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Seed and Liquid Fertilizer Rate Charts for the YP2425 and YP2425F Planters

The following pages are to assist in the proper setting of seeding and fertilizer rates for the YP2425 and YP2425F 60-Foot Yield-Pro® planters. For volumetric seeds, the rate ranges indicated in the charts are approximate values. To assure the most accurate volumetric seeding rate it is recommended that the planter and meters be calibrated for the desired seed at the time of planting.

ORIGINAL INSTRUCTIONS

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Introduction

This manual covers the following tasks for three-section 60-Foot Yield-Pro® Planters equipped with Singulator Plus™ or finger pickup meters[a]:

- setting and checking seed rate for singulated crops
- applying liquid fertilizer from an optional tank cart.

This manual is your guide to planter adjustments for achieving specific seed population targets. It also This manual is your guide to planter adjustments for achieving specific seed population targets. It also includes information you may need to properly setup and adjust a separately provisioned fertilizer tank and pump system.

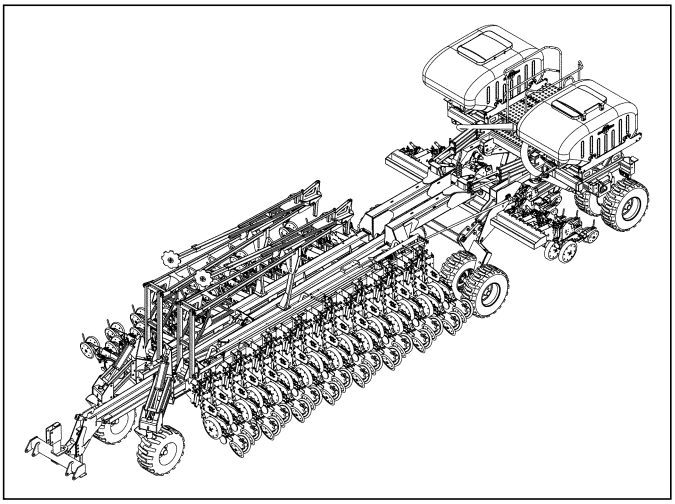

Figure 1 25205
YP2425 Planter

Covered Models[b]

This manual applies to the following YP24[a] Planters.

YP2425-2430	24-Row, 30 inch Spacing
YP2425-2470	24-Row, 70 cm Spacing
YP2425F-2470	24-Row, 70 cm, Dry Fertilizer[b]
YP2425-3620	36-Row, 20 inch Spacing
YP2425-4715	47-Row, 15 inch Spacing
YP2425-48TR	48-Twin Row (24 Pairs), 30 inch Pair-to-Pair Spacing

Document Family

401-406M	Operator Manual
401-406B	Seed Rate Manual (this manual)
401-406P	Parts Manual
403-362M	Dry Fertilizer Supplement
110011501	DICKEY-john® IntelliAg® User Level 2+3
110011508	DICKEY-john® Intelli-ag User Level 1
Quick Start Guides (QSG):	
110011429	DICKEY-john® YP2425-48TR QSG
110011430	DICKEY-john® YP2425-4715 QSG
110011431	DICKEY-john® YP2425-2430 QSG
110011432	DICKEY-john® YP2425-3620 QSG
110011433	DICKEY-john® YP2425-2470 QSG

Setting Planting Rate

Although some setup/adjustment material herein is repeated from the Operator's Manual, you need to be thoroughly familiar with planter operations and adjustments before applying this Seed Rate manual and its table data.

For singulated planting, begin with "**Singulated Planting Overview**" on page 2, then get specific data from:
"**Finger Meter Planting**" on page 15, or
"**Singulator Plus™ Meter Planting**" on page 8

For volumetric planting, begin at:
"**Volumetric Meter Planting**" on page 25.

Setting Liquid Fertilizer Rate

This topic is covered beginning at:
"**Liquid Fertilizer Rate**" on page 37.

a. Seed rates for YP2425A planters equipped with AirPro™ meters are provided in manual 401-626B.
b. Dry Fertilizer rates for the YP2425F-2470 are covered in manual 403-362M.

Singulated Planting Overview

The information in this section covers important setup and checking information that applies to both:
Singulator Plus™ (wheel, at left in Figure 2) meters and Finger Pickup meters (at right in Figure 2).

There are additional Sections for each meter. See also:
"**Finger Meter Planting**" on page 15 and
"**Singulator Plus™ Meter Planting**" on page 8.

Singulated planting employs the seed monitor in:

- "PLANTER CONTROL" mode with optional hydraulic drive, or
- "MONITOR ONLY" mode with ground drive.

NOTICE

Population Risk:
If the seed monitor is presently in GRAN SEED mode, follow the setup instructions carefully. Switching between seeding modes can cause some planter configuration values to be reset to defaults that are incorrect for your planter.

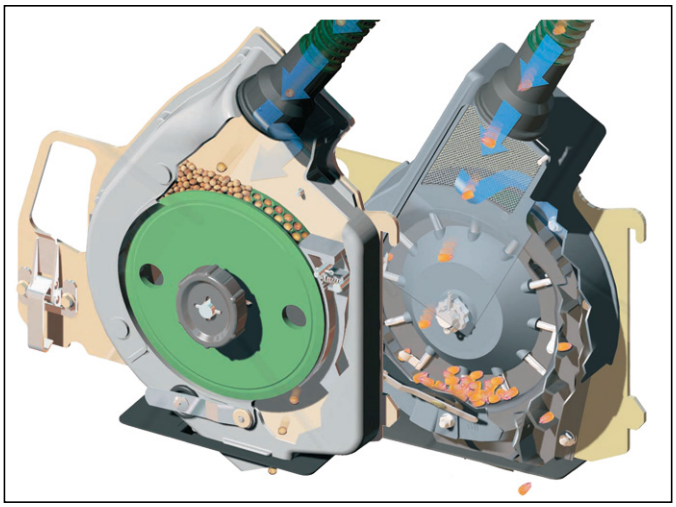

Figure 2 29243
Singulating Seed Meters

Singulated Rate Setting Overview

1. For your crop, determine your intended population, in seeds/acre or seeds/hectare. If you know only the population, the charts on page 6 and 7 correlate population to seed spacing for several row spacings.
2. For your crop, population and desired field speed, verify the suitability and setup of your meter type, and seed wheel part number or finger count.

   For Singulator Plus seed meters and wheels, details and charts are found in "**Singulator Plus™ Meter Planting**" on page 8.

   For Finger Pickup meters, details and charts are found in "**Finger Meter Planting**" on page 15.
3. Set meter rate. See "**Hydraulic Drive Meter Rate**" on page 3.
4. Verify your planting rate per the instructions at: "**Checking Planting Rate**" on page 4. If the results are consistent with your setup, plant the crop.

Plant Population Seeds/Acre	Row Spacing			
			30in Twin	
	10in Single	20in Single	15in Single	30in Single
	Seed Spacing			
14,000	44.8 in	22.4 in	29.9 in	14.9 in
15,000	41.8 in	20.9 in	27.9 in	13.9 in

Plant Population Seeds/Acre	Row Spacing		
			30in Twin
	10in Single	20in Single	15in Single
	Seed Spacing		
50,000	12.5 in	8.4 in	6.3 in
55,000	11.4 in	7.6 in	5.7 in

Note: *Adjust Finger Pickup meters for the seed*
This only applies to finger pickup meters.
See "**Finger Meter Adjustments**" on page 18.
Always start with factory settings.

Hydraulic Drive Meter Rate

Hydraulic drive meter rate is set directly on the seed monitor in the tractor. Consult the monitor manual for detailed instructions, which may vary slightly over time with firmware updates to the monitor system.

You will need to enter/update your planter configuration (width/row-count, single-row/twin, meter type, wheel cell count, etc.). Once entered, you can specify the desired population directly in seeds per acre or per hectare.

Although the sprocket information in the Seed Rate Charts of this manual does not apply to hydraulic drive, recommended planting speeds (in mph or kph) do apply.

Note: For most consistent results, and least wear on the meters, check the seed rate chart for the crop or meter type/seed wheel, and do not exceed the recommended ground speed.

For step 1 through step 4, any needed data not provided in this manual can be found in one or more of:
DICKEY-john® Quick Start Guide
Planter Operator Manual
Refer to the DICKEY-john® IntelliAg® Planter/Drill Control Operator's Manuals for details on setup items.

Note: The monitor must be in User Level 2 to change some of these parameters.

1. For a crop not previously planted with this planter, create a "Material Name" for the crop. Selecting a named material is a required step in later screens.
2. Verify, and as necessary setup or update the "Material" record for the singulated seed to be planted.

   The table at right lists the parameters that need to be reviewed or set. Values in <angle brackets> are at your choice or preference.
3. Verify, and as necessary setup or update the "Channel" assigned to the planter's hydraulic drive. If the monitor resets to defaults, Gear Ratio may be incorrect.

   Count rows individually for "# Seed Rows". A twin pair (if both openers are in use) counts as 2 rows. "Channel Width" is swath.
4. In the Material Library screen, makes sure that the Material (SOYBEANS in our example) is assigned to the Channel (CH 1 in our example) which controls the planter's hydraulic drive.
5. Perform a Valve Calibration for the control channel.
6. Switch the seed monitor from Setup/Configuration mode to Operate mode. Load seed. Move the planter to the field.

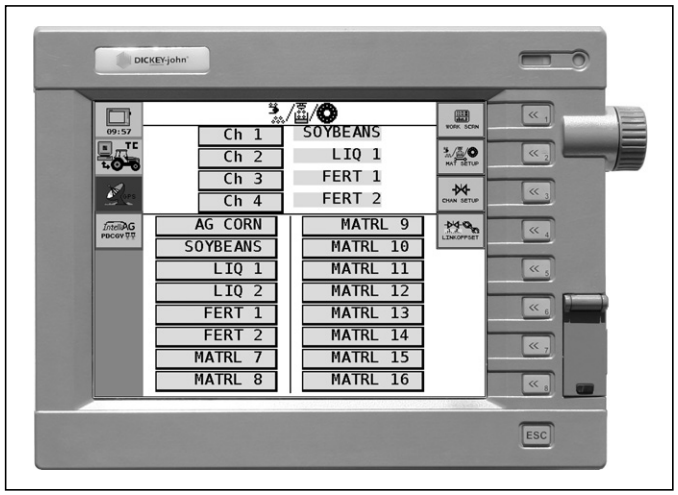

Figure 3
Control Setup Screen
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Material	Data Required
Material Name	<crop name, such as "SOYBEANS">
Channel	"CH 1" (typically, can be 1-4)
Type	"PLANTER CONTROL"
Preset Method	"Disabled" unless populations vary
Target Rate	<your election>
Max Rate	<110% of Target> is suggested
Min Rate	<90% of Target> is suggested
Inc/Dec	"1.0%" is suggested
Seeds Per Rev	<seed wheel cell count or finger count>
Disc Low Limit	<from Rate Range or Wheels chart>
Disc High Limit	<from Rate Range or Wheels chart>
High Pop Alarm	<"20%"> is suggested
Low Pop Alarm	<"20%"> is suggested
Prod Level Alarm	0

Channel	Data Required
CHANNEL 1	(must be channel specified above)
Type	"PLANTER CONTROL"
Material Name	(must be material name specified above)
Control Mode	Auto
Drive Type	PWM 2
Drive Freq.	100 Hz
Input Filter	50%
Gear Ratio	1.900
Sensor Constant	360
# Seed Rows	48 (twin row) or 24 (single row)
Channel Width	720
Precharge Time	0
Delay Time	0
Flush Enable	Disabled

Checking Planting Rate

Singulated seed charts are based on cleaned and sized seed singulated with the recommended meter and wheel or finger count. Extreme seed size variations, foreign material and tire pressure can affect the planting rate.

Any material difference between chart and field rates implies a mechanical malfunction, a planter setup error, unsuitable planting conditions (such as excessive tire slippage) or extremely worn planter components. You can verify your setup and planter performance by measuring seed placement and spacing over a relatively short distance.

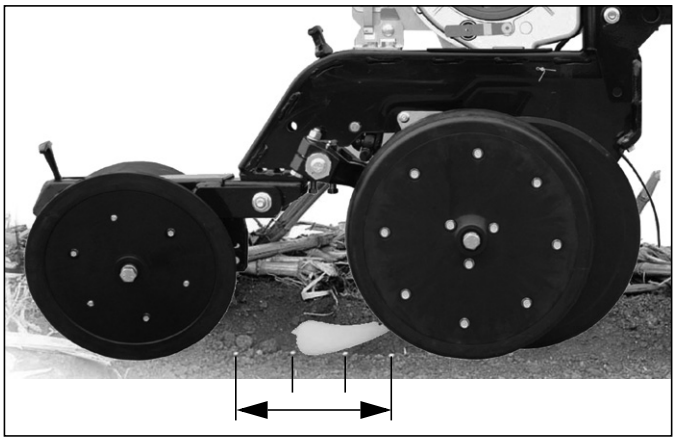

Figure 4
Furrow Check

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The columns to the right provide example data for a rate check, in U.S. customary units and a similar example metric units.

US Example:	Metric Example:
Planter: YP2425-2430	Planter: YP2425-2470
Crop: Soybeans	Crop: Soybeans
Density: 3000 seeds/lb.	Density: 6614 seeds/kg
Meter Wheel: 403-124D	Meter Wheel: 403-124D
Target Population: 123,000 seeds/acre	Target Population: 438 000 seeds/hectare
Maximum Planting Speed: 6 mph	Maximum Planting Speed: 9.6 kph
Chart Seed Spacing: 1.7 inch	Chart Seed Spacing: 3.3 cm

Checking Singulated Rates

1. Determine the sample distance to check. Find your row spacing in the table at right.
2. Note the number of rows to sample. Adjust the planting depth to a shallow setting on one or two outside rows (per table). Tie up the press wheel arms with wire or bungee to prevent furrow closure.
3. Decide whether to use $^{1}/_{1000}{}^{th}$ or $^{1}/_{200}{}^{th}$ of an acre or hectare as the sample size. $^{1}/_{200}{}^{th}$ provides a more accurate sample.
4. Configure the planter for the chart rate, either using the chart settings for sprockets, or, with hydraulic drive, selecting the rate on the seed monitor.

Rows to Sample		Length of Sample Run	
Row Spacing	Number	1/1000th Hectare	1/200th Hectare
70 cm Single	1	14.29 m	71.43 m
Row Spacing	**Number**	**1/1000th Acre**	**1/200th Acre**
15 in. Single	2	17 ft. 5 in.	87 ft. 1 in.
30 in. Twin	1 pair	17 ft. 5 in.	87 ft. 1 in.
20 in. Single	1	26 ft. 2 in.	130 ft. 8 in.
30 in. Single	1	17 ft. 5 in.	87 ft. 1 in.

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5. Plant at the desired planting speed for slightly more than the computed sample run length.
6. Measure off the sample distance, balanced in between where seeding started and stopped.
7. Count the number of seeds over the distance measured. Also note the consistency of the seed spacing.
8. Compute the rate for a full acre or hectare.

   For a $^{1}/_{1000}^{th}$ sample, multiply the counted seeds by 1000.

   For a $^{1}/_{200}^{th}$ sample, multiply the counted seeds by 200.
9. If the sample size is near 100 seeds it is likely that at least 1% of any error is due to the small sample. A higher seed count provides higher confidence. Even errors up to 3% or more may require no action, as the speed change for a single sprocket re-pairing can be that much.
10. If the field and chart rates vary by more than a few percent, re-check planter setup, including meter wheel or finger count, air system, tire size, tire pressures, sprocket or hydraulic drive setup, chain slack, etc. If seed spacing is irregular, this suggests a seed delivery problem, and not a rate setup problem.
11. If the planter is correctly set up, you may want to adjust the setup slightly to achieve the desired field rate. If any adjustments are made, be sure to perform another furrow check on the new setup.
12. While planting, pay attention to the seed monitor. In addition to confirming the single-row furrow check, it will also provide field rate data on all the other rows, and alert you to any irregularities or stoppages.

Note: For most consistent results, and least wear on the meters, check the seed rate chart for the crop or meter type/wheel, and do not exceed the recommended ground speed.

USc Example:	Metric Example:
Sample size: $^{1}/_{1000}^{th}$ ac	Sample size: $^{1}/_{1000}^{th}$ ha
Plant for approximately: 25 feet	Plant for approximately: 20 meters
Measure the central: 17 feet 5 inches	Measure the central: 14.29 meters

USc Example:	Metric Example:
Seeds counted: 121	Seeds counted: 300
Computed for full acre: 121 x 1000 = 121,000	Computed for full hectare: 300 x 1000 = 300,000
This differs from chart by: 1.8%	This differs from chart by: 0.6%

Singulated Seed Spacing

Singulated Spacing: U.S. Customary Units

For Singulator Plus wheels, and finger pickup meters.

Crop Population Per Acre	30 inch Twin Row Spacing			
	15 inch Single	20 inch Single	70 cm Single	30 inch Single
	Seed Spacing (Inches)			
14,000	29.9	22.4	16.3	14.9
15,000	27.9	20.9	15.2	13.9
16,000	26.1	19.6	14.2	13.1
17,000	24.6	18.4	13.4	12.3
18,000	23.2	17.4	12.6	11.6
19,000	22.0	16.5	12.0	11.0
20,000	20.9	15.7	11.4	10.5
21,000	19.9	14.9	10.8	10.0
22,000	19.0	14.3	10.3	9.5
23,000	18.2	13.6	9.9	9.1
24,000	17.4	13.1	9.5	8.7
25,000	16.7	12.5	9.1	8.4
26,000	16.1	12.1	8.8	8.0
27,000	15.5	11.6	8.4	7.7
28,000	14.9	11.2	8.1	7.5
29,000	14.4	10.8	7.8	7.2
30,000	13.9	10.5	7.6	7.0
31,000	13.5	10.1	7.3	6.7
32,000	13.1	9.8	7.1	6.5
33,000	12.7	9.5	6.9	6.3
34,000	12.3	9.2	6.7	6.1
35,000	11.9	9.0	6.5	6.0
36,000	11.6	8.7	6.3	5.8
37,000	11.3	8.5	6.2	5.7
38,000	11.0	8.3	6.0	5.5
39,000	10.7	8.0	5.8	5.4
40,000	10.5	7.8	5.7	5.2
41,000	10.2	7.6	5.6	5.1
42,000	10.0	7.5	5.4	5.0
43,000	9.7	7.3	5.3	4.9
44,000	9.5	7.1	5.2	4.8
45,000	9.3	7.0	5.1	4.6
46,000	9.1	6.8	4.9	4.5
47,000	8.9	6.7	4.8	4.4
48,000	8.7	6.5	4.7	4.4
49,000	8.5	6.4	4.6	4.3

Crop Population Per Acre	30 inch Twin Row Spacing			
	15 inch Single	20 inch Single	70 cm Single	30 inch Single
	Seed Spacing (Inches)			
50,000	8.36	6.27	4.55	4.18
55,000	7.60	5.70	4.14	3.80
60,000	6.97	5.23	3.79	3.48
65,000	6.43	4.83	3.50	3.22
70,000	5.97	4.48	3.25	2.99
75,000	5.58	4.18	3.03	2.79
80,000	5.23	3.92	2.85	2.61
85,000	4.92	3.69	2.68	2.46
90,000	4.65	3.48	2.53	2.32
95,000	4.40	3.30	2.40	2.20
100,000	4.18	3.14	2.28	2.09
105,000	3.98	2.99	2.17	1.99
110,000	3.80	2.85	2.07	1.90
115,000	3.64	2.73	1.98	1.82
120,000	3.48	2.61	1.90	1.74
125,000	3.35	2.51	1.82	1.67
130,000	3.22	2.41	1.75	1.61
135,000	3.10	2.32	1.69	1.55
140,000	2.99	2.24	1.63	1.49
145,000	2.88	2.16	1.57	1.44
150,000	2.79	2.09	1.52	1.39
155,000	2.70	2.02	1.47	1.35
160,000	2.61	1.96	1.42	1.31
165,000	2.53	1.90	1.38	1.27
170,000	2.46	1.84	1.34	1.23
175,000	2.39	1.79	1.30	1.19
180,000	2.32	1.74	1.26	1.16
185,000	2.26	1.70	1.23	1.13
190,000	2.20	1.65	1.20	1.10
195,000	2.14	1.61	1.17	1.07
200,000	2.09	1.57	1.14	1.05
225,000	1.86	1.39	1.01	0.93
250,000	1.67	1.25	0.91	0.84
275,000	1.52	1.14	0.83	0.76
300,000	1.39	1.05	0.76	0.70

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Singulated Spacing: Metric Units

For Singulator Plus wheel, and finger pickup meters.

