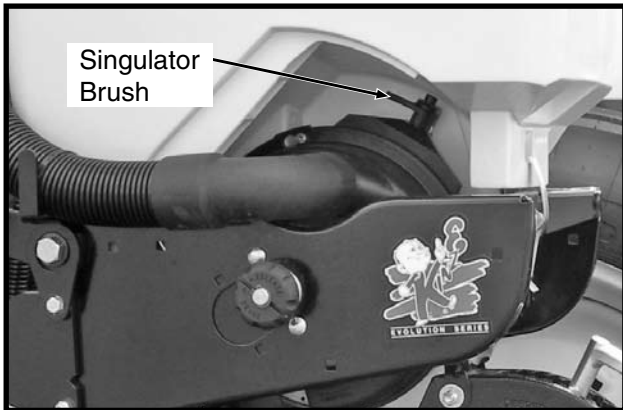
**NOTE:** Excessive seed treatment, humidity and light-weight seed can affect meter performance. Use ½ cup of talc with each hopper fill of seed and mix thoroughly so that all seeds are coated, adjust rates as needed. Use of talc will aid the seed flow into the meter, singulation and seed drop from the disc.

# SEED METER OPERATION/MAINTENANCE

**STEP 1** Select seed disc (and seed meter baffle, cleanout brush and/or cleanout brush w/ball-type ejector if applicable) to match crop and population.

**STEP 2** Adjust the singulator brush to initial setting. Note that seed size, seed shape, seed treatments, travel speed and planting rate will all affect meter performance.

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**STEP 3** With vacuum fan running, lower planter to planting position and drive forward a short distance to load seed into the seed disc cells.

Adjust vacuum level to the initial setting according to the tables on preceding page. Note that seed size, seed shape, seed treatments, travel speed and planting rate will all affect meter performance.

**NOTE: Vacuum reading will be much lower when seed disc cells are empty. Prior to setting vacuum level, load all seed cells.**

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See "Digital Vacuum Gauge Operation" in Machine Operation section

**NOTE: Operate vacuum fan 3-5 minutes to bring oil up to normal operating temperature prior to making the final vacuum level adjustment.**

**STEP 4** Perform optional seed disc fill check.

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With vacuum hose connected and vacuum fan operating, remove vacuum cover and seed disc as an assembly. Inspect seed discs for proper seed fill.

See "Seed Metering System Troubleshooting" at the end of this section.

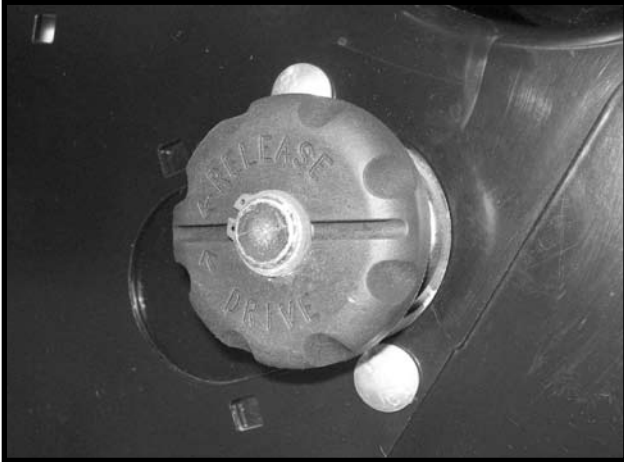
# SEED METER OPERATION/MAINTENANCE

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## SEED METER DRIVE RELEASE

The seed meter drive is equipped with a clutch release mechanism that allows the drive to be disengaged from the seed metering unit for removal of the seed meter and mount or hopper. Disconnecting the drive allows the operator to check granular chemical application rates without dropping seed. It also allows the drive to one or more of the rows to be disconnected when finishing fields.

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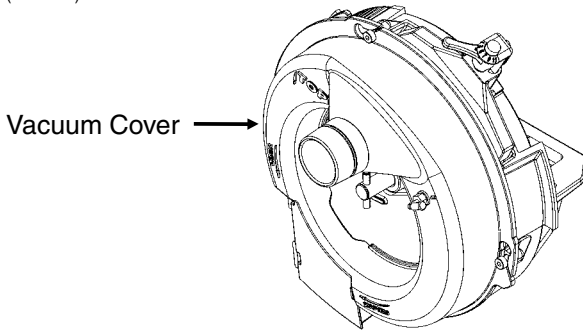


To disengage the drive, turn the knob  $\frac{1}{4}$  turn counterclockwise. To engage the drive, turn the knob  $\frac{1}{4}$  turn clockwise.