Crop Population Per Hectare	30 inch Twin 15 inch Single	Row Spacing 20 inch Single	70 cm Single	30 inch Single
	Seed Spacing (cm)			
34 595	75.9	56.9	41.3	37.9
37 066	70.8	53.1	38.5	35.4
39 537	66.4	49.8	36.1	33.2
42 008	62.5	46.9	34.0	31.2
44 479	59.0	44.3	32.1	29.5
46 950	55.9	41.9	30.4	28.0
49 421	53.1	39.8	28.9	26.6
51 892	50.6	37.9	27.5	25.3
54 363	48.3	36.2	26.3	24.1
56 834	46.2	34.6	25.1	23.1
59 305	44.3	33.2	24.1	22.1
61 776	42.5	31.9	23.1	21.2
64 247	40.9	30.6	22.2	20.4
66 718	39.3	29.5	21.4	19.7
69 189	37.9	28.5	20.6	19.0
71 660	36.6	27.5	19.9	18.3
74 131	35.4	26.6	19.3	17.7
76 602	34.3	25.7	18.6	17.1
79 073	33.2	24.9	18.1	16.6
81 544	32.2	24.1	17.5	16.1
84 015	31.2	23.4	17.0	15.6
86 487	30.3	22.8	16.5	15.2
88 958	29.5	22.1	16.1	14.8
91 429	28.7	21.5	15.6	14.4
93 900	28.0	21.0	15.2	14.0
96 371	27.2	20.4	14.8	13.6
98 842	26.6	19.9	14.5	13.3
101 313	25.9	19.4	14.1	13.0
103 784	25.3	19.0	13.8	12.6
106 255	24.7	18.5	13.4	12.4
108 726	24.1	18.1	13.1	12.1
111 197	23.6	17.7	12.8	11.8
113 668	23.1	17.3	12.6	11.5
116 139	22.6	16.9	12.3	11.3
118 610	22.1	16.6	12.0	11.1
121 081	21.7	16.3	11.8	10.8

Crop Population Per Hectare	30 inch Twin 15 inch Single	Row Spacing 20 inch Single	70 cm Single	30 inch Single
	Seed Spacing (cm)			
123 552	21.2	15.9	11.6	10.6
135 907	19.3	14.5	10.5	9.66
148 263	17.7	13.3	9.64	8.85
160 618	16.3	12.3	8.89	8.17
172 973	15.2	11.4	8.26	7.59
185 328	14.2	10.6	7.71	7.08
197 684	13.3	9.96	7.23	6.64
210 039	12.5	9.37	6.80	6.25
222 394	11.8	8.85	6.42	5.90
234 749	11.2	8.39	6.09	5.59
247 104	10.6	7.97	5.78	5.31
259 460	10.1	7.59	5.51	5.06
271 815	9.66	7.24	5.26	4.83
284 170	9.24	6.93	5.03	4.62
296 525	8.85	6.64	4.82	4.43
308 880	8.50	6.37	4.62	4.25
321 236	8.17	6.13	4.45	4.09
333 591	7.87	5.90	4.28	3.93
345 946	7.59	5.69	4.13	3.79
358 301	7.33	5.49	3.99	3.66
370 657	7.08	5.31	3.85	3.54
383 012	6.85	5.14	3.73	3.43
395 367	6.64	4.98	3.61	3.32
407 722	6.44	4.83	3.50	3.22
420 077	6.25	4.69	3.40	3.12
432 433	6.07	4.55	3.30	3.03
444 788	5.90	4.43	3.21	2.95
457 143	5.74	4.31	3.12	2.87
469 498	5.59	4.19	3.04	2.80
481 854	5.45	4.09	2.96	2.72
494 209	5.31	3.98	2.89	2.66
555 985	4.72	3.54	2.57	2.36
617 761	4.25	3.19	2.31	2.12
679 537	3.86	2.90	2.10	1.93
741 313	3.54	2.66	1.93	1.77

34121B

Singulator Plus™ Meter Planting

Singulating meter planting rate is determined by:

- crop and seed variant
- meter wheel selection, and
- meter drive configuration

There are no other adjustments.

Volumetric planting with Singulator Plus™ meters is covered on page 25.

NOTICE

Population Consistency Risk:
Maximum recommended speed is 7 miles per hour (11.3 kph), based on maximum meter rpms.

Reading a Singulated Rate Chart

1. Know your intended seed population (see charts on page 6 and page 7 if only seed spacing is known). For example: 200,000 seeds per acre.
2. Consult the chart for your crop and meter wheel/cell count, for example: Milo and 135 cell.
3. Verify that your seed density is compatible with the seed wheel.
4. Find the chart with your row spacing, for example: 30 inch twin row.
5. Note which Maximum and Minimum rows cover your intended population. For example, three rows apply to 40,000 seeds/ac.
6. Choose a field speed that is covered by the Min/Max population bands.
7. The listed meter rpm limits are for reference. If you use a compatible field speed from the chart, meter rpm is assured to be within limits.
8. Enter the population in the seed monitor.

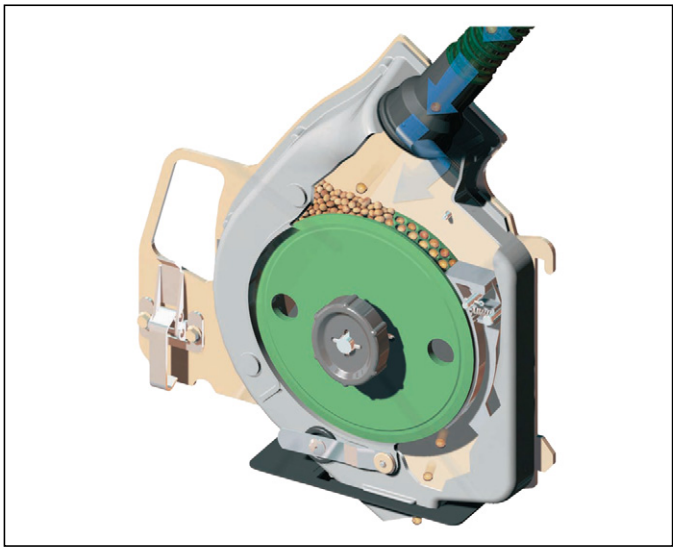
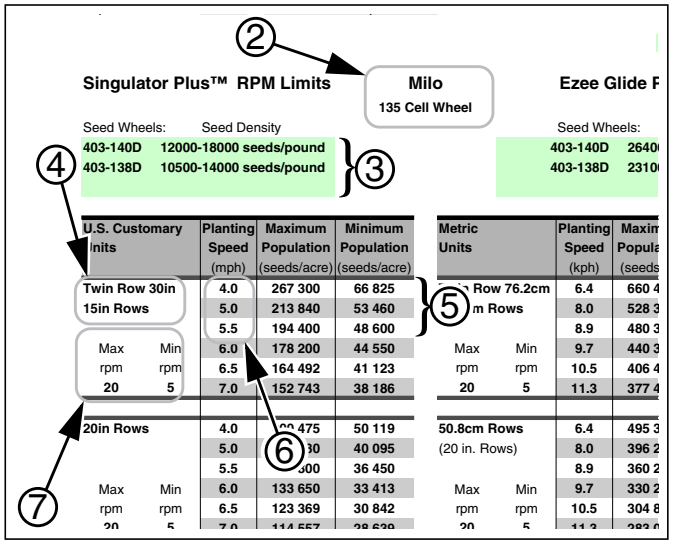


Figure 5
Singulator Plus™ Meter

29343



Singulator Plus™ Charts

Singulator Plus™ RPM Limits — Cotton — Ezee Glide Plus Required

120 Cell Wheel

Seed Wheels:	Seed Density
403-133D	**4000-4600 seeds/pound**
403-134D	**4600-5200 seeds/pound**
403-135D	**5200-6000 seeds/pound**

Seed Wheels:	Seed Density
403-133D	**8800-10100 seeds/kg**
403-134D	**10100-11450 seeds/kg**
403-135D	**11450-13200 seeds/kg**

U.S. Customary Units		Planting Speed (mph)	Maximum Population (seeds/acre)	Minimum Population (seeds/acre)
Twin Row 30in		**4.0**	**261 360**	**59 400**
15in Rows		**5.0**	**209 088**	**47 520**
		5.5	**190 080**	**43 200**
Max	Min	**6.0**	**174 240**	**39 600**
rpm	rpm	**6.5**	**160 837**	**36 554**
22	**5**	**7.0**	**149 349**	**33 943**
20in Rows		**4.0**	**196 020**	**44 550**
		5.0	**156 816**	**35 640**
		5.5	**142 560**	**32 400**
Max	Min	**6.0**	**130 680**	**29 700**
rpm	rpm	**6.5**	**120 628**	**27 415**
22	**5**	**7.0**	**112 011**	**25 457**
70 cm Rows		**4.0**	**142 255**	**32 331**
(27.6 in. Rows)		**5.0**	**113 804**	**25 864**
		5.5	**103 458**	**23 513**
Max	Min	**6.0**	**94 836**	**21 554**
rpm	rpm	**6.5**	**87 541**	**19 896**
22	**5**	**7.0**	**81 288**	**18 475**
30in Rows		**4.0**	**130 680**	**29 700**
		5.0	**104 544**	**23 760**
		5.5	**95 040**	**21 600**
Max	Min	**6.0**	**87 120**	**19 800**
rpm	rpm	**6.5**	**80 418**	**18 277**
22	**5**	**7.0**	**74 674**	**16 971**

Metric Units		Planting Speed (kph)	Maximum Population (seeds/ha)	Minimum Population (seeds/ha)
Twin Row 76.2cm		**6.4**	**645 812**	**146 775**
38.1cm Rows		**8.0**	**516 649**	**117 420**
		8.9	**469 681**	**106 746**
Max	Min	**9.7**	**430 541**	**97 850**
rpm	rpm	**10.5**	**397 423**	**90 323**
22	**5**	**11.3**	**369 035**	**83 872**
50.8cm Rows		**6.4**	**484 359**	**110 082**
(20 in. Rows)		**8.0**	**387 487**	**88 065**
		8.9	**352 261**	**80 059**
Max	Min	**9.7**	**322 906**	**73 388**
rpm	rpm	**10.5**	**298 067**	**67 742**
22	**5**	**11.3**	**276 776**	**62 904**
70cm Rows		**6.4**	**351 239**	**79 827**
		8.0	**280 991**	**63 862**
		8.9	**255 447**	**58 056**
Max	Min	**9.7**	**234 159**	**53 218**
rpm	rpm	**10.5**	**216 147**	**49 124**
22	**5**	**11.3**	**200 708**	**45 615**
76.2cm Rows		**6.4**	**322 906**	**73 388**
(30 in. Rows)		**8.0**	**258 325**	**58 710**
		8.9	**234 841**	**53 373**
Max	Min	**9.7**	**215 271**	**48 925**
rpm	rpm	**10.5**	**198 711**	**45 162**
22	**5**	**11.3**	**184 518**	**41 936**

34123C

Singulator Plus™ RPM Limits — Milo — Ezee Glide Plus Required

102 Cell Wheel

Seed Wheels:	Seed Density
403-137D	**10500-18000 seeds/pound**

Seed Wheels:	Seed Density
403-137D	**23100-39700 seeds/kg**

U.S. Customary Units		Planting Speed (mph)	Maximum Population (seeds/acre)	Minimum Population (seeds/acre)
Twin Row 30in		**4.0**	**201 960**	**50 490**
15in Rows		**5.0**	**161 568**	**40 392**
		5.5	**146 880**	**36 720**
Max	Min	**6.0**	**134 640**	**33 660**
rpm	rpm	**6.5**	**124 283**	**31 071**
20	**5**	**7.0**	**115 406**	**28 851**
20in Rows		**4.0**	**151 470**	**37 868**
		5.0	**121 176**	**30 294**
		5.5	**110 160**	**27 540**
Max	Min	**6.0**	**100 980**	**25 245**
rpm	rpm	**6.5**	**93 212**	**23 303**
20	**5**	**7.0**	**86 554**	**21 639**
70 cm Rows		**4.0**	**109 924**	**27 481**
(27.6 in. Rows)		**5.0**	**87 939**	**21 985**
		5.5	**79 945**	**19 986**
Max	Min	**6.0**	**73 283**	**18 321**
rpm	rpm	**6.5**	**67 646**	**16 911**
20	**5**	**7.0**	**62 814**	**15 703**
30in Rows		**4.0**	**100 980**	**25 245**
		5.0	**80 784**	**20 196**
		5.5	**73 440**	**18 360**
Max	Min	**6.0**	**67 320**	**16 830**
rpm	rpm	**6.5**	**62 142**	**15 535**
20	**5**	**7.0**	**57 703**	**14 426**

Metric Units		Planting Speed (kph)	Maximum Population (seeds/ha)	Minimum Population (seeds/ha)
Twin Row 76.2cm		**6.4**	**499 036**	**124 759**
38.1cm Rows		**8.0**	**399 229**	**99 807**
		8.9	**362 936**	**90 734**
Max	Min	**9.7**	**332 691**	**83 173**
rpm	rpm	**10.5**	**307 099**	**76 775**
20	**5**	**11.3**	**285 164**	**71 291**
50.8cm Rows		**6.4**	**374 277**	**93 569**
(20 in. Rows)		**8.0**	**299 422**	**74 855**
		8.9	**272 202**	**68 050**
Max	Min	**9.7**	**249 518**	**62 380**
rpm	rpm	**10.5**	**230 324**	**57 581**
20	**5**	**11.3**	**213 873**	**53 468**
70cm Rows		**6.4**	**271 412**	**67 853**
		8.0	**217 130**	**54 282**
		8.9	**197 391**	**49 348**
Max	Min	**9.7**	**180 941**	**45 235**
rpm	rpm	**10.5**	**167 023**	**41 756**
20	**5**	**11.3**	**155 093**	**38 773**
76.2cm Rows		**6.4**	**249 518**	**62 380**
(30 in. Rows)		**8.0**	**199 615**	**49 904**
		8.9	**181 468**	**45 367**
Max	Min	**9.7**	**166 345**	**41 586**
rpm	rpm	**10.5**	**153 550**	**38 387**
20	**5**	**11.3**	**142 582**	**35 645**

34123D

Singulator Plus™ RPM Limits

Milo

135 Cell Wheel

Ezee Glide Plus Required

Seed Wheels:	Seed Density
403-140D	**12000-18000 seeds/pound**
403-138D	**10500-14000 seeds/pound**

Seed Wheels:	Seed Density
403-140D	**26400-39700 seeds/kg**
403-138D	**23100-30800 seeds/kg**

U.S. Customary Units		Planting Speed (mph)	Maximum Population (seeds/acre)	Minimum Population (seeds/acre)
Twin Row 30in		**4.0**	**267 300**	**66 825**
15in Rows		**5.0**	**213 840**	**53 460**
		5.5	**194 400**	**48 600**
Max	Min	**6.0**	**178 200**	**44 550**
rpm	rpm	**6.5**	**164 492**	**41 123**
20	**5**	**7.0**	**152 743**	**38 186**
20in Rows		**4.0**	**200 475**	**50 119**
		5.0	**160 380**	**40 095**
		5.5	**145 800**	**36 450**
Max	Min	**6.0**	**133 650**	**33 413**
rpm	rpm	**6.5**	**123 369**	**30 842**
20	**5**	**7.0**	**114 557**	**28 639**
70 cm Rows		**4.0**	**145 488**	**36 372**
(27.6 in. Rows)		**5.0**	**116 390**	**29 098**
		5.5	**105 809**	**26 452**
Max	Min	**6.0**	**96 992**	**24 248**
rpm	rpm	**6.5**	**89 531**	**22 383**
20	**5**	**7.0**	**83 136**	**20 784**
30in Rows		**4.0**	**133 650**	**33 413**
		5.0	**106 920**	**26 730**
		5.5	**97 200**	**24 300**
Max	Min	**6.0**	**89 100**	**22 275**
rpm	rpm	**6.5**	**82 246**	**20 562**
20	**5**	**7.0**	**76 371**	**19 093**

Metric Units		Planting Speed (kph)	Maximum Population (seeds/ha)	Minimum Population (seeds/ha)
Twin Row 76.2cm		**6.4**	**660 489**	**165 122**
38.1cm Rows		**8.0**	**528 391**	**132 098**
		8.9	**480 356**	**120 089**
Max	Min	**9.7**	**440 326**	**110 082**
rpm	rpm	**10.5**	**406 455**	**101 614**
20	**5**	**11.3**	**377 422**	**94 356**
50.8cm Rows		**6.4**	**495 367**	**123 842**
(20 in. Rows)		**8.0**	**396 294**	**99 073**
		8.9	**360 267**	**90 067**
Max	Min	**9.7**	**330 245**	**82 561**
rpm	rpm	**10.5**	**304 841**	**76 210**
20	**5**	**11.3**	**283 067**	**70 767**
70cm Rows		**6.4**	**359 222**	**89 805**
		8.0	**287 377**	**71 844**
		8.9	**261 252**	**65 313**
Max	Min	**9.7**	**239 481**	**59 870**
rpm	rpm	**10.5**	**221 060**	**55 265**
20	**5**	**11.3**	**205 270**	**51 317**
76.2cm Rows		**6.4**	**330 245**	**82 561**
(30 in. Rows)		**8.0**	**264 196**	**66 049**
		8.9	**240 178**	**60 044**
Max	Min	**9.7**	**220 163**	**55 041**
rpm	rpm	**10.5**	**203 227**	**50 807**
20	**5**	**11.3**	**188 711**	**47 178**

34123E

Singulator Plus™ RPM Limits — Milo — Ezee Glide Plus Required

270 Cell Wheel

Seed Wheels:	Seed Density
403-141D	**12000-18000 seeds/pound**
403-139D	**10500-14000 seeds/pound**

Seed Wheels:	Seed Density
403-141D	**26400-39700 seeds/kg**
403-139D	**23100-30800 seeds/kg**

U.S. Customary Units		Planting Speed (mph)	Maximum Population (seeds/acre)	Minimum Population (seeds/acre)
Twin Row 30in		**4.0**	**534 600**	**133 650**
15in Rows		**5.0**	**427 680**	**106 920**
		5.5	**388 800**	**97 200**
Max	Min	**6.0**	**356 400**	**89 100**
rpm	rpm	**6.5**	**328 985**	**82 246**
20	**5**	**7.0**	**305 486**	**76 371**
20in Rows		**4.0**	**400 950**	**100 238**
		5.0	**320 760**	**80 190**
		5.5	**291 600**	**72 900**
Max	Min	**6.0**	**267 300**	**66 825**
rpm	rpm	**6.5**	**246 738**	**61 685**
20	**5**	**7.0**	**229 114**	**57 279**
70 cm Rows		**4.0**	**290 975**	**72 744**
(27.6 in. Rows)		**5.0**	**232 780**	**58 195**
		5.5	**211 618**	**52 905**
Max	Min	**6.0**	**193 983**	**48 496**
rpm	rpm	**6.5**	**179 062**	**44 765**
20	**5**	**7.0**	**166 272**	**41 568**
30in Rows		**4.0**	**267 300**	**66 825**
		5.0	**213 840**	**53 460**
		5.5	**194 400**	**48 600**
Max	Min	**6.0**	**178 200**	**44 550**
rpm	rpm	**6.5**	**164 492**	**41 123**
20	**5**	**7.0**	**152 743**	**38 186**

Metric Units		Planting Speed (kph)	Maximum Population (seeds/ha)	Minimum Population (seeds/ha)
Twin Row 76.2cm		**6.4**	**1320 979**	**330 245**
38.1cm Rows		**8.0**	**1056 783**	**264 196**
		8.9	**960 712**	**240 178**
Max	Min	**9.7**	**880 652**	**220 163**
rpm	rpm	**10.5**	**812 910**	**203 227**
20	**5**	**11.3**	**754 845**	**188 711**
50.8cm Rows		**6.4**	**990 734**	**247 683**
(20 in. Rows)		**8.0**	**792 587**	**198 147**
		8.9	**720 534**	**180 133**
Max	Min	**9.7**	**660 489**	**165 122**
rpm	rpm	**10.5**	**609 682**	**152 421**
20	**5**	**11.3**	**566 134**	**141 533**
70cm Rows		**6.4**	**718 444**	**179 611**
		8.0	**574 755**	**143 689**
		8.9	**522 505**	**130 626**
Max	Min	**9.7**	**478 962**	**119 741**
rpm	rpm	**10.5**	**442 119**	**110 530**
20	**5**	**11.3**	**410 539**	**102 635**
76.2cm Rows		**6.4**	**660 489**	**165 122**
(30 in. Rows)		**8.0**	**528 391**	**132 098**
		8.9	**480 356**	**120 089**
Max	Min	**9.7**	**440 326**	**110 082**
rpm	rpm	**10.5**	**406 455**	**101 614**
20	**5**	**11.3**	**377 422**	**94 356**

34123F

Singulator Plus™ RPM Limits — Soybean — Ezee Glide Plus Required

100 Cell Wheel

Seed Wheels: Seed Density

403-122D 1700-2200 seeds/pound

Seed Wheels: Seed Density

403-122D 3750-4850 seeds/kg

U.S. Customary Units		Planting Speed (mph)	Maximum Population (seeds/acre)	Minimum Population (seeds/acre)
Twin Row 30in		**4.0**	**326 700**	**49 500**
15in Rows		**5.0**	**261 360**	**39 600**
		5.5	**237 600**	**36 000**
Max	Min	**6.0**	**217 800**	**33 000**
rpm	rpm	**6.5**	**201 046**	**30 462**
33	**5**	**7.0**	**186 686**	**28 286**
20in Rows		**4.0**	**245 025**	**37 125**
		5.0	**196 020**	**29 700**
		5.5	**178 200**	**27 000**
Max	Min	**6.0**	**163 350**	**24 750**
rpm	rpm	**6.5**	**150 785**	**22 846**
33	**5**	**7.0**	**140 014**	**21 214**
70 cm Rows		**4.0**	**177 818**	**26 942**
(27.6 in. Rows)		**5.0**	**142 255**	**21 554**
		5.5	**129 322**	**19 594**
Max	Min	**6.0**	**118 545**	**17 961**
rpm	rpm	**6.5**	**109 427**	**16 580**
33	**5**	**7.0**	**101 610**	**15 396**
30in Rows		**4.0**	**163 350**	**24 750**
		5.0	**130 680**	**19 800**
		5.5	**118 800**	**18 000**
Max	Min	**6.0**	**108 900**	**16 500**
rpm	rpm	**6.5**	**100 523**	**15 231**
33	**5**	**7.0**	**93 343**	**14 143**

Metric Units		Planting Speed (kph)	Maximum Population (seeds/ha)	Minimum Population (seeds/ha)
Twin Row 76.2cm		**6.4**	**807 265**	**122 313**
38.1cm Rows		**8.0**	**645 812**	**97 850**
		8.9	**587 102**	**88 955**
Max	Min	**9.7**	**538 176**	**81 542**
rpm	rpm	**10.5**	**496 778**	**75 269**
33	**5**	**11.3**	**461 294**	**69 893**
50.8cm Rows		**6.4**	**605 448**	**91 735**
(20 in. Rows)		**8.0**	**484 359**	**73 388**
		8.9	**440 326**	**66 716**
Max	Min	**9.7**	**403 632**	**61 156**
rpm	rpm	**10.5**	**372 584**	**56 452**
33	**5**	**11.3**	**345 971**	**52 420**
70cm Rows		**6.4**	**439 049**	**66 523**
		8.0	**351 239**	**53 218**
		8.9	**319 308**	**48 380**
Max	Min	**9.7**	**292 699**	**44 348**
rpm	rpm	**10.5**	**270 184**	**40 937**
33	**5**	**11.3**	**250 885**	**38 013**
76.2cm Rows		**6.4**	**403 632**	**61 156**
(30 in. Rows)		**8.0**	**322 906**	**48 925**
		8.9	**293 551**	**44 477**
Max	Min	**9.7**	**269 088**	**40 771**
rpm	rpm	**10.5**	**248 389**	**37 635**
33	**5**	**11.3**	**230 647**	**34 947**

34123G

Singulator Plus™ RPM Limits — Soybean — Ezee Glide Plus Required

110 Cell Wheel

Seed Wheels:	Seed Density
403-123D	2200-2700 seeds/pound
403-124D	2700-3200 seeds/pound
403-125D	3100-3800 seeds/pound
403-126D	3600-4000 seeds/pound

Seed Wheels:	Seed Density
403-123D	4850-5950 seeds/kg
403-124D	5950-7050 seeds/kg
403-125D	6800-8400 seeds/kg
403-126D	7950-8800 seeds/kg

U.S. Customary Units		Planting Speed (mph)	Maximum Population (seeds/acre)	Minimum Population (seeds/acre)
Twin Row 30in		**4.0**	**402 930**	**54 450**
15in Rows		**5.0**	**322 344**	**43 560**
		5.5	**293 040**	**39 600**
Max	Min	**6.0**	**268 620**	**36 300**
rpm	rpm	**6.5**	**247 957**	**33 508**
37	**5**	**7.0**	**230 246**	**31 114**
20in Rows		**4.0**	**302 198**	**40 838**
		5.0	**241 758**	**32 670**
		5.5	**219 780**	**29 700**
Max	Min	**6.0**	**201 465**	**27 225**
rpm	rpm	**6.5**	**185 968**	**25 131**
37	**5**	**7.0**	**172 684**	**23 336**
70 cm Rows		**4.0**	**219 309**	**29 636**
(27.6 in. Rows)		**5.0**	**175 447**	**23 709**
		5.5	**159 497**	**21 554**
Max	Min	**6.0**	**146 206**	**19 758**
rpm	rpm	**6.5**	**134 959**	**18 238**
37	**5**	**7.0**	**125 319**	**16 935**
30in Rows		**4.0**	**201 465**	**27 225**
		5.0	**161 172**	**21 780**
		5.5	**146 520**	**19 800**
Max	Min	**6.0**	**134 310**	**18 150**
rpm	rpm	**6.5**	**123 978**	**16 754**
37	**5**	**7.0**	**115 123**	**15 557**

Metric Units		Planting Speed (kph)	Maximum Population (seeds/ha)	Minimum Population (seeds/ha)
Twin Row 76.2cm		**6.4**	**995 626**	**134 544**
38.1cm Rows		**8.0**	**796 501**	**107 635**
		8.9	**724 092**	**97 850**
Max	Min	**9.7**	**663 751**	**89 696**
rpm	rpm	**10.5**	**612 693**	**82 796**
37	**5**	**11.3**	**568 929**	**76 882**
50.8cm Rows		**6.4**	**746 720**	**100 908**
(20in Rows)		**8.0**	**597 376**	**80 726**
		8.9	**543 069**	**73 388**
Max	Min	**9.7**	**497 813**	**67 272**
rpm	rpm	**10.5**	**459 520**	**62 097**
37	**5**	**11.3**	**426 697**	**57 662**
70cm Rows		**6.4**	**541 494**	**73 175**
		8.0	**433 195**	**58 540**
		8.9	**393 814**	**53 218**
Max	Min	**9.7**	**360 996**	**48 783**
rpm	rpm	**10.5**	**333 227**	**45 031**
37	**5**	**11.3**	**309 425**	**41 814**
76.2cm Rows		**6.4**	**497 813**	**67 272**
(30in Rows)		**8.0**	**398 251**	**53 818**
		8.9	**362 046**	**48 925**
Max	Min	**9.7**	**331 875**	**44 848**
rpm	rpm	**10.5**	**306 347**	**41 398**
37	**5**	**11.3**	**284 465**	**38 441**

34123H

Finger Meter Planting

The basic seed rate for finger meters is determined by the meter finger count (6 or 12), and the hydraulic drive setup.

Finger meters have two additional adjustments for optimum results:

1. Meter brush (see page 18)
2. Twin row indexing (see page 20)

NOTICE

Recommended speed is 4 1/2 to 5 miles per hour (7.2 to 8 kph).

Excess speeds are known to deteriorate seed spacing control and depth control.

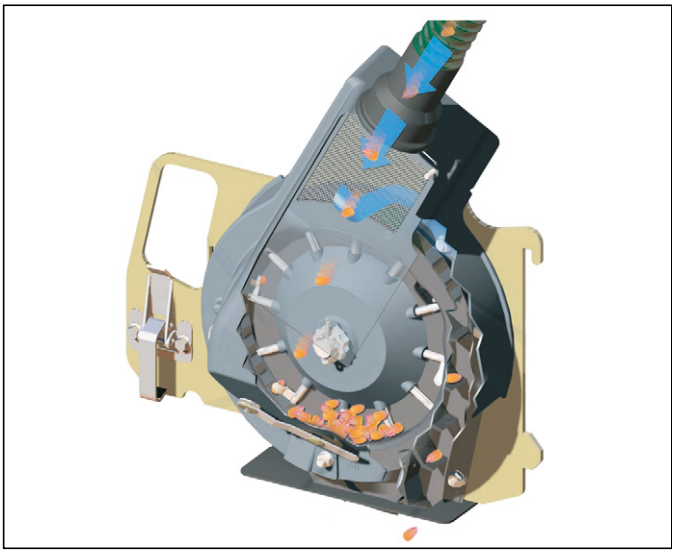
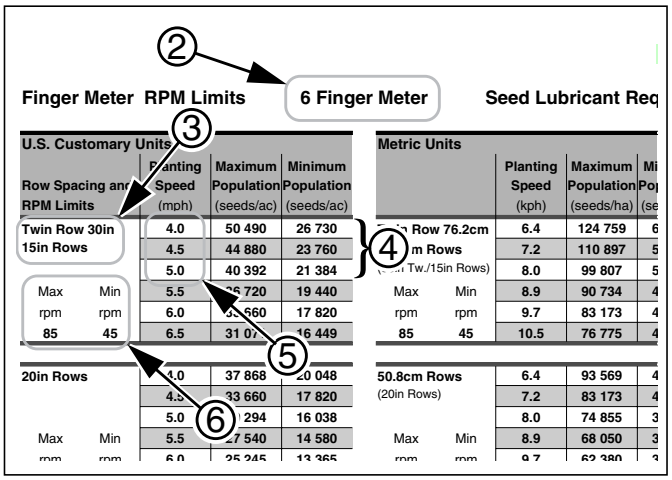


Figure 6 29343
Finger Pickup Meter

Reading a Finger Meter Rate Chart

1. Know your intended seed population (see charts on page 6 and page 7 if only seed spacing is known).
2. Consult page 16 or page 17 for your meter type.
3. Find the chart for your row spacing, for example, 30 inch twin row.
4. Note which Maximum and Minimum rows cover your intended population. For example, three rows apply to 40,000 seeds/ac.
5. Choose a field speed that is covered by the Min/Max population bands.
6. The listed meter rpm limits are for reference. If you use a compatible field speed from the chart, meter rpm is assured to be within limits.
7. Enter the population in the seed monitor.



Finger Meter RPM Limits 6 Finger Meter Seed Lubricant Required

U.S. Customary Units				
Row Spacing and RPM Limits		Planting Speed (mph)	Maximum Population (seeds/ac)	Minimum Population (seeds/ac)
Twin Row 30in 15in Rows		4.0	50 490	26 730
		4.5	44 880	23 760
		5.0	40 392	21 384
Max rpm	Min rpm	5.5	36 720	19 440
		6.0	33 660	17 820
85	45	6.5	31 071	16 449
20in Rows		4.0	37 868	20 048
		4.5	33 660	17 820
		5.0	30 294	16 038
Max rpm	Min rpm	5.5	27 540	14 580
		6.0	25 245	13 365
85	45	6.5	23 303	12 337

Metric Units				
		Planting Speed (kph)	Maximum Population (seeds/ha)	Minimum Population (seeds/ha)
Twin Row 76.2cm 38.1cm Rows (30in Tw./15in Rows)		6.4	124 759	66 049
		7.2	110 897	58 710
		8.0	99 807	52 839
Max rpm	Min rpm	8.9	90 734	48 036
		9.7	83 173	44 033
85	45	10.5	76 775	40 645
50.8cm Rows (20in Rows)		6.4	93 569	49 537
		7.2	83 173	44 033
		8.0	74 855	39 629
Max rpm	Min rpm	8.9	68 050	36 027
		9.7	62 380	33 024
85	45	10.5	57 581	30 484

U.S. Customary Units				
		Planting Speed (mph)	Maximum Population (seeds/ac)	Minimum Population (seeds/ac)
70cm Rows (27.6in Rows)		4.0	27 481	14 549
		4.5	24 428	12 932
		5.0	21 985	11 639
Max rpm	Min rpm	5.5	19 986	10 581
		6.0	18 321	09 699
85	45	6.5	16 911	08 953
30in Rows		4.0	25 245	13 365
		4.5	22 440	11 880
		5.0	20 196	10 692
Max rpm	Min rpm	5.5	18 360	9 720
		6.0	16 830	8 910
85	45	6.5	15 535	8 225

Metric Units				
		Planting Speed (kph)	Maximum Population (seeds/ha)	Minimum Population (seeds/ha)
70cm Rows (27.6in Rows)		6.4	67 853	35 922
		7.2	60 314	31 931
		8.0	54 282	28 738
Max rpm	Min rpm	8.9	49 348	26 125
		9.7	45 235	23 948
85	45	10.5	41 756	22 106
76.2cm Rows (30in Rows)		6.4	62 380	33 024
		7.2	55 448	29 355
		8.0	49 904	26 420
Max rpm	Min rpm	8.9	45 367	24 018
		9.7	41 586	22 016
85	45	10.5	38 387	20 323

34123A

Finger Meter RPM Limits — 12 Finger Meter — Seed Lubricant Required

U.S. Customary Units				
Row Spacing and RPM Limits		**Planting Speed** (mph)	**Maximum Population** (seeds/ac)	**Minimum Population** (seeds/ac)
Twin Row 30in 15in Rows		**4.0**	**89 100**	**53 460**
		4.5	**79 200**	**47 520**
		5.0	**71 280**	**42 768**
Max rpm	Min rpm	**5.5**	**64 800**	**38 880**
		6.0	**59 400**	**35 640**
75	**45**	**6.5**	**54 831**	**32 898**
20in Rows		**4.0**	**66 825**	**40 095**
		4.5	**59 400**	**35 640**
		5.0	**53 460**	**32 076**
Max rpm	Min rpm	**5.5**	**48 600**	**29 160**
		6.0	**44 550**	**26 730**
75	**45**	**6.5**	**41 123**	**24 674**

Metric Units				
		Planting Speed (kph)	**Maximum Population** (seeds/ha)	**Minimum Population** (seeds/ha)
Twin Row 76.2cm 38.1cm Rows (30in Tw./15in Rows)		**6.4**	**220 163**	**132 098**
		7.2	**195 701**	**117 420**
		8.0	**176 130**	**105 678**
Max rpm	Min rpm	**8.9**	**160 119**	**96 071**
		9.7	**146 775**	**88 065**
75	**45**	**10.5**	**135 485**	**81 291**
50.8cm Rows (20in Rows)		**6.4**	**165 122**	**99 073**
		7.2	**146 775**	**88 065**
		8.0	**132 098**	**79 259**
Max rpm	Min rpm	**8.9**	**120 089**	**72 053**
		9.7	**110 082**	**66 049**
75	**45**	**10.5**	**101 614**	**60 968**

U.S. Customary Units				
		Planting Speed (mph)	**Maximum Population** (seeds/ac)	**Minimum Population** (seeds/ac)
70cm Rows (27.6in Rows)		**4.0**	**48 496**	**29 098**
		4.5	**43 107**	**25 864**
		5.0	**38 797**	**23 278**
Max rpm	Min rpm	**5.5**	**35 270**	**21 162**
		6.0	**32 331**	**19 398**
75	**45**	**6.5**	**29 844**	**17 906**
30in Rows		**4.0**	**44 550**	**26 730**
		4.5	**39 600**	**23 760**
		5.0	**35 640**	**21 384**
Max rpm	Min rpm	**5.5**	**32 400**	**19 440**
		6.0	**29 700**	**17 820**
75	**45**	**6.5**	**27 415**	**16 449**

Metric Units				
		Planting Speed (kph)	**Maximum Population** (seeds/ha)	**Minimum Population** (seeds/ha)
70cm Rows (27.6in Rows)		**6.4**	**119 741**	**71 844**
		7.2	**106 436**	**63 862**
		8.0	**95 792**	**57 475**
Max rpm	Min rpm	**8.9**	**87 084**	**52 250**
		9.7	**79 827**	**47 896**
75	**45**	**10.5**	**73 687**	**44 212**
76.2cm Rows (30in Rows)		**6.4**	**110 082**	**66 049**
		7.2	**97 850**	**58 710**
		8.0	**88 065**	**52 839**
Max rpm	Min rpm	**8.9**	**80 059**	**48 036**
		9.7	**73 388**	**44 033**
75	**45**	**10.5**	**67 742**	**40 645**

34123B

Finger Meter Adjustments

The finger pick up meter has an adjustable brush. The brush has been pre-set to the optimum setting for most seed sizes.