# SEED METER OPERATION/MAINTENANCE

## SEED METER MAINTENANCE

(METR71)



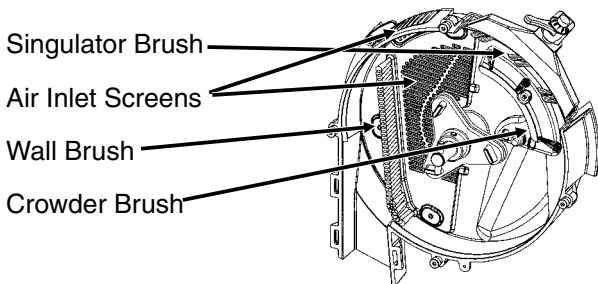
Clean, high quality seed should be used for maximum meter accuracy. Damaged or cracked seed, hulls or foreign material may become lodged in the seed disc orifices and greatly reduce meter accuracy.

It is suggested that the seed disc be inspected and cleaned daily, checking for any buildup of foreign material or any blocked orifices. Clean the seed disc by washing it with soap and water as needed. Dry thoroughly.

Inspect singulator brush for wear and replace if necessary following every 200 acres per row of operation.

The seed disc and/or vacuum cover should be replaced if abnormally high vacuum is required for consistent operation or if consistent operation can not be achieved. If adjustment of the singulator brush does not affect performance of the meter or if the brushes appear frayed, the singulator brush may need to be replaced. If the seed disc orifices are plugged frequently with seed remnants, the cleanout brush or cleanout brush with ball-type ejector (if applicable) may need to be replaced. High quality seed should be used to attain best performance.

(METR70)



Prior to each planting season, inspect seed discs, singulator brush, crowder brush, wall brush and air inlet screens and clean or replace as needed.

See "Preparation For Storage" for additional EdgeVac® Seed Metering System maintenance.

**IMPORTANT: Replace hopper lids after hoppers are filled to prevent accumulation of dust or dirt in the seed meter which will cause premature wear.**

**NOTE: Remove seed discs from meters for annual storage and store the seed discs vertically on a dowel or pipe.**

## VACUUM MANIFOLD MAINTENANCE

In the course of normal operation, dust will accumulate in manifolds and hoses. Manifolds should be cleaned annually. More frequent cleaning may be necessitated by abnormally dusty planting conditions.

Remove vacuum hose from each seed meter. Operate the vacuum fan at full hydraulic flow from the tractor for two minutes to clear manifolds, hoses and fittings of dust and debris.