Finger Meter Brush Adjustment

The brush reduces or eliminates “doubles” (delivering two seeds per finger), but if set too aggressively can cause “skips” (delivering no seed on some fingers). As needed, adjust for minimal doubles and skips.

Note: These instructions describe the current finger pickup meter shipped with new Great Plains planters, which has an integrated adjustment lever for the brush. If you have pre-existing finger meters, there is some chance that you may have previous model meters, adjusted by screwdriver rather than lever. If so, rely on counting detents to determine the setting. Not all have 9 detents.

Refer to Figure 7

The adjustable brush provides additional flexibility to accommodate a wide range of seed sizes. Use lever Ⓛ to gently rotate the brush into position.

Settings range from 1 to 5, with detents at each half step, for a total of 9 detents. The factory default setting is $2\frac{1}{2}$. Although the numbers are molded into the meter housing, only “1” and “5” may be visible. To ensure consistency, rotate lever Ⓛ fully counter-clockwise (1), and count detents as you advance it to the desired setting.

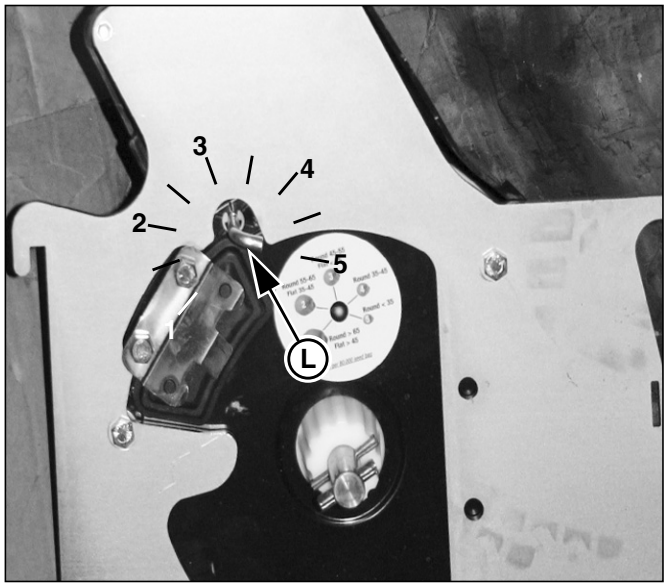


Figure 7 25276
Finger Meter Brush Lever

Use the general guidelines in the table below to adjust the brush position to your seed size and shape. The numbers listed correspond to the numbers printed on the outer housing of your meter.

If there is a decal on your meter, its units are in pounds per 80,000 seed bag. The table below includes seeds per pound.

Bag Weight (80,000 seeds)	Seeds Per Pound	Brush Setting	Seeds Per Kilogram	Bag Weight (80,000 seeds)
		Rounds		
65 lbs	1230 or less	1	2710 or less	29.5 kg
65 to 55 lbs	1230 to 1450	2	2710 to 3195	29.5 to 24.9 kg
55 to 45 lbs	1450 to 1780	3	3195 to 3925	24.9 to 20.4 kg
45 to 35 lbs	1780 to 2300	4	3925 to 5070	20.4 to 15.9 kg
35 lbs	2300 or more	5	5070 or more	15.9 kg
		Flats		
45 lbs	1780 or less	1	3925 or less	20.4 kg
45 to 35 lbs	1780 to 2300	2	3925 to 5070	20.4 to 15.9 kg
35 lbs	2300 or more	3	5070 or more	15.9 kg

29633

Finger Meter Inserts

Refer to Figure 8

The backing plate is equipped with an “A” insert ①. In tests, this insert provides the best performance in most seed sizes. However, there are two alternative inserts that can be used. Before changing to a different insert, please consult with a Great Plains service representative for a recommendation.

The identification of the insert type is molded into the back of the insert.

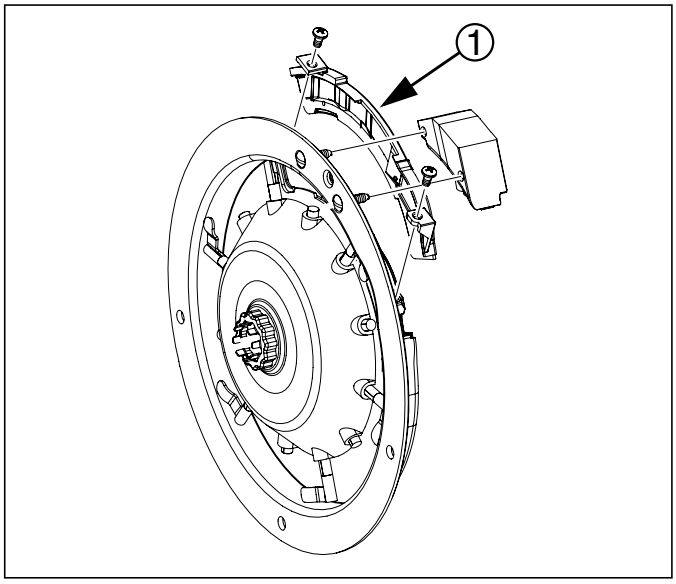


Figure 8 22908
Finger Meter Insert

NOTICE

Machine Damage Risks:
Be cautious in using seed treatments, additives, and other chemicals when possible. They can cause meter performance problems and premature wear to meter parts.

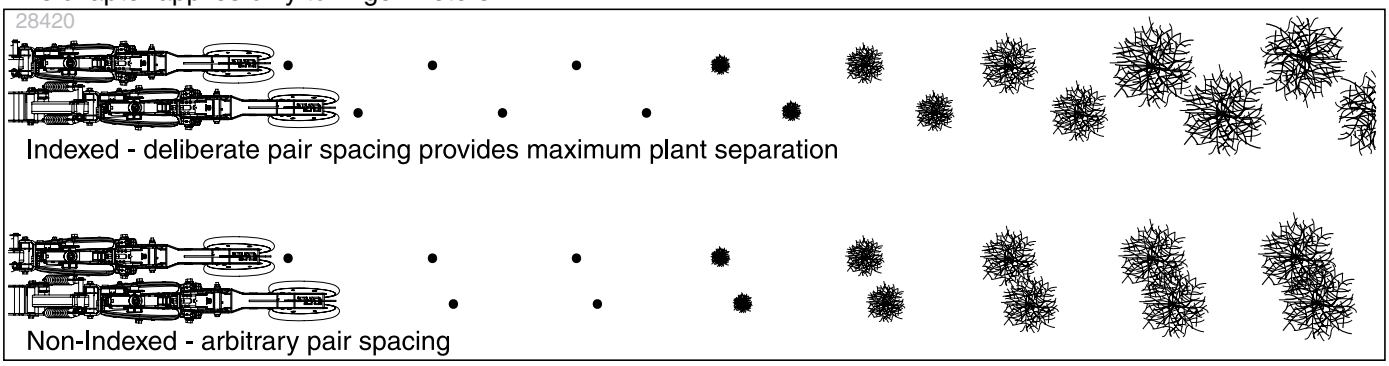
Avoid the use of graphite with untreated seeds. If graphite must be used, use Precision™ planting graphite or Great Plains graphite which is less abrasive. Seeds with Maxi, Captan, Cruiser, Poncho and similar treatments can benefit from graphite. Use the amount recommended on the graphite container, usually 1 tsp (5 ml) per unit or 1 tsp per 80,000 seeds.

Always store meters in a dry, secure place, with brush in between two meter fingers. Moisture, temperature, nest-building insects and rodents can create problems.

Always pay attention to your seed monitor and operating manual. Monitor the amount of seed you are planting compared to your expectations. Always investigate abnormalities!

Sprocket Indexing (Stagger)

This chapter applies only to finger meters.



If you are planting:
• finger-metered,
• twin-row crops,
• at seed interval spacings above 6½ inches (16.5 cm),
you can synchronize each pair of adjacent meters in a twin row so that you achieve the maximum seed-to-seed spacing between the units of the pair.

If you are planting:
- single-row,
- or with singulating meters,
- or a volumetric crop,
- or twin row with seed spacings below 6½ in. (16.5 cm),
this section of the manual, and the sprocket indexing charts, do *not* apply to your operations.

If the initial indexing does not provide equal spacing, see "**Indexing Fine Adjustment**" on page 23.

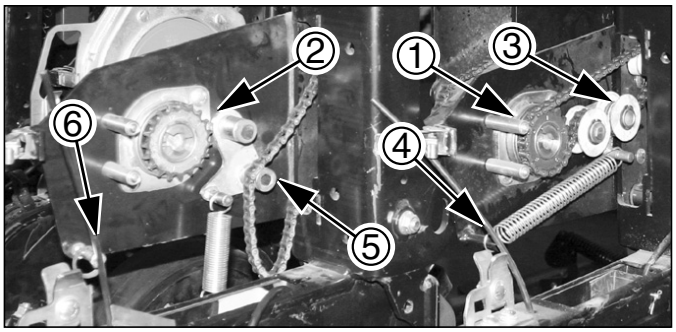


Figure 9
Sprocket Indexing

Refer to Figure 9

1. Find the chart for your row spacing, meter finger count and desired seed population. Note the "**Rear Meter Sprocket Tooth #**" value in the far right column.
2. Remove both meters of a row unit pair. Note that tooth 1 and many of the other teeth on the driven sprockets ①,② are stamped with a tooth number.

On front row unit:

3. Relax idlers ③ on front meter drive by lifting the spring off the rear post ④.
4. Lift chain off driven sprocket ①, and rotate sprocket so that tooth 1 is as close as possible to straight up (TDC: top dead center).
5. Re-engage chain and idlers, making sure chain is taut at top, and that sprocket tooth 1 has not shifted off TDC.

On rear row unit:

6. Relax idlers ⑤ on rear meter drive by lifting the spring off the rear post ⑥.
7. Lift chain off driven sprocket ②, and rotate sprocket so that the tooth number called for in the chart is at TDC (or is the same as the front row sprocket).
8. Re-engage chain and idlers, making sure chain is taut at top, and that the designated sprocket tooth has not shifted off TDC.
9. Re-install meters. No particular wheel orientation is required during meter installation. The meter engagement is symmetrical, and the results identical no matter how the coupler captures the meter shaft.

Sprocket Indexing Charts

1. For: your 6- or 12-finger meter, and your twin row spacing find your seed rate in the Population column, or your seed spacing in the Seed Spacing column. Seed spacing is seed-to-seed within a single row of a twin row pair.
2. At the front/forward row unit of a pair, set the driven (final) sprocket of the meter drive so that tooth stamped #1 is straight up (TDC, 12:00 position).
3. At the rear/trailing row unit of the pair, set the driven sprocket so that the tooth number at “Rear Meter” is in the straight up 12:00 position.

NOTICE

Not Rate or Spacing Charts:
These are NOT seed rate or seed spacing charts. These are for staggering seed spacing between the rows of a twin row.

Note: For adjusting spacing between rows of the pair, see “**Indexing Fine Adjustment**” on page 23.

NOTICE

Setting Error Risk:
Verify the 12:00 sprocket tooth position with the top length of chain taut.

These charts are in U.S. customary units. See page 22 for metric charts (76.2 cm twin row).

6 Finger Meter Twin Row Sprocket Indexing

30in (76.2cm) Twin Row		Set Sprocket to Tooth Number on ..	
Population Seeds per Acre	Single Row Seed Spacing (in)	Front Meter	Rear Meter
15,700 to 17,300	24.2 to 26.6	1	4
17,300 to 18,800	22.2 to 24.2	1	7
18,800 to 20,400	20.5 to 22.2	1	10
20,400 to 22,000	19.0 to 20.5	1	13
22,000 to 23,600	17.7 to 19.0	1	16
23,600 to 25,000	16.7 to 17.7	1	19
25,000 to 26,600	15.7 to 16.7	1	3
26,600 to 28,300	14.8 to 15.7	1	6
28,300 to 29,900	14.0 to 14.8	1	9
29,900 to 31,500	13.3 to 14.0	1	12
31,500 to 33,000	12.7 to 13.3	1	15
33,000 to 34,700	12.1 to 12.7	1	18
34,700 to 36,200	11.6 to 12.1	1	2
36,200 to 37,800	11.1 to 11.6	1	5
37,800 to 39,300	10.6 to 11.1	1	8
39,300 to 40,800	10.3 to 10.6	1	11
40,800 to 42,500	9.8 to 10.3	1	14
42,500 to 44,000	9.5 to 9.8	1	17
44,000 to 45,400	9.2 to 9.5	1	1
45,400 to 47,000	8.9 to 9.2	1	4
47,000 to 48,600	8.6 to 8.9	1	7
48,600 to 50,400	8.3 to 8.6	1	10
50,400 to 51,800	8.1 to 8.3	1	13
51,800 to 53,300	7.8 to 8.1	1	16

31456B

12 Finger Meter Twin Row Sprocket Indexing

30in (76.2cm) Twin Row		Set Sprocket to Tooth Number on ..	
Population Seeds per Acre	Single Row Seed Spacing (in)	Front Meter	Rear Meter
26,600 to 28,300	14.8 to 15.7	1	13
28,300 to 29,900	14.0 to 14.8	1	5
29,900 to 31,500	13.3 to 14.0	1	16
31,500 to 33,000	12.7 to 13.3	1	8
33,000 to 34,700	12.1 to 12.7	1	19
34,700 to 36,200	11.6 to 12.1	1	11
36,200 to 37,800	11.1 to 11.6	1	3
37,800 to 39,300	10.6 to 11.1	1	14
39,300 to 40,800	10.3 to 10.6	1	6
40,800 to 42,500	9.8 to 10.3	1	17
42,500 to 44,000	9.5 to 9.8	1	9
44,000 to 45,400	9.2 to 9.5	1	1
45,400 to 47,000	8.9 to 9.2	1	12
47,000 to 48,600	8.6 to 8.9	1	4
48,600 to 50,400	8.3 to 8.6	1	15
50,400 to 51,800	8.1 to 8.3	1	7
51,800 to 53,300	7.9 to 8.1	1	18
53,300 to 55,000	7.6 to 7.9	1	10
55,000 to 56,600	7.4 to 7.6	1	2
56,600 to 58,200	7.2 to 7.4	1	13
58,200 to 59,700	7.0 to 7.2	1	5
59,700 to 61,300	6.8 to 7.0	1	16
61,300 to 62,900	6.7 to 6.8	1	8
62,900 to 64,400	6.5 to 6.7	1	19

31457B

These charts are in metric units. See page 21 for U.S. customary units (30 inch twin row).

6 Finger Meter Twin Row Sprocket Indexing

76.2 cm (30 in.) Twin Row		Set Sprocket to Tooth Number on ..	
Population Seeds per Hectare	Single Row Seed Spacing (cm)	Front Meter	Rear Meter
38 795 to 42 749	61.4 to 67.6	1	4
42 749 to 46 456	56.5 to 61.4	1	7
46 456 to 50 409	52.0 to 56.5	1	10
50 409 to 54 363	48.3 to 52.0	1	13
54 363 to 58 317	45.0 to 48.3	1	16
58 317 to 61 776	42.4 to 45.0	1	19
61 776 to 65 730	39.9 to 42.4	1	3
65 730 to 69 931	37.5 to 39.9	1	6
69 931 to 73 884	35.5 to 37.5	1	9
73 884 to 77 838	33.7 to 35.5	1	12
77 838 to 81 544	32.2 to 33.7	1	15
81 544 to 85 745	30.6 to 32.2	1	18
85 745 to 89 452	29.3 to 30.6	1	2
89 452 to 93 405	28.1 to 29.3	1	5
93 405 to 97 112	27.0 to 28.1	1	8
97 112 to 100 819	26.0 to 27.0	1	11
100 819 to 105 019	25.0 to 26.0	1	14
105 019 to 108 726	24.1 to 25.0	1	17
108 726 to 112 185	23.4 to 24.1	1	1
112 185 to 116 139	22.6 to 23.4	1	4
116 139 to 120 093	21.8 to 22.6	1	7
120 093 to 124 541	21.1 to 21.8	1	10
124 541 to 128 000	20.5 to 21.1	1	13
128 000 to 131 707	19.9 to 20.5	1	16

31456F

12 Finger Meter Twin Row Sprocket Indexing

76.2 cm (30 in.) Twin Row		Set Sprocket to Tooth Number on ..	
Population Seeds per Hectare	Single Row Seed Spacing (cm)	Front Meter	Rear Meter
65 800 to 69 900	37.5 to 39.9	1	13
69 900 to 73 900	35.5 to 37.5	1	5
73 900 to 77 800	33.7 to 35.5	1	16
77 800 to 81 600	32.2 to 33.7	1	8
81 600 to 85 800	30.6 to 32.2	1	19
85 800 to 89 500	29.3 to 30.6	1	11
89 500 to 93 400	28.1 to 29.3	1	3
93 400 to 97 100	27.0 to 28.1	1	14
97 100 to 100 800	26.0 to 27.0	1	6
100 800 to 105 000	25.0 to 26.0	1	17
105 000 to 108 800	24.1 to 25.0	1	9
108 800 to 112 200	23.4 to 24.1	1	1
112 200 to 116 100	22.6 to 23.4	1	12
116 100 to 120 200	21.8 to 22.6	1	4
120 200 to 124 500	21.1 to 21.8	1	15
124 500 to 128 000	20.5 to 21.1	1	7
128 000 to 131 600	19.9 to 20.5	1	18
131 600 to 136 000	19.3 to 19.9	1	10
136 000 to 139 800	18.8 to 19.3	1	2
139 800 to 143 700	18.3 to 18.8	1	13
143 700 to 147 600	17.8 to 18.3	1	5
147 600 to 151 500	17.3 to 17.8	1	16
151 500 to 155 400	16.9 to 17.3	1	8
155 400 to 159 200	16.5 to 16.9	1	19

31457F

Indexing Fine Adjustment

If, after indexing, twin-row side-to-side seed stagger is substantially imbalanced, it is possible to make small adjustments that may correct it.

The procedure is different for 6- and 12-finger meters.

If an adjustment is made, test it on one row pair before adjusting the entire planter.

6-Finger Meter Stagger Adjustment

Find your current indexing value row in the charts on page 21 or page 22.

Each (sprocket tooth) number directly above or below the current rear meter sprocket setting in the right most column of the seed indexing chart represents a small movement of the rear row seed relative to the front row seed.

For 6-finger meters, changing the rear sprocket to the next tooth number up in the chart *retards*, moving each rear row seed back a small amount.

Changing rear sprocket to the next number down in the chart *advances*, moving each rear row seed ahead a small amount.

Example 1: The 6 Finger (Twin Row 30 inch) planting population is 29,900 or 14 inch seed spacing. The chart setting for the rear sprocket is T#9 or T#12. Assume tooth 9 was used. Each rear row seed should fall 7 inches behind the front row seed.

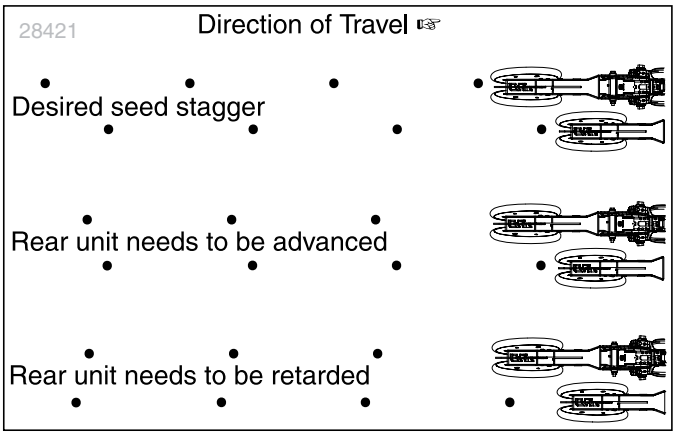
If each rear row seed measures only 6 inches behind the front row seed, reset the rear meter sprocket to the next number up in the chart (T#6). This moves the rear seeds backward to make the stagger closer to 7 inches.

Example 2: The 6 Finger (Twin Row 30 inch) planting population is 29,900 or 14 inch seed spacing. The chart setting used for the rear sprocket is (T#9). Each rear row seed should fall 7 inches behind front row seed.

If each rear row seed measures 8 inches behind the front row seed, reset the rear meter sprocket to the next number down in the chart (T#12). This will move the rear seeds ahead to make the stagger closer to 7 inches.

Before making any Indexing Adjustments:

- Check actual planted seed spacing. Seed Spacing is found by measuring the distance between 25 correctly planted seeds in one row and dividing by 24. (A visible skip or double is counted as one seed.)
- Make sure current rear sprocket index number matches the number in the indexing chart for actual seed spacing being planted.



30in (76.2cm) Twin Row		Set Sprocket to Tooth Number on ..	
Population Seeds per Acre	Single Row Seed Spacing (in)	Front Meter	Rear Meter
15,700 to 17,300	24.2 to 26.6	1	4
17,300 to 18,800	22.2 to 24.2	1	7
18,800 to 20,400	20.5 to 22.2	1	10
20,400 to 22,000	19.0 to 20.5	1	13
22,000 to 23,600	17.7 to 19.0	1	16
23,600 to 25,000	16.7 to 17.7	1	19
25,000 to 26,600	15.7 to 16.7	1	3
26,600 to 28,300	14.8 to 15.7	Retard ☞	6
28,300 to 29,900	14.0 to 14.8	Current ☞	9
29,900 to 31,500	13.3 to 14.0	Advance ☞	12
31,500 to 33,000	12.7 to 13.3	1	15
33,000 to 34,700	12.1 to 12.7	1	18

Figure 10: Portion of 6-Finger Sprocket Indexing Chart 31456B

12-Finger Meter Stagger Adjustment

Before making any Indexing Adjustments, check actual planted seed spacing. Seed Spacing is found by measuring the distance between 25 correctly planted seeds in one row and dividing by 24. (A visible skip or double should be counted as one seed.) Make sure current rear sprocket index number matches the number in the indexing chart for actual seed spacing being planted.

Find your current indexing value row in the charts on page 21 or page 22.

Each (sprocket tooth) number directly above or below the current rear meter sprocket setting in the right most column of the seed indexing chart represents a small movement of the rear row seed relative to the front row seed.

For 12-finger meters, changing the rear sprocket to the next tooth number *down* in the chart *retards*, moving each rear row seed back a small amount.

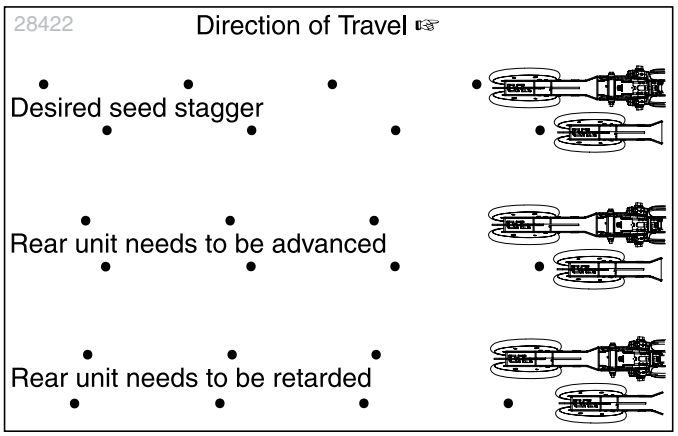
Changing the rear sprocket to the next tooth number *up* in the chart *advances*, moving each rear row seed ahead a small amount.

Example 1: The 12 Finger (Twin Row 30 inch) planting population is 37,400 or 12.1 inch seed spacing. The chart setting for the rear sprocket is either T#19 or T#11. Assume T#11 is used. Each rear row seed should fall 6 inches behind the front row seed.

If each rear row seed measures 7 inches behind the front row seed, reset the rear meter sprocket to the next number up in the chart (T#19). This moves the rear seeds ahead and makes the stagger closer to 6 inches.

Example 2: The 12 Finger (Twin Row 30 inch) planting population is 37,400 or 12.1 inch seed spacing. The chart setting for the rear sprocket is either T#19 or T#11. Assume T#11 is used. Each rear row seed should fall 6 inches behind the front row seed.

If each rear row seed measures 5 inches behind the front row seed, reset the rear meter sprocket to the next number down in the chart (T#3). This will move the rear seeds back to make the stagger closer to 6 inches.



30in (76.2cm) Twin Row		Set Sprocket to Tooth Number on ..	
Population Seeds per Acre	Single Row Seed Spacing (in)	Front Meter	Rear Meter
26,600 to 28,300	14.8 to 15.7	1	13
28,300 to 29,900	14.0 to 14.8	1	5
29,900 to 31,500	13.3 to 14.0	1	16
31,500 to 33,000	12.7 to 13.3	1	8
33,000 to 34,700	12.1 to 12.7	Advance ☞	19
34,700 to 36,200	11.6 to 12.1	Current ☞	11
36,200 to 37,800	11.1 to 11.6	Retard ☞	3
37,800 to 39,300	10.6 to 11.1	1	14
39,300 to 40,800	10.3 to 10.6	1	6
40,800 to 42,500	9.8 to 10.3	1	17
42,500 to 44,000	9.5 to 9.8	1	9
44,000 to 45,400	9.2 to 9.5	1	1

Figure 11: Portion of 12-Finger Sprocket Indexing Chart 31457B

Volumetric Meter Planting

In Singulator Plus™ planting with volumetric[a] seed wheels, planting rate is determined by:

- row spacing
- crop and seed variant
- meter wheel selection, and
- meter drive configuration (which relies on the “weight per meter revolution” data in the following tables).

There are no other adjustments, but to achieve the desired rate, calibration is strongly recommended, and there is a recommended range of meter rpms, which affects the range of ground speeds, shown in the following tables. The optimal rpm varies with meter wheel and seed type.

Volumetric planting uses “GRAN SEED CONTROL” or “granular” mode. Singulated planting employs the seed monitor in “PLANTER CONTROL” mode, and is covered at “**Singulated Planting Overview**” on page 2.

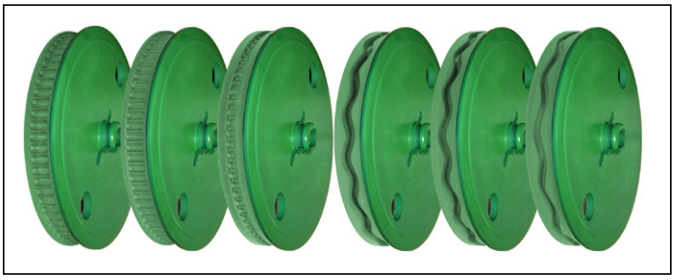


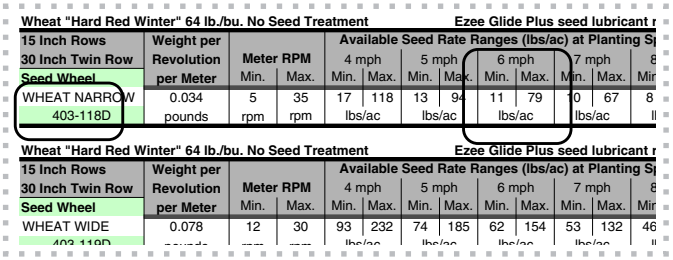
Figure 12 34126
Volumetric Seed Wheels

NOTICE

Population Risk:
If the seed monitor is presently in PLANTER CONTROL mode, follow the setup instructions carefully. Switching between seeding modes can cause some planter configuration values to be reset to defaults that are incorrect for your planter.

1. For your crop, determine your intended population, in pounds/acre or kg/hectare.
2. For your crop, population and desired field speed, verify the suitability of your seed wheel at the intended population and field speed. See “**Reading a Volumetric Chart**” on page 29, and “**Singulator Plus Volumetric Seed Wheel Data**” on page 36.

Note: If a rate/speed table is not provided for your crop, that crop has not yet been tested on the YP2425 and YP2425F planter.



Wheat "Hard Red Winter" 64 lb./bu. No Seed Treatment														Ezee Glide Plus seed lubricant r			
15 Inch Rows	Weight per			Available Seed Rate Ranges (lbs/ac) at Planting S													
30 Inch Twin Row	Revolution	Meter RPM		4 mph		5 mph		6 mph		7 mph		8					
Seed Wheel	per Meter	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min					
WHEAT NARROW	0.034	5	35	17	118	13	94	11	79	10	67	8					
403-118D	pounds	rpm	rpm	lbs/ac		lbs/ac		lbs/ac		lbs/ac		l					
Wheat "Hard Red Winter" 64 lb./bu. No Seed Treatment														Ezee Glide Plus seed lubricant r			
15 Inch Rows	Weight per			Available Seed Rate Ranges (lbs/ac) at Planting S													
30 Inch Twin Row	Revolution	Meter RPM		4 mph		5 mph		6 mph		7 mph		8					
Seed Wheel	per Meter	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min					
WHEAT WIDE	0.078	12	30	93	232	74	185	62	154	53	132	46					

a. Volumetric planting is referred to as “GRAN” or “granular” in the seed monitor manual and displays.

For step 3 through step 5, any needed data not provided in this manual can be found in one or more of:
DICKEY-john® Quick Start Guide
YP2425 and YP2425F Operator Manual
Refer to the DICKEY-john® IntelliAg® Planter/Drill Control Operator's Manual for details on setup items.

3. Verify, and as necessary setup or update the "Material" record for the granular seed to be planted.

   The table at right lists the parameters that need to be reviewed or set. Values in <angle brackets> are at your choice or preference.

Note: "Spreader Constant" is a critical value, and must be established by calibration. Do not plant with the default value for this item. No entry is require if calibration is planned prior to planting (page 27).

Otherwise, enter a value from a previous calibration of the same wheels, seed and seed variety. If these is any chance that the seed batch varies from the prior calibration, re-calibrate.

4. Verify, and as necessary setup or update the "Channel" assigned to the planter's hydraulic drive.

   If the monitor resets to defaults, Gear Ratio may be incorrect.

   Count rows individually for "# Seed Rows". A twin pair (if both openers are in use) counts as 2 rows.

   "Channel Width" is swath (number of active rows times spacing between active rows).

5. In the Material Library screen, makes sure that the Material (WHEAT HRW in our example) is assigned to the Channel (Ch 1 in our example) which controls the planter's hydraulic drive.
6. Perform a Valve Calibration for the control channel.
7. Switch the seed monitor from Setup/Configuration mode to Operate mode. Load seed. Move the planter to the field.
8. Verify your planting rate per the instructions in the next topic. If the results are consistent with your setup, plant the crop.

Material	Data Required
Material Name	<crop name, such as "WHEAT HRW">
Channel	"CH 1" (typically, can be 1-4)
Type	"GRAN SEED CONTROL"
Units	<your election>
Preset Method	"Disabled" unless populations vary
Target Rate	<your election> (in "Units")
Max Rate	<110% of Target> is suggested
Min Rate	<90% of Target> is suggested
Inc/Dec	"1.0%" is suggested
Density	"1" if calibration planned, else use a value established by prior calibration
Spreader Constant	See note at left
Seeds per (unit)	<from seed supplier - used to calculate some alarms>
Low Shaft RPM	<from seed rate chart for wheel>
High Shaft RPM	<from seed rate chart for wheel>
High Pop Alarm	<"20%"> is suggested
Low Pop Alarm	<"20%"> is suggested
Prod Level Alarm	"0" (not used on YP2425 and YP2425F)

Channel	Data Required
CHANNEL 1	(must be channel specified above)
Type	"GRAN SEED CONTROL"
Material Name	(must be material name specified above)
Control Mode	Auto
Drive Type	PWM 1
Drive Freq.	100 Hz
Input Filter	50%
Gear Ratio	1.900
Sensor Constant	360
# Seed Rows	<based on planter model/row setup>
Channel Width	<based on planter model/row setup>
Precharge Time	0
Delay Time	0
Flush Enable	Disabled

Calibrating Volumetric Rate Spreader Constant

Calibration (which determines the Spreader Constant) is required for accurate planting of volumetric (GRAN) seed.

Volumetric seeds are planted at much higher populations than singulated seeds, and are measured in pounds or kilograms (rather than seeds) per acre or hectare. The seed tube sensors are generally not capable of counting every seed at typical volumetric rates (although they do report blockage).

For volumetric calibration, the tractor must to be hitched to the planter, and providing electrical power. Leave all hydraulic circuits in Neutral until instructed to activate the drive circuit.

1. You will need a light weight container for each row sampled, and a scale that is accurate at the expected sample weight. Great Plains recommends using enough rows and/or revolutions to generate a sample of about 10 pounds (4.5 kg), ideally:
   - Use at least two rows.
   - Use no fewer than 5 meter revolutions.
2. Determine the meter revolutions needed. The following equation gives the number of meter revolutions needed to meter 10 pounds. The table on page 36 provides approximate pounds (and kg) per revolution of each wheel and seed.

$$\#MeterRevs = \frac{10}{RowsSampled \times PoundsPerRev}$$

3. Configure the seed monitor for the planter and crop (material). If the seed density is not known, use 1 lb./cu-ft, 1 lb./bu or 1 kg/l.
4. Consult the rate chart for the crop. Note the allowed Meter RPM range for the intended seed wheel and planting speed (see “**Reading a Volumetric Chart**” on page 29).
5. Select the section and rows to be sampled.
6. Use the clutches to disconnect the other sections of the planter. This eliminates the need to uncouple the meters on those sections.
7. Disengage the drive couplers on all other meters on the test section, except the meters to be used for testing.

CAUTION

Planter Section Movement Hazard:
Hydraulic circuits are active for calibration. Unexpected movement of planter mainframe, sections, markers, and unexpected activation of auxiliary devices can occur if controls are not correctly pre-set and left untouched. Keep everyone clear of planter while calibrating.

NOTICE

Population Risk:
Calibrate - Planting volumetric seed based only on chart data is risky. Your material, and your field results, can vary substantially from the test material used to generate the charts. Great Plains strongly recommends calibration.

For Example
4 containers each weighing: 8 oz.
8 oz. × 4 = 32 oz.
ContainerWeight at step 12 is: 2 lbs.

For example: planter: YP2425-4715, 15 rows
wheel: 403-118D WHEAT NARROW
crop: Hard Red Winter wheat
PoundsPerRev: 0.078
RowsSampled: 4
10 ÷ (4 × 0.078) = 32
Enter 32 for “# Meter Revs” at step 11 on page 28.

For example: target population: 110 lbs./ac
desired speed: 5 mph
METER RPM 5 rpm minimum, 35 rpm maximum
Target Meter rpm: 30

8. Raise the planter, and install the lift cylinder transport locks. Leave the tractor hydraulic system active.
9. Activate the hydraulic drive circuit. Command the planter seed monitor to:
   FILL DISK
10. Place a collection bucket under each test meter's seed tube.
11. In the Spreader Constant Calibration screen, enter the "# Meter Revs" and press the [Start] button.
12. Weigh the containers plus seed (*GrossWeight*). Subtract the empty container weights to obtain the net weight.

$$NetWeight = GrossWeight - ContainerWeight$$

13. The seed monitor assumes that all rows were tested. If you tested fewer (commonly the case), scale the sample size to planter-wide:

$$AmountDispensed = \frac{NetWeight \times RowCount}{RowsSampled}$$

14. Enter the Amount Dispensed.
    The seed monitor computes a new Spreader Constant.

Note: If the net weight of the metered sampled was dramatically different than expected, run another calibration to validate or revise the new spreader constant.

15. Re-engage couplers on disabled meters.

CAUTION

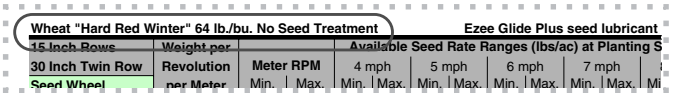
Moving Chain Hazard:
Shafts turn and chains move as soon as the [Start] softkey is pressed on the seed monitor. Set up collection containers so that they may be unattended. Keep all persons clear of the planter while calibrating.

For example:
ContainerWeight: 2 lbs.
GrossWeight: 12.88 lbs.
12.88 - 2 = 10.88
NetWeight: 10.88 lbs.

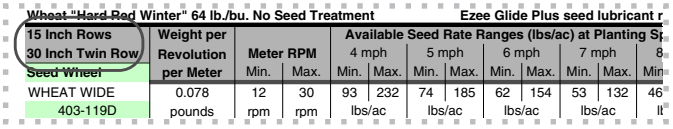
For example:
NetWeight: 10.88 lbs.
RowCount: 47
RowsSampled: 4
(10.88 × 47) ÷ 4 = 127.84 lbs.
AmountDispensed: 127.8

Reading a Volumetric Chart

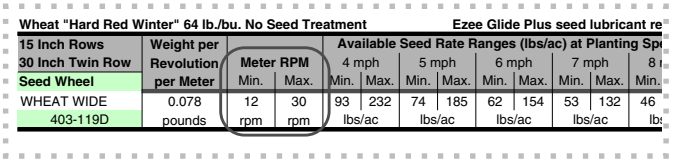
1. Using the rate range charts on pages 30-35, find the chart for your seed, in this example, Hard Red Winter Wheat.