# SEED METER OPERATION/MAINTENANCE

## SEED METERING SYSTEM TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Low seed count.	Meter RPM too high.	Reduce planting rate or planting speed.
	Singulator brush setting too aggressive.	Adjust singulator brush.
	Vacuum level too low.	Increase fan speed.
	Seed sensor not picking up all seeds dropped.	Clean seed tube. Move meter to different row.
	Seeds sticking to seed disc.	Use graphite or talc to aid release.
	Seed treatment buildup in seed disc recesses.	Reduce amount of treatment used and or mix thoroughly. Add talc.
	Seed size too large for disc used.	Use appropriate disc for seed size.
	Wrong transmission setting.	Change transmission to desired rate.
	Wrong seed disc.	Use appropriate disc for seed type and size.
	Drive wheel slippage.	Compensate by adjusting transmission sprockets.
	Low tire pressure.	Adjust tire pressure to correct level.
	Failed/worn drive components.	Inspect and replace parts as required.
	Plugged orifices in seed disc.	Inspect and clean disc. Check cleanout brush. (If Applicable)
	Loss of vacuum at meter.	Check for foreign material between vacuum cover and disc. Inspect parts for wear/damage. Clean or replace as required.
	Seed bridging in hopper.	Add graphite to improve seed flow.
	Faulty vacuum gauge reading.	Repair/replace gauge.
	Dirt in vacuum manifold.	Check vacuum manifold for dirt and clean.
	Seed baffle (If Applicable) not allowing seed flow due to bridging of seed.	Thoroughly mix talc to coat all seeds. Remove seed baffle. See "Seed Meter" in Seed Meter Operation/Maintenance section.
	60 cell soybean disc not filling properly due to excessive RPM.	Replace with 120 cell soybean disc.
	Seed disc worn.	Replace.
Vacuum cover worn.	Replace.	
Not planting seed.	Seed hoppers empty.	Fill seed hopper.
	Seed tube plugged/damaged.	Clean or replace tube.
	Meter drive damaged.	Repair/replace drive components.
	Low/no vacuum.	Inspect vacuum system and repair as necessary.
	Singulator brush setting too aggressive.	Adjust singulator brush.
	Faulty vacuum gauge.	Repair/replace vacuum gauge.
	Seed bridging in hopper.	Add graphite to improve seed flow.
	Loss of vacuum at meter.	Check for foreign material between vacuum cover and disc. Inspect parts for wear/damage. Clean and/or replace as required.
	Wrong seed disc.	Use appropriate disc for seed type and size.
	Meter drive clutch not engaged.	Engage drive clutch.
	Fan not running.	Start fan.
Dirt in vacuum manifold.	Check vacuum manifold for dirt and clean.	

(Continued On Following Page)

# SEED METER OPERATION/MAINTENANCE

## SEED METERING SYSTEM TROUBLESHOOTING (Continued)

PROBLEM	POSSIBLE CAUSE	SOLUTION
Not planting seed. (Continued)	Seed baffle (If Applicable) not allowing seed flow due to bridging of seed.	Thoroughly mix talc to coat all seeds. Remove seed baffle. See "Seed Meter" in Seed Meter Operation/Maintenance section.
	60 cell soybean disc not filling properly due to excessive RPM.	Replace with 120 cell soybean disc.
High seed count.	Wrong transmission setting.	Change transmission to desired rate.
	High vacuum.	Adjust vacuum level to appropriate level.
	Wrong seed disc.	Replace seed disc.
	Singulator brush setting not aggressive enough.	Adjust singulator brush.
	Worn singulator brush.	Inspect brush and replace as required.
	Seed leaking past wall brush.	Inspect wall brush condition and installation. Replace as necessary.
	Faulty vacuum gauge.	Check gauge line for dirt/obstruction. Repair/replace vacuum gauge.
Poor seed spacing.	Obstruction in seed tube.	Clean seed tube.
	Dirty/damaged seed disc.	Inspect seed disc for damage, foreign material in orifices or seed treatment buildup in recesses. Clean or replace as required.
	Wrong vacuum setting.	Adjust vacuum to appropriate level.
	Excess foreign material in seed.	Inspect and clean meter and seed discs. Use clean, undamaged seed.
	Incorrect singulator brush setting.	Adjust singulator brush to appropriate setting.
	Inconsistent driveline.	Inspect drive components for rust, misalignment, worn or damaged parts. Replace/repair as required.
	Toolbar not level or wrong height.	Adjust hitch to level toolbar and row units.
	Planting too fast for conditions.	Reduce speed.
	Rough field conditions.	Reduce speed.
Irregular seed population.	Driving too fast.	Reduce speed.
	Drive wheels slipping.	Reduce speed. Decrease row unit down pressure spring settings.
Unable to achieve desired vacuum level.	Tractor hydraulic flow set too low.	Increase flow to fan motor.
	Incorrect hydraulic connections.	Check all hydraulic connections and hose routings.
	Damaged fan components.	Inspect motor and impeller for wear/damage and repair/replace as necessary.
	Vacuum hose pinched/kinked/ blocked.	Inspect air lines for any damage or obstruction. Clean air lines and manifold by removing end cap from manifold and running fan at high speed.
	Vacuum hose loose/disconnected.	Inspect and reattach all air hoses.
	Tractor not producing required hydraulic flow/pressure.	Have tractor serviced by qualified technician.
	Dirt in vacuum gauge line.	Check gauge line for dirt/obstruction and clean.