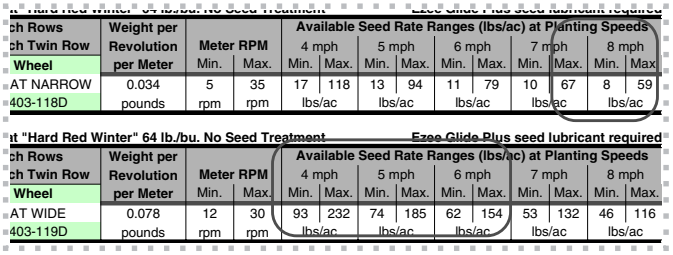
2. Find your row spacing at right side of the chart, 15 inch single row in this example.



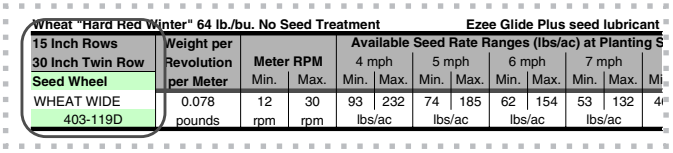
3. The speed and rate ranges are determined by allowable meter rpms. Enter the Meter RPM limits in the seed monitor to set alarms for operations that are too slow or too fast.



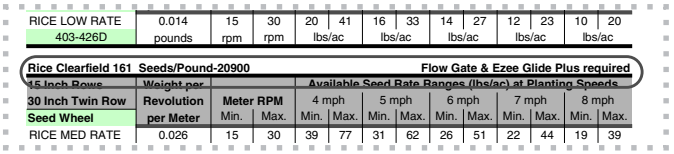
4. With your desired seed population in mind (for example, 75 pounds/ac), note at which field speeds that population remains in range. These are the ranges, in pounds per acre, within which the seed is metered accurately. In this example, speeds of 4 to 6 mph are in range for the “WHEAT NARROW” wheel, but only 8 mph is in range for the “WHEAT WIDE” wheel. Assuming that a slower speed is desired, choose the “NARROW” wheel.



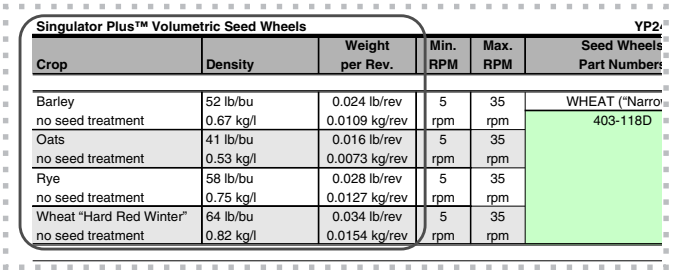
5. Verify that you have the correct seed wheel for the chart, WHEAT NARROW in this example.



6. For Rice, note that a Flow Gate (p/n 817-529C) is required inside each seed meter. Rice seed wheels may be ordered:
as wheels only: (“D” p/n, without Flow Gate), or
as kits (“A” p/n, with Flow Gate).



7. The tables on pages 30-35 and page 36 are insufficient for setting the seed monitor to control the hydraulic drive. The monitor also needs a figure for meter throughput. Running a calibration (page 27) is the easiest way to ensure that your material is accurately applied.



NOTICE

Population Risk:

If your desired seed rate and planting speed fall within the chart range, proceed to calibration and planting. Otherwise, you must pick another combination of seed wheel and planting speed.

NOTICE

Calibrate. Planting volumetric (“granular”) seed based only on chart data is risky. Your material can vary substantially from the test material used to generate the charts.

Volumetric Charts

Barley 52 lb./bu. No Seed Treatment — **Ezee Glide Plus seed lubricant required**

15 Inch Rows / 30 Inch Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM Min.	Meter RPM Max.	Available Seed Rate Ranges (lbs/ac) at Planting Speeds: 4 mph Min.	4 mph Max.	5 mph Min.	5 mph Max.	6 mph Min.	6 mph Max.	7 mph Min.	7 mph Max.	8 mph Min.	8 mph Max.
WHEAT NARROW	0.024	5	35	12	83	10	67	8	55	7	48	6	42
403-118D	pounds	rpm	rpm	lbs/ac		lbs/ac		lbs/ac		lbs/ac		lbs/ac	

Barley 52 lb./bu. No Seed Treatment — **Ezee Glide Plus seed lubricant required**

15 Inch Rows / 30 Inch Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM Min.	Meter RPM Max.	Available Seed Rate Ranges (lbs/ac) at Planting Speeds: 4 mph Min.	4 mph Max.	5 mph Min.	5 mph Max.	6 mph Min.	6 mph Max.	7 mph Min.	7 mph Max.	8 mph Min.	8 mph Max.
WHEAT WIDE	0.053	12	30	62	156	50	125	42	104	36	89	31	78
403-119D	pounds	rpm	rpm	lbs/ac		lbs/ac		lbs/ac		lbs/ac		lbs/ac	

Barley 48 lb./bu. No Seed Treatment — **Ezee Glide Plus seed lubricant required**

15 Inch Rows / 30 Inch Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM Min.	Meter RPM Max.	Available Seed Rate Ranges (lbs/ac) at Planting Speeds: 4 mph Min.	4 mph Max.	5 mph Min.	5 mph Max.	6 mph Min.	6 mph Max.	7 mph Min.	7 mph Max.	8 mph Min.	8 mph Max.
WHEAT V3	0.066	12	30	78	195	62	156	52	130	44	111	39	97
403-120D	pounds	rpm	rpm	lbs/ac		lbs/ac		lbs/ac		lbs/ac		lbs/ac	

34127B

Barley 0.67 kg/litre. No Seed Treatment — **Ezee Glide Plus seed lubricant required**

38.1 cm Rows / 76.2 cm Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM Min.	Meter RPM Max.	Available Seed Rate Ranges (kg/ha) at Planting Speeds: 6.4 kph Min.	6.4 kph Max.	8.0 kph Min.	8.0 kph Max.	9.7 kph Min.	9.7 kph Max.	11.3 kph Min.	11.3 kph Max.	12.9 kph Min.	12.9 kph Max.
WHEAT NARROW	0.011	5	35	13	93	11	75	9	62	8	53	7	47
403-118D	kg	rpm	rpm	kg/ha		kg/ha		kg/ha		kg/ha		kg/ha	

Barley 0.67 kg/litre. No Seed Treatment — **Ezee Glide Plus seed lubricant required**

38.1 cm Rows / 76.2 cm Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM Min.	Meter RPM Max.	Available Seed Rate Ranges (kg/ha) at Planting Speeds: 6.4 kph Min.	6.4 kph Max.	8.0 kph Min.	8.0 kph Max.	9.7 kph Min.	9.7 kph Max.	11.3 kph Min.	11.3 kph Max.	12.9 kph Min.	12.9 kph Max.
WHEAT WIDE	0.024	12	30	70	175	56	140	47	117	40	100	35	88
403-119D	kg	rpm	rpm	kg/ha		kg/ha		kg/ha		kg/ha		kg/ha	

Barley 0.62 kg/litre. No Seed Treatment — **Ezee Glide Plus seed lubricant required**

38.1 cm Rows / 76.2 cm Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM Min.	Meter RPM Max.	Available Seed Rate Ranges (kg/ha) at Planting Speeds: 6.4 kph Min.	6.4 kph Max.	8.0 kph Min.	8.0 kph Max.	9.7 kph Min.	9.7 kph Max.	11.3 kph Min.	11.3 kph Max.	12.9 kph Min.	12.9 kph Max.
WHEAT V3	0.030	12	30	87	218	70	174	58	145	50	125	44	109
403-120D	kg	rpm	rpm	kg/ha		kg/ha		kg/ha		kg/ha		kg/ha	

34127C

Oats 41 lb./bu. No Seed Treatment — **Ezee Glide Plus seed lubricant required**

15 Inch Rows / 30 Inch Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM Min.	Meter RPM Max.	Available Seed Rate Ranges (lbs/ac) at Planting Speeds: 4 mph Min.	4 mph Max.	5 mph Min.	5 mph Max.	6 mph Min.	6 mph Max.	7 mph Min.	7 mph Max.	8 mph Min.	8 mph Max.
WHEAT NARROW	0.016	5	35	8	55	6	44	5	37	5	32	4	28
403-118D	pounds	rpm	rpm	lbs/ac		lbs/ac		lbs/ac		lbs/ac		lbs/ac	

Oats 41 lb./bu. No Seed Treatment — **Ezee Glide Plus seed lubricant required**

15 Inch Rows / 30 Inch Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM Min.	Meter RPM Max.	Available Seed Rate Ranges (lbs/ac) at Planting Speeds: 4 mph Min.	4 mph Max.	5 mph Min.	5 mph Max.	6 mph Min.	6 mph Max.	7 mph Min.	7 mph Max.	8 mph Min.	8 mph Max.
WHEAT WIDE	0.039	12	30	46	115	37	92	31	76	26	66	23	57
403-119D	pounds	rpm	rpm	lbs/ac		lbs/ac		lbs/ac		lbs/ac		lbs/ac	

Oats 38.5 lb./bu. No Seed Treatment — **Ezee Glide Plus seed lubricant required**

15 Inch Rows / 30 Inch Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM Min.	Meter RPM Max.	Available Seed Rate Ranges (lbs/ac) at Planting Speeds: 4 mph Min.	4 mph Max.	5 mph Min.	5 mph Max.	6 mph Min.	6 mph Max.	7 mph Min.	7 mph Max.	8 mph Min.	8 mph Max.
WHEAT V3	0.062	12	30	74	184	59	147	49	123	42	105	37	92
403-120D	pounds	rpm	rpm	lbs/ac		lbs/ac		lbs/ac		lbs/ac		lbs/ac	

34127D

Oats 0.5 kg/litre. No Seed Treatment — **Ezee Glide Plus seed lubricant required**

38.1 cm Rows / 76.2 cm Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM Min.	Meter RPM Max.	Available Seed Rate Ranges (kg/ha) at Planting Speeds: 6.4 kph Min.	6.4 kph Max.	8.0 kph Min.	8.0 kph Max.	9.7 kph Min.	9.7 kph Max.	11.3 kph Min.	11.3 kph Max.	12.9 kph Min.	12.9 kph Max.
WHEAT NARROW	0.007	5	35	9	62	7	50	6	41	5	36	4	31
403-118D	kg	rpm	rpm	kg/ha		kg/ha		kg/ha		kg/ha		kg/ha	

Oats 0.5 kg/litre. No Seed Treatment — **Ezee Glide Plus seed lubricant required**

38.1 cm Rows / 76.2 cm Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM Min.	Meter RPM Max.	Available Seed Rate Ranges (kg/ha) at Planting Speeds: 6.4 kph Min.	6.4 kph Max.	8.0 kph Min.	8.0 kph Max.	9.7 kph Min.	9.7 kph Max.	11.3 kph Min.	11.3 kph Max.	12.9 kph Min.	12.9 kph Max.
WHEAT WIDE	0.018	12	30	51	128	41	103	34	86	29	73	26	64
403-119D	kg	rpm	rpm	kg/ha		kg/ha		kg/ha		kg/ha		kg/ha	

Oats 0.5 kg/litre. No Seed Treatment — **Ezee Glide Plus seed lubricant required**

38.1 cm Rows / 76.2 cm Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM Min.	Meter RPM Max.	Available Seed Rate Ranges (kg/ha) at Planting Speeds: 6.4 kph Min.	6.4 kph Max.	8.0 kph Min.	8.0 kph Max.	9.7 kph Min.	9.7 kph Max.	11.3 kph Min.	11.3 kph Max.	12.9 kph Min.	12.9 kph Max.
WHEAT V3	0.028	12	30	83	206	66	165	55	138	47	118	41	103
403-120D	kg	rpm	rpm	kg/ha		kg/ha		kg/ha		kg/ha		kg/ha	

34127E

Rye 58 lb./bu. No Seed Treatment **Ezee Glide Plus seed lubricant required**

15 Inch Rows 30 Inch Twin Row Seed Wheel	Weight per Revolution per Meter	Meter RPM		Available Seed Rate Ranges (lbs/ac) at Planting Speeds									
				4 mph		5 mph		6 mph		7 mph		8 mph	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
WHEAT NARROW	0.028	5	35	14	97	11	78	9	65	8	55	7	49
403-118D	pounds	rpm	rpm	lbs/ac		lbs/ac		lbs/ac		lbs/ac		lbs/ac	

Rye 58 lb./bu. No Seed Treatment **Ezee Glide Plus seed lubricant required**

15 Inch Rows 30 Inch Twin Row Seed Wheel	Weight per Revolution per Meter	Meter RPM		Available Seed Rate Ranges (lbs/ac) at Planting Speeds									
				4 mph		5 mph		6 mph		7 mph		8 mph	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
WHEAT WIDE	0.062	12	30	74	184	59	147	49	123	42	105	37	92
403-119D	pounds	rpm	rpm	lbs/ac		lbs/ac		lbs/ac		lbs/ac		lbs/ac	

34127F

Rye 0.75 kg/litre. No Seed Treatment **Ezee Glide Plus seed lubricant required**

38.1 cm Rows 76.2 cm Twin Row Seed Wheel	Weight per Revolution per Meter	Meter RPM		Available Seed Rate Ranges (kg/ha) at Planting Speeds									
				6.4 kph		8.0 kph		9.7 kph		11.3 kph		12.9 kph	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
WHEAT NARROW	0.013	5	35	16	109	12	87	10	72	9	62	8	54
403-118D	kg	rpm	rpm	kg/ha		kg/ha		kg/ha		kg/ha		kg/ha	

Rye 0.75 kg/litre. No Seed Treatment **Ezee Glide Plus seed lubricant required**

38.1 cm Rows 76.2 cm Twin Row Seed Wheel	Weight per Revolution per Meter	Meter RPM		Available Seed Rate Ranges (kg/ha) at Planting Speeds									
				6.4 kph		8.0 kph		9.7 kph		11.3 kph		12.9 kph	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
WHEAT WIDE	0.028	12	30	83	206	66	165	55	138	47	118	41	103
403-119D	kg	rpm	rpm	kg/ha		kg/ha		kg/ha		kg/ha		kg/ha	

34127G

Rice CLXL8 Seeds/Pound-21855 — **Flow Gate & Ezee Glide Plus required**

15 Inch Rows / 30 Inch Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM		Available Seed Rate Ranges (lbs/ac) at Planting Speeds									
				4 mph		5 mph		6 mph		7 mph		8 mph	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
RICE LOW RATE	0.014	15	30	20	41	16	33	14	27	12	23	10	20
403-426D	pounds	rpm	rpm	lbs/ac		lbs/ac		lbs/ac		lbs/ac		lbs/ac	

Rice Clearfield 161 Seeds/Pound-20900 — **Flow Gate & Ezee Glide Plus required**

15 Inch Rows / 30 Inch Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM		Available Seed Rate Ranges (lbs/ac) at Planting Speeds									
				4 mph		5 mph		6 mph		7 mph		8 mph	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
RICE MED RATE	0.026	15	30	39	77	31	62	26	51	22	44	19	39
403-143D	pounds	rpm	rpm	lbs/ac		lbs/ac		lbs/ac		lbs/ac		lbs/ac	

Rice 45 lb./bu. CYPRESS No Seed Treatment — **Flow Gate & Ezee Glide Plus required**

15 Inch Rows / 30 Inch Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM		Available Seed Rate Ranges (lbs/ac) at Planting Speeds									
				4 mph		5 mph		6 mph		7 mph		8 mph	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
RICE HIGH RATE	0.044	15	30	65	131	52	105	44	87	37	75	33	65
403-121D	pounds	rpm	rpm	lbs/ac		lbs/ac		lbs/ac		lbs/ac		lbs/ac	

34127H

Rice CLXL8 48182 seeds/kg. — **Flow Gate & Ezee Glide Plus required**

38.1 cm Rows / 76.2 cm Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM		Available Seed Rate Ranges (kg/ha) at Planting Speeds									
				6.4 kph		8.0 kph		9.7 kph		11.3 kph		12.9 kph	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
RICE LOW RATE	0.006	15	30	22	46	18	37	16	30	13	26	11	22
403-426D	kg	rpm	rpm	kg/ha		kg/ha		kg/ha		kg/ha		kg/ha	

Rice Clearfield 161 46077 seeds/kg. — **Flow Gate & Ezee Glide Plus required**

38.1 cm Rows / 76.2 cm Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM		Available Seed Rate Ranges (kg/ha) at Planting Speeds									
				6.4 kph		8.0 kph		9.7 kph		11.3 kph		12.9 kph	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
RICE MED RATE	0.012	15	30	44	86	35	69	29	57	25	49	21	44
403-143D	kg	rpm	rpm	kg/ha		kg/ha		kg/ha		kg/ha		kg/ha	

Rice Cypress 0.58 kg/litre. No Seed Treatment — **Flow Gate & Ezee Glide Plus required**

38.1 cm Rows / 76.2 cm Twin Row / Seed Wheel	Weight per Revolution per Meter	Meter RPM		Available Seed Rate Ranges (kg/ha) at Planting Speeds									
				6.4 kph		8.0 kph		9.7 kph		11.3 kph		12.9 kph	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
RICE HIGH RATE	0.020	15	30	73	147	58	118	49	98	41	84	37	73
403-121D	kg	rpm	rpm	kg/ha		kg/ha		kg/ha		kg/ha		kg/ha	

34127J

Wheat "Hard Red Winter" 64 lb./bu. No Seed Treatment **Ezee Glide Plus seed lubricant required**

15 Inch Rows 30 Inch Twin Row	Weight per Revolution	Meter RPM		Available Seed Rate Ranges (lbs/ac) at Planting Speeds									
				4 mph		5 mph		6 mph		7 mph		8 mph	
Seed Wheel	per Meter	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
WHEAT NARROW	0.034	5	35	17	118	13	94	11	79	10	67	8	59
403-118D	pounds	rpm	rpm	lbs/ac		lbs/ac		lbs/ac		lbs/ac		lbs/ac	

Wheat "Hard Red Winter" 64 lb./bu. No Seed Treatment **Ezee Glide Plus seed lubricant required**

15 Inch Rows 30 Inch Twin Row	Weight per Revolution	Meter RPM		Available Seed Rate Ranges (lbs/ac) at Planting Speeds									
				4 mph		5 mph		6 mph		7 mph		8 mph	
Seed Wheel	per Meter	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
WHEAT WIDE	0.078	12	30	93	232	74	185	62	154	53	132	46	116
403-119D	pounds	rpm	rpm	lbs/ac		lbs/ac		lbs/ac		lbs/ac		lbs/ac	

34127K

Wheat HRW 0.82 kg/litre. No Seed Treatment **Ezee Glide Plus seed lubricant required**

38.1 cm Rows 76.2 cm Twin Row	Weight per Revolution	Meter RPM		Available Seed Rate Ranges (kg/ha) at Planting Speeds									
				6.4 kph		8.0 kph		9.7 kph		11.3 kph		12.9 kph	
Seed Wheel	per Meter	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
WHEAT NARROW	0.015	5	35	19	132	15	106	13	88	11	75	9	66
403-118D	kg	rpm	rpm	kg/ha		kg/ha		kg/ha		kg/ha		kg/ha	

Wheat HRW 0.82 kg/litre. No Seed Treatment **Ezee Glide Plus seed lubricant required**

38.1 cm Rows 76.2 cm Twin Row	Weight per Revolution	Meter RPM		Available Seed Rate Ranges (kg/ha) at Planting Speeds									
				6.4 kph		8.0 kph		9.7 kph		11.3 kph		12.9 kph	
Seed Wheel	per Meter	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
WHEAT WIDE	0.035	12	30	104	260	83	208	69	173	59	148	52	130
403-119D	kg	rpm	rpm	kg/ha		kg/ha		kg/ha		kg/ha		kg/ha	

34127L

Wheat "Soft Red Winter" 62 lb./bu. with Seed Treatment **Ezee Glide Plus seed lubricant required**

15 Inch Rows 30 Inch Twin Row	Weight per Revolution	Meter RPM		Available Seed Rate Ranges (lbs/ac) at Planting Speeds									
				4 mph		5 mph		6 mph		7 mph		8 mph	
Seed Wheel	per Meter	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
WHEAT WIDE	0.068	12	30	81	202	65	162	54	135	46	115	40	101
403-119D	pounds	rpm	rpm	lbs/ac		lbs/ac		lbs/ac		lbs/ac		lbs/ac	

Wheat "Soft Red Winter" 62 lb./bu. with Seed Treatment **Ezee Glide Plus seed lubricant required**

15 Inch Rows 30 Inch Twin Row	Weight per Revolution	Meter RPM		Available Seed Rate Ranges (lbs/ac) at Planting Speeds									
				4 mph		5 mph		6 mph		7 mph		8 mph	
Seed Wheel	per Meter	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
WHEAT V3	0.091	12	30	108	269	86	215	72	179	62	154	54	135
403-120D	pounds	rpm	rpm	lbs/ac		lbs/ac		lbs/ac		lbs/ac		lbs/ac	

34127M

Wheat SRW 0.80 kg/litre. with Seed Treatment **Ezee Glide Plus seed lubricant required**

38.1 cm Rows 76.2 cm Twin Row	Weight per Revolution	Meter RPM		Available Seed Rate Ranges (kg/ha) at Planting Speeds									
				6.4 kph		8.0 kph		9.7 kph		11.3 kph		12.9 kph	
Seed Wheel	per Meter	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
WHEAT WIDE	0.011	12	30	91	226	73	182	61	151	52	129	45	113
403-119D	kg	rpm	rpm	kg/ha		kg/ha		kg/ha		kg/ha		kg/ha	

Wheat SRW 0.80 kg/litre. with Seed Treatment **Ezee Glide Plus seed lubricant required**

38.1 cm Rows 76.2 cm Twin Row	Weight per Revolution	Meter RPM		Available Seed Rate Ranges (kg/ha) at Planting Speeds									
				6.4 kph		8.0 kph		9.7 kph		11.3 kph		12.9 kph	
Seed Wheel	per Meter	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
WHEAT V3	0.024	12	30	121	302	96	241	81	201	69	173	61	151
403-120D	kg	rpm	rpm	kg/ha		kg/ha		kg/ha		kg/ha		kg/ha	

Singulator Plus Volumetric Seed Wheel Data

Singulator Plus™ Volumetric Seed Wheels **YP24 Planter**

Crop	Density	Weight per Rev.	Min. RPM	Max. RPM	Seed Wheels Part Numbers
Barley	52 lb/bu	0.024 lb/rev	5	35	WHEAT (“Narrow”)
no seed treatment	0.67 kg/l	0.0109 kg/rev	rpm	rpm	403-118D
Oats	41 lb/bu	0.016 lb/rev	5	35	
no seed treatment	0.53 kg/l	0.0073 kg/rev	rpm	rpm	
Rye	58 lb/bu	0.028 lb/rev	5	35	
no seed treatment	0.75 kg/l	0.0127 kg/rev	rpm	rpm	
Wheat “Hard Red Winter”	64 lb/bu	0.034 lb/rev	5	35	
no seed treatment	0.82 kg/l	0.0154 kg/rev	rpm	rpm	
Barley	52 lb/bu	0.053 lb/rev	12	30	WHEAT HIGH RATE (“Wide”)
no seed treatment	0.67 kg/l	0.0239 kg/rev	rpm	rpm	403-119D
Oats	41 lb/bu	0.039 lb/rev	12	30	
no seed treatment	0.53 kg/l	0.0175 kg/rev	rpm	rpm	
Rye	58 lb/bu	0.062 lb/rev	12	30	
no seed treatment	0.75 kg/l	0.0281 kg/rev	rpm	rpm	
Wheat “Hard Red Winter”	64 lb/bu	0.078 lb/rev	12	30	
no seed treatment	0.82 kg/l	0.0354 kg/rev	rpm	rpm	
Wheat “Soft Red Winter”	62 lb/bu	0.068 lb/rev	12	30	
with seed treatment	0.8 kg/l	0.0308 kg/rev	rpm	rpm	
Barley	48 lb/bu	0.066 lb/rev	12	30	WHEAT HIGH RATE V3
no seed treatment	0.62 kg/l	0.0297 kg/rev	rpm	rpm	403-120D
Oats	38.5 lb/bu	0.053 lb/rev	12	30	
no seed treatment	0.5 kg/l	0.0238 kg/rev	rpm	rpm	
Wheat “Soft Red Winter”	62 lb/bu	0.091 lb/rev	12	30	
with seed treatment	0.8 kg/l	0.0411 kg/rev	rpm	rpm	
*Includes required 817-529C Flow Gate					RICE LOW RATE
Rice, CLXL8	21855 seeds/lb	0.014 lb/rev	15	30	403-248A*
	48200 seeds/kg	0.0062 kg/rev	rpm	rpm	403-426D
*Includes required 817-529C Flow Gate					RICE MED RATE
Rice, Clearfield 161	20900 seeds/lb	0.026 lb/rev	15	30	403-127A*
	46100 seeds/kg	0.0118 kg/rev	rpm	rpm	403-143D
* Includes required 817-529C Flow Gate					RICE HIGH RATE
Rice, Cypress	45 lb/bu	0.044 lb/rev	15	30	403-128A*
no seed treatment	0.58 kg/l	0.02 kg/rev	rpm	rpm	403-121D

Ezee Glide Plus seed lubricant required

34127A

Liquid Fertilizer Rate

Setting Liquid Fertilizer Rate

Note: YP2425F dry fertilizer rate charts are found in Supplement manual 403-362M.

If your planter is equipped with one or both optional fertilizer manifold systems, it does not include the tank.

If the planter has a Type 2[a] (formerly referred to as a “starter”) manifold, it may rely on an off-planter pump, or may use one or two ground drive pumps on the planter. For example, a Great Plains SML cart would use a ground drive pump on the planter.

See “**Ground Drive Fertilizer Rate**” on page 40 for ground drive pump configuration.

If the planter has a Type 3[a] (formerly referred to as a “hi rate”) manifold, it relies on an off-planter pump, typically the pump on a Great Plains PFC1600 or PFC2000 tank cart.

Rate setting for a PFC cart pump is found in the cart’s Operator manual.

Rate is controlled by the pump. Consistent distribution requires using the correct size orifices in the manifolds. If the orifice size is too large, flow may not be even across all rows. If the orifice size is too small, material may be dumped at the relief valve.

See “**Liquid Fertilizer Rate**” on page 37 for orifice information.

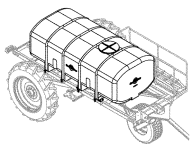
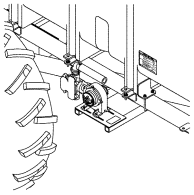
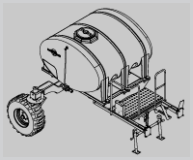
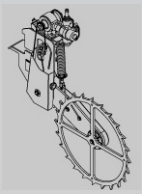
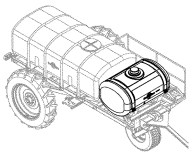
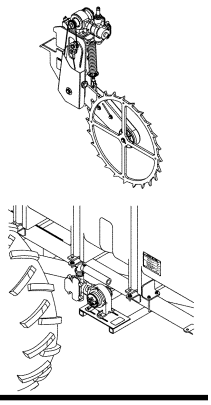
The YP2425 planter optionally includes one or two fertilizer manifolds, and may include one or two ground-driven pumps for the Type 2 manifold. Tank(s) and any off-planter pump(s) are usually located on a trailing tank cart.

The Great Plains PFC1600 (single tank) and PFC2000 (dual tank) tanks include a single pump. Refer to the tank Operator’s Manual for pump settings at the tank.

Fertilizer rate is independent of seed rate. Fertilizer rates are set by the pump systems. On-planter ground drive pump operations are described on page 40 and in the YP2425 Operator’s Manual. Off-planter pump operations are described in the tank manual.

Manifold systems include orifice plates at each row unit drop line. Each fertilizer system normally includes a pressure relief valve and strainer. These components affect consistency of flow across all rows.

Adjust the relief valve(s) per the YP2425 Operator Manual and/or tank Operator Manual.

Installed Manifold(s)	Source (Tank)	Pump
Type 3		
Type 2		
Type 2 and Type 3		

34128

DANGER

Possible Chemical Hazard:
Wear protective gloves when changing orifice plates.

NOTICE

Material Loss/Equipment Damage Risk:
Set application rate at pump using pump drive chart., not by orifice size. Orifice size is only used to create 15-65 PSI back pressure to provide even flow between rows. An orifice size too small causes material loss at relief valve. A size too large can cause application imbalance across the planter.

a. Type 2 and Type 3 are described in the YP2425 Operator manual, under Setup topic “**Fertilizer Connections**”.

Orifice Plate Selection

Refer to Figure 13

Orifice plates ① at each drop line nozzle provide back-pressure that balances flow in the manifolds, assuring that each row obtains the same flow rate. Plates are provided with the system(s) in three sizes. Additional sizes are available.

In general, the orifice ① needs to be small enough to create a minimum pressure in the manifold but large enough to prevent the manifold pressure from exceeding the maximum:
15psi min., 15-40 optimal, 65 psi max.

Using an orifice size too large can result in unequal flow at rows. Using a size too small can cause excess back-pressure resulting in material dumping at the relief valve.

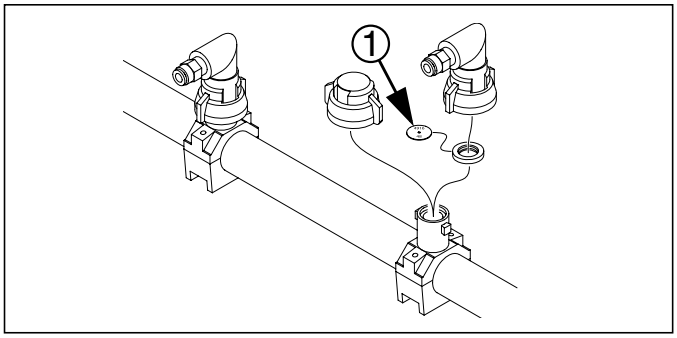


Figure 13
Fertilizer Orifice Plate

29984

Determine Orifice Size

The chart below shows rate ranges for each Great Plains orifice size and row spacing. You may need to change to the next higher or lower orifice for a different fertilizer solution density and/or a different ground speed.

To reduce orifice plugging and pump wear, use the largest orifice practical for your fertilizer application rate.

Orifice Size	Part Number	Port Diameter	Port Area
20	832-052C	0.020 in	0.20 mm²
28*	832-056C	0.028 in	0.40 mm²
34*	832-053C	0.034 in	0.59 mm²
48*	832-054C	0.048 in	1.17 mm²
59	832-057C	0.059 in	1.76 mm²
80	832-055C	0.080 in	3.24 mm²
98	832-059C	0.098 in	4.87 mm²

* Sizes standard in many fertilizer bundles. Check your accessories before ordering.

29993

Orifice Plate Selection - U.S. Customary Units

Orifice Plate Size	20	28*	34*	48*	59	80	98
Nozzle Spacing	Recommended Rate Range in Gallons per Acre. Range is 15 - 40 PSI (Values based on: 5.0 mph, 10.7 lbs/gallon Fertilizer solution density)						
15in single (30TR)	2.2 - 3.6	4.2 - 6.9	6.3 - 10	12 - 20	19 - 30	34 - 56	54 - 88
20 inch single	1.7 - 2.7	3.2 - 5.2	4.7 - 7.7	9.2 - 15	14 - 23	26 - 42	40 - 66
27.6in (70cm single)	1.2 - 2.0	2.3 - 3.7	3.4 - 5.6	6.7 - 11	10 - 17	19 - 30	29 - 48
30 inch single	1.1 - 1.8	2.1 - 3.4	3.2 - 5.2	6.1 - 10	9.3 - 15	17 - 28	27 - 44

* These sizes standard in most Great Plains fertilizer systems.

31014A

Orifice Plate Selection - Metric Units

Orifice Plate Size	20	28*	34*	48*	59	80	98
Nozzle Spacing	Recommended Rate Range in Litres per Hectare. Range is 15 - 40 PSI (Values based on: 8.0 kph, 1.28 kg/litre Fertilizer solution density)						
38.1 cm single (76.2 Twin)	21 - 34	39 - 64	59 - 96	115 - 188	174 - 284	318 - 520	502 - 820
50.8 cm single	16 - 26	30 - 48	44 - 72	86 - 141	130 - 213	239 - 390	376 - 615
70 cm single	11 - 19	21 - 35	32 - 52	62 - 102	95 - 155	173 - 283	273 - 446
76.2 cm single	10 - 17	20 - 32	29 - 48	57 - 94	87 - 142	159 - 260	251 - 410

* These sizes standard in most Great Plains fertilizer systems.

31014B

Strainer

Refer to Figure 14

A Banjo brand strainer is supplied with the ground drive fertilizer pump. It is plumbed before the pump. The standard 80 mesh screen ① should be suitable for most applications. Other screen sizes are available from Banjo Corporation.

⚠ DANGER

Wear protective gloves when changing screens.

If changing screen sizes, keep in mind the following.

- A smaller mesh (100) will keep very small manifold orifice plates from plugging so often. However, the screen will have to be cleaned more often.
- A larger mesh (50) or (30) will pass more material but should only be considered when using large manifold orifice plates.
- A plugged or partially plugged screen will starve the pump resulting in a reduced application rate.
- Mesh sizes: (Smallest) 100, 80, 50, 30 (Largest)

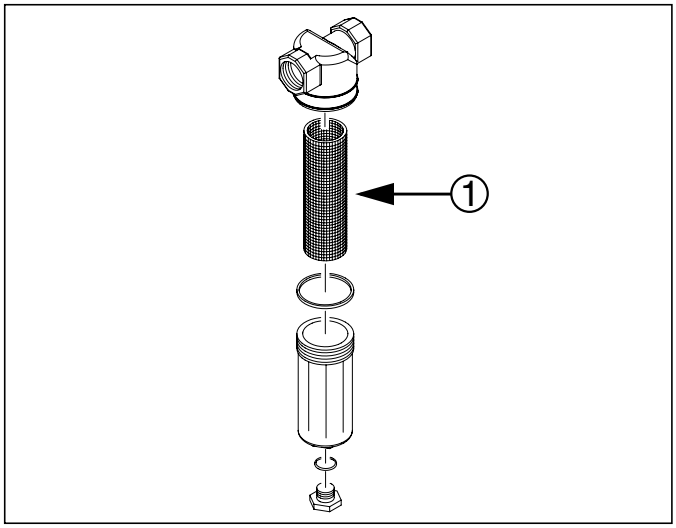


Figure 14
Strainer

18418

Ground Drive Fertilizer Rate

One or two CDS-John Blue® ground drive pumps (on newer planters), or two Hypro ground drive pumps (on older planters), customarily supply a Type 2 boom on the planter. Rate setting is different for each pump type.

JohnBlue Pump Rate

Refer to Figure 15 and Figure 16

One piston pump ② generally suffices for "starter" application rates. Two piston pumps may be required for higher rates.

Coarse rate is set by a single "driving" sprocket ③ on the ground drive assembly. Fine rate is set on a dial (setting hub) ④ at the pump, using a tool supplied with the pump.

Rate settings may be established in any of three ways:

- the table on the next page,
- the slide chart provided with the pump, or;
- a calculator on the JohnBlue internet web site (www.cds-johnblue.com)

1. Check plumbing setup. See "**Setting Relief Valve**" and "**Strainer**" in the Operator Manual.
2. Determine Driving sprocket (15T or 47T) required from table, slide chart or web calculator. If this sprocket is already installed on driven shaft, skip to step 7. Otherwise, to change sprocket, continue with step 3.
3. Remove knob ⑤ and guard ⑥. Loosen idler ⑦, and remove chain ⑧ from lower jackshaft ③.
4. Select the new sprocket from the storage shaft ⑨. Remove the pins, and exchange sprockets. Store the previous sprocket on the storage shaft.
5. Remount the chain ⑧. Re-engage idler ⑦, tightening so that the longest span of the chain has $\frac{1}{4}$in (6mm) of slack.
6. Remount guard ⑥ and secure with knob ⑤.

Refer to Figure 16

7. Using the box-wrench end of the JohnBlue 115681-01 tool, loosen the setting pointer nut ⑨.
8. Use the other end of the tool to rotate the dial ④ to the setting determined by table, slide chart or web.
9. Re-tighten pointer nut.

NOTICE

Contact wheel and chain system operate whenever the planter is lowered and in motion. If planting without fertilizing, the pump must not be allowed to run dry. Disconnect chain or remove sprocket.

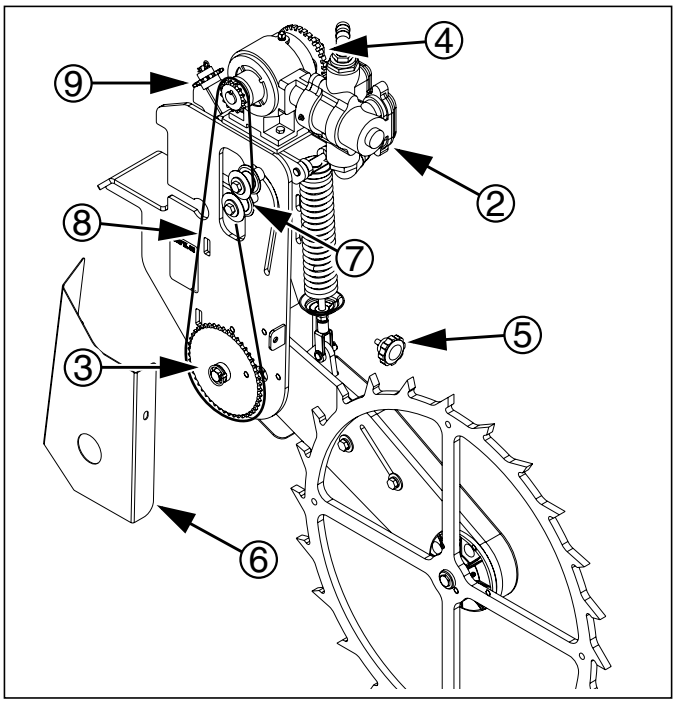


Figure 15 28416
CDS-John Blue® Pump

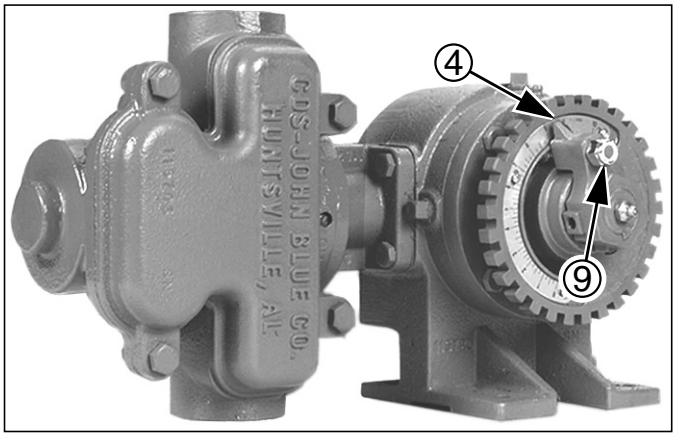


Figure 16 26155
Pump Dial

CDS-John Blue® Rates, 720 inch Swath

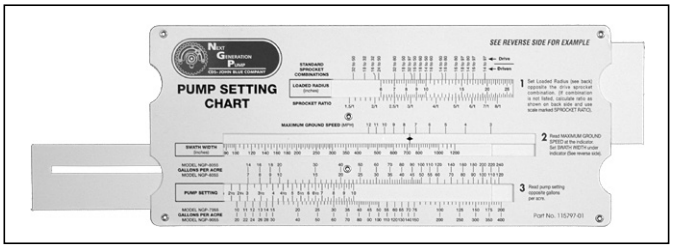
This table is in U.S. customary units, and is based on a 720 inch swath, covering models YP2425-2430, YP2425-3620 and YP2425-48TR. See page 42 or page 43 for other spacings.

For dual-pump operation, rates are double the values shown in the chart.

YP2425-2430, YP2425-3620, YP2425-48TR

Gallons per Acre	Driving Sprocket 15	Driving Sprocket 47	Liters per Hectare
	Dial Setting		
2	3.2		19
3	4.8		28
4	6.5	2.1	37
5	8.1	2.6	47
6	9.7	3.1	56
7		3.6	65
8		4.1	75
9		4.6	84
10		5.2	94
11		5.7	103
12		6.2	112
13		6.7	122
14		7.2	131
15		7.7	140
16		8.3	150
17		8.8	159
18		9.3	168
19		9.8	178

720 in. 34130A



26156

Figure 17
CDS-John Blue® Slide Chart

CDS-John Blue® Reference Data, 720 inch

Use the data below with the CDS-John Blue® 115797-01 slide chart or with the CDS-John Blue® internet calculator.

(When ordering this slide chart use the envelope number 115698-91.)

Pump Type	(•) Piston Pump NGP-6050 Series	
Data Preference	(•) English Units	
Application Rate	<user-specified>	
Drive System	(•) Ground Drive Loaded Radius: 17.55in	
Swath Width (use 1/2 of these values for a two-pump manifold)	YP2425-2430 YP2425-3620 YP2425-48TR	720 in. 720 in. 720 in.
Drive (Required): 25 (Optional): 15 or 47 (Optional): __ (Optional): __	**Driven** (Required): 15 (Optional): 15 (Optional): __ (Optional): __	
Sprocket Ratio (for slide chart)	Driving 15T: 1.67 Driving 47T: 5.22	
Ground Speed	5 mph[a]	

a. Gallons per acre is independent of speed between 2 mph and 8 mph. See advisory below.

NOTICE

Plant at or below 8 mph with the 47T Driving sprocket installed. The pump is rated for 450 rpm maximum, which is exceeded at and above 9 mph.

CDS-John Blue® Rates, 705 inch Swath

This table is in U.S. customary units, and is based on a 705 inch swath, covering model YP2425-4715. See page 41 or page 43 for other spacings.

For dual-pump operation, rates are double the values shown in the chart.

YP2425-4715

Gallons per Acre	Driving Sprocket Dial Setting 15	Driving Sprocket Dial Setting 47	Liters per Hectare
2	3.2		19
3	4.7		28
4	6.3	2.0	37
5	7.9	2.5	47
6	9.5	3.0	56
7		3.5	65
8		4.0	75
9		4.5	84
10		5.0	94
11		5.6	103
12		6.1	112
13		6.6	122
14		7.1	131
15		7.6	140
16		8.1	150
17		8.6	159
18		9.1	168
19		9.6	178

705 in. 34130C

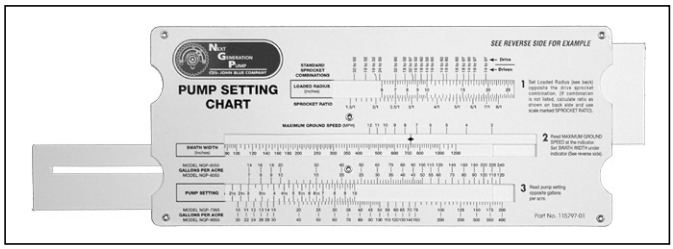


Figure 18 26156
CDS-John Blue® Slide Chart

CDS-John Blue® Reference Data, 705 inch

Use the data below with the CDS-John Blue® 115797-01 slide chart or with the CDS-John Blue® internet calculator.

(When ordering this slide chart use the envelope number 115698-91.)

Pump Type	(•) Piston Pump NGP-6050 Series	
Data Preference	(•) English Units	
Application Rate	<user-specified>	
Drive System	(•) Ground Drive Loaded Radius: 17.55in	
Swath Width (use 1/2 of these values for a two-pump manifold)	YP2425-4715	705 in.
Drive (Required): 25 (Optional): 15 or 47 (Optional): __ (Optional): __	**Driven** (Required): 15 (Optional): 15 (Optional): __ (Optional): __	
Sprocket Ratio (for slide chart)	Driving 15T: 1.67 Driving 47T: 5.22	
Ground Speed	5 mph[a]	

a. Gallons per acre is independent of speed between 2 mph and 8 mph. See advisory below.

NOTICE

Plant at or below 8 mph with the 47T Driving sprocket installed. The pump is rated for 450 rpm maximum, which is exceeded at and above 9 mph.

CDS-John Blue® Rates, 1820 cm Swath

This table is in U.S. customary units, and is based on an 1820 cm (661 inch) swath, covering models YP2425-2470 and YP2425F-2470. See page 41 or page 42 for other spacings.

For dual-pump operation, rates are double the values shown in the chart.

YP2425-2470, YP2425F-2470

Gallons per Acre	Driving Sprocket 47	Driving Sprocket 15	Liters per Hectare
	Dial Setting		
2	3.0		19
3	4.5		28
4	5.9		37
5	7.4	2.4	47
6	8.9	2.8	56
7		3.3	65
8		3.8	75
9		4.3	84
10		4.7	94
11		5.2	103
12		5.7	112
13		6.2	122
14		6.6	131
15		7.1	140
16		7.6	150
17		8.1	159
18		8.5	168
19		9.0	178
20		9.5	187
21		9.9	196

1680 cm 34130B

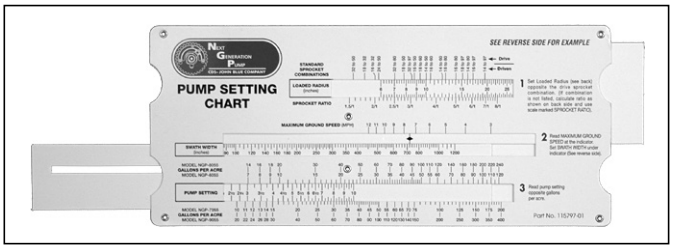


Figure 19 26156
CDS-John Blue® Slide Chart

CDS-John Blue® Reference Data, 1820 cm

Use the data below with the CDS-John Blue® 115797-01 slide chart or with the CDS-John Blue® internet calculator.

(When ordering this slide chart use the envelope number 115698-91.)

Pump Type	(•) Piston Pump NGP-6050 Series	
Data Preference	(•) English Units	
Application Rate	<user-specified>	
Drive System	(•) Ground Drive Loaded Radius: 17.55in	
Swath Width (use 1/2 of these values for a two-pump manifold)	YP2425-2470 YP2425F-2470	1680 cm 1680 cm
Drive (Required): 25 (Optional): 15 or 47 (Optional): __ (Optional): __	**Driven** (Required): 15 (Optional): 15 (Optional): __ (Optional): __	
Sprocket Ratio (for slide chart)	Driving 15T: 1.67 Driving 47T: 5.22	
Ground Speed	5 mph[a]	

a. Gallons per acre is independent of speed between 2 mph and 8 mph. See advisory below.

NOTICE

Plant at or below 13 kph with the 47T Driving sprocket installed. The pump is rated for 450 rpm maximum, which is exceeded at and above 14 kph.

Hypro Pump Rate

Two ground drive diaphragm pumps supply each wing of a Type 2 boom on older planters. The pumps ①, one on each side of the planter, are driven by ground contact wheels ②. Fertilizer rate is independent of seed rate. Fertilizer rate is set by sprockets on the ground drive assembly.

Refer to Figure 20

1. Check plumbing setup. See "**Setting Relief Valve**" and "**Strainer**" in the Operator Manual.
2. Determine Drive Type and sprocket pair required from tables following. If this pair is already installed on driving/driven shafts, no further adjustments are required. Otherwise, to change sprockets, continue with step 3.
3. Remove knob ③ and guard ④. Loosen idler ⑤, and remove chain ⑥ from Upper (driven) pump shaft Ⓤ and Lower (driving) shaft Ⓛ.
4. Select the new driven sprocket from the storage shafts ⑦,⑧. Remove the pin at shaft Ⓤ, and exchange sprockets. Store the previous sprocket on a storage shaft.
5. Select the new driving sprocket from the storage shafts ⑦,⑧. Remove the pin at shaft Ⓛ, and exchange sprockets. Store the previous sprocket on a storage shaft.
6. Remount the chain ⑥, making sure open end of clip at removable link ⑨ faces away from direction of chain travel. Re-engage idler ⑤, tightening so that the longest span of the chain has $\frac{1}{4}$ inch (6 mm) of slack.
7. Re-install guard ④ and secure with knob ③.

NOTICE

Contact wheel and chain system operate whenever the planter is lowered and in motion. If planting without fertilizing, the pump must not be allowed to run dry. Disconnect chain or remove sprocket.

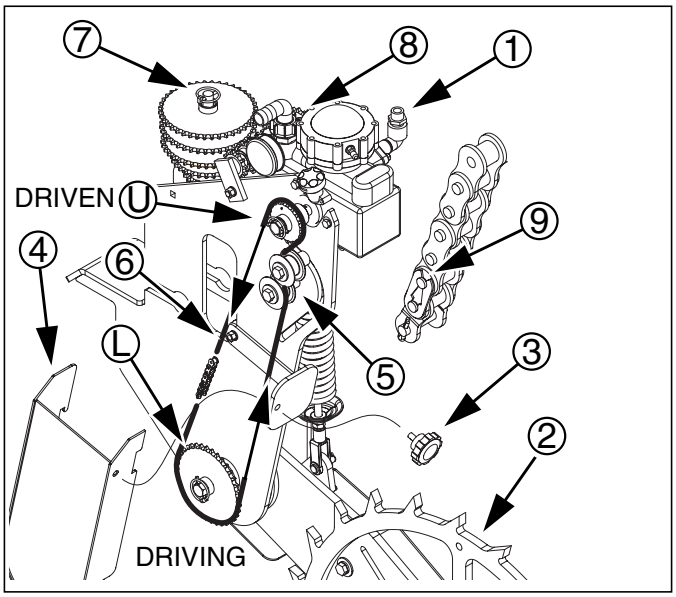


Figure 20 25319
Ground Drive Fertilizer Pump

Hypro Pump Fertilizer Rates: YP2425-2430, YP2425-3620, YP2425-48TR

		Models: YP2425-2430, YP2425-2670, YP2425-3620, YP2425-48TR							Chart: YP24A
Sprockets		Gallons Per Acre							
Driver	Driven	4 mph	4.5 mph	5 mph	5.5 mph	6 mph	6.5 mph	7 mph	7.5 mph
18T	40T	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
12T	20T	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
15T	20T	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
18T	20T	3.3	3.3	3.3	3.3	3.3	3.4	3.4	3.4
19T	18T	3.9	3.9	3.9	3.9	3.9	3.9	4.0	4.0
18T	15T	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.6
19T	14T	5.0	5.1	5.1	5.1	5.1	5.1	5.2	5.2
18T	12T	5.6	5.6	5.6	5.7	5.7	5.7	5.8	5.8
20T	12T	6.2	6.3	6.3	6.3	6.4	6.4	6.5	6.5
36T	20T	6.7	6.8	6.8	6.9	6.9	7.0	7.0	7.1
36T	18T	7.5	7.6	7.7	7.7	7.8	7.9	7.9	8.0
38T	18T	8.0	8.1	8.1	8.2	8.3	8.3	8.4	8.4
40T	18T	8.4	8.5	8.6	8.7	8.7	8.8	8.9	8.9
36T	15T	9.2	9.3	9.4	9.4	9.5	9.6	9.6	9.7
36T	14T	9.9	10.0	10.1	10.2	10.3	10.3	10.4	10.4
38T	14T	10.5	10.6	10.7	10.8	10.9	10.9	11.0	11.0
40T	14T	11.1	11.2	11.3	11.4	11.5	11.5	11.5	11.5
36T	12T	11.7	11.8	11.9	12.0	12.1	12.1	12.1	
38T	12T	12.4	12.5	12.7	12.8	12.8	12.8		
40T	12T	13.1	13.3	13.4	13.5	13.5			
45T	13T	13.7	13.8	13.9	14.0	14.0			
47T	13T	14.4	14.5	14.6	14.6				
45T	12T	14.9	15.1	15.2	15.1				
47T	12T	15.7	15.8	15.8					
49T	12T	16.4	16.5	16.5					

Hypro Pump Fertilizer Rates: YP2425-4715

		Models: YP2425-4715							Chart: YP24B
Sprockets		Gallons Per Acre							
Driver	Driven	4 mph	4.5 mph	5 mph	5.5 mph	6 mph	6.5 mph	7 mph	7.5 mph
18T	40T	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
12T	20T	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
15T	20T	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
18T	20T	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
19T	18T	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.2
18T	15T	4.6	4.7	4.7	4.7	4.7	4.7	4.7	4.8
19T	14T	5.3	5.3	5.3	5.3	5.3	5.4	5.4	5.4
18T	12T	5.8	5.9	5.9	5.9	5.9	6.0	6.0	6.1
20T	12T	6.5	6.5	6.6	6.6	6.7	6.7	6.8	6.8
36T	20T	7.0	7.1	7.1	7.2	7.2	7.3	7.4	7.4
36T	18T	7.9	7.9	8.0	8.1	8.1	8.2	8.3	8.3
38T	18T	8.3	8.4	8.5	8.6	8.6	8.7	8.8	8.8
40T	18T	8.8	8.9	9.0	9.0	9.1	9.2	9.3	9.3
36T	15T	9.6	9.7	9.8	9.9	9.9	10.0	10.1	10.1
36T	14T	10.3	10.4	10.5	10.6	10.7	10.8	10.8	10.8
38T	14T	10.9	11.0	11.2	11.3	11.4	11.4	11.4	11.4
40T	14T	11.6	11.7	11.8	11.9	12.0	12.0	12.0	12.0
36T	12T	12.2	12.3	12.5	12.6	12.6	12.7	12.6	
38T	12T	12.9	13.1	13.2	13.3	13.4	13.3		
40T	12T	13.7	13.8	14.0	14.0	14.0			
45T	13T	14.3	14.4	14.6	14.6	14.6			
47T	13T	15.0	15.1	15.2	15.2				
45T	12T	15.6	15.7	15.8	15.8				
47T	12T	16.4	16.5	16.5					
49T	12T	17.1	17.2	17.2					

Appendix

Seed Lubricants

29248

25477

Singulator Plus Meters (all seeds)

Ezee Glide Plus Talc-Graphite Mix

821-069C bucket, 5 gallon (19 liter)

Ezee Glide Plus Lubricant
To maximize performance of Great Plains metering systems, it is imperative to use only “Ezee Glide Plus” lubricant. Ezee Glide Plus” Talc-Graphite lubricant is mandatory for all seeds, especially treated or inoculated seed. *Thorough mixing of seed and added lubricant is required.*

Recommended usage:

For clean seeds other than milo and cotton sprinkle one cup of Ezee Glide Plus Talc per 4 bushels or units (170 ml per 100 liters) of seed.

For milo and cotton double the application to one cup (or more) per 2 bu. or units (335 ml per 100 liters) of seed.

Adjust this rate as necessary so all seeds become coated while avoiding an accumulation of lubricant in the bottom of the hopper.

For seed with excessive treatment, or for humid planting environments, increase the rate as needed for smooth meter operation.

⚠ CAUTION

Irritation and Chronic Exposure Hazard:
Wear gloves. DO NOT use hands or any part of your body to mix seed lubricant. Wear a respirator when transferring and mixing. Avoid breathing lubricant dust. Not an acute hazard. May cause mechanical eye or skin irritation in high concentrations. As with all mineral spills, minimize dusting during clean-up. Prolonged inhalation may cause lung injury. Product can become slippery when wet.

Finger Pickup Meters

EZ-Slide Graphite Powder

821-042C bottle, 1 pound (450 grams)
821-060C jug, 5 pound (2.3 kg)

For Finger Pick Up Meters Only
Use only approved Graphite Powder available from Great Plains Mfg. Inc. or Precision Planting to ensure proper lubrication of finger pickup corn seed meters.

Recommended usage:

For finger pickup meters, add one tablespoon (15 ml) of graphite for each unit of seed corn (80,000 kernels).

In high humidity conditions, or seeds with heavy seed treatments, increase the application to two tbsp. (30 ml).

If delivery of seed from the hopper to the finger meter is an issue, add “Ezee Glide Plus” talc and graphite blend at a rate of one cup (237 ml) per 4 units of seed. Adjust until issue is resolved.

⚠ CAUTION

Irritation and Chronic Exposure Hazard:
Wear gloves. DO NOT use hands or any part of your body to mix seed lubricant. Wear a respirator when transferring and mixing. Avoid breathing lubricant dust. Not an acute hazard. May cause mechanical eye or skin irritation in high concentrations. As with all mineral spills, minimize dusting during clean-up. Prolonged inhalation may cause lung injury.

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