



Great Plains
Manufacturing, Inc.

Seed, Small Seeds and Fertilizer Rate Charts

The following pages are to assist in the proper setting of seeding and fertilizer application rates for the 1300 End-Wheel drill. The rates indicated in the charts are approximate values. To assure the most accurate seeding rate it is recommended that the drill be calibrated for the desired seed at the time of planting.

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This section covers basic field and maintenance adjustments. Before going to the field, you must set the seeding rate and adjust the seeding depth. Check the drive chains and disks scrapers periodically during the season.

Seeding Adjustments



Figure 1
Drive Sprockets

Refer to Figure 1

- To adjust your seeding rate, first decide which drive type you need, 1,2,3 or 4, (see seeding chart). In order to change drive types, install the chain on the speed change box to desired setting, or install the chain over one of 4 different sprockets as follows: 1=72 tooth 2=34 tooth 3=23 tooth 4=14 tooth (See the owners manual for your drill.)

Drive Type Notes:

Drive Type	Sprocket	Speed
Type 1	72-tooth	Slowest
Type 2	34-tooth	Two Times Faster Than Type 1
Type 3	23-tooth	Three Times Faster Than Type 1
Type 4	14-tooth	Five Times Faster Than Type 1

Setting Seed-Rate Handle

Refer to Figure 2

Position the handle to the setting indicated on the seed-rate charts. To adjust the handle, loosen the wing nut under the handle and slide until the indicator lines up with the correct setting.

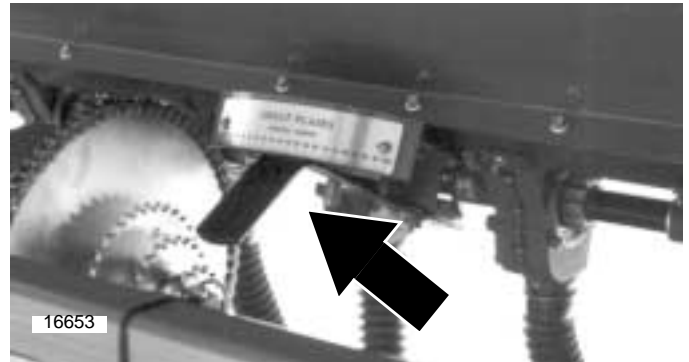


Figure 2
Seed-Rate Handle

- There are many factors which will affect seeding rates: seed treatment, weight of the seed, size of the seed, surface conditions of the seed, tire configuration, tire pressure, and tire slippage. Minor adjustments will probably be needed to compensate for the above factors.

Note: A pea-drive adaptor kit is available for the 1300 drill. Different seed-rate charts for peas and pinto beans are included in the kit.

- The pounds-per-acre in the seed chart are based on 7.5 x 20" drill rib implement gauge wheel tires.
- The large differences in seed size and treatment can cause a wide variation in actual seeding rates. The seed rate charts are based on average size seed. This may differ from the seed you are using. Use the seed rate chart as a starting point. Set the pounds-per-acre desired at the indicator number for your row spacing and complete the following procedures to calibrate the drill for your specific seed.

DANGER!

You may be severely injured or killed by being crushed from a falling implement or openers. Always have transport locks in place and frame sufficiently blocked up when working on the drill.

Checking Seeding Rate

- Place several pounds of seed over three of the feeder cups at the outboard end of the drill box.
- Disengage the lock-out hub on the drive wheel.
- Pull the seed tubes out of these three disk openers and place them into a container under the seed tubes to gather the seed while metering.

Refer to Figure 3

- d. Place the calibrator crank on the main jack shaft on the left hand side of the drill and turn it counter-clockwise the number of turns noted below which would equal one acre. (Variances are due to total swath width.) This will be:

Row spacings:	6" (15.2cm)	7 1/2" (19.1cm)	10" (25.4cm)
Rotations	134	133	131

Check to be sure each cup has plenty of seed coming into it.



**Figure 3
Calibrator Crank**

- e. Weigh the seed which has been metered. Divide by three. This will give you the ounces/pounds metered by each feeder cup. Multiply by the number of openers on your drill to arrive at the total pounds-per-acre your drill would meter at that setting. If this figure is different than desired, set your feed cup adjustment accordingly.
5. You may want to repeat the calibration procedure if the results of your calibration vary greatly from the suggested settings.

Refer to Figure 4

Be sure to return calibrator crank to the storage position and secure with lock pin upon completion of calibration.

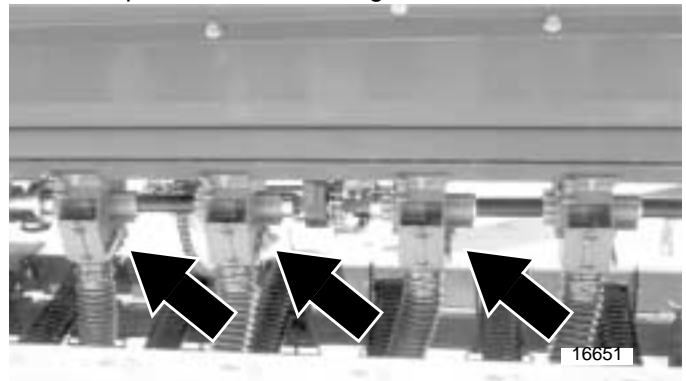


**Figure 4
Storage Position**

Remember: Tire size and field conditions will also affect seeding rates. Be certain that your drill has the correct tires and that the tires are properly inflated. When drilling, check the amount of seed you are using by noting acres drilled, amount of seed added to drill, and level of seed in drill box. If you suspect that you are drilling more or less seed than desired, and you have accurately calibrated the drill to your seed, you may need to adjust the seeding rate slightly to compensate for your field conditions.

Refer to Figure 5

Note: This drill is equipped with a four-position feed cup door on each feed cup. The highest handle is for wheat and other small grain seeds, the second handle position is for soybean and other large grain seeds. Should excessive cracking occur to the large seeds, drop the handle to the third position. The wide open position will allow complete clean out of the feed cup. **MAKE SURE** all handles are in the same position before drilling.



**Figure 5
Seed-Cup-Door Handle**

Seed Rate Charts for Imperial Measurement

Alfalfa–Drive Type 1

Based on 60 pounds per bushel

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Pounds per Acre																				
6 Inch	2.0	5.3	7.9	11.4	14.6	18.2	21.7	25.8	29.9	34.9	39.0	42.7	47.2	51.6	56.1	60.1	65.4	70.3	75.5	77.7	79.9
7.5 Inch	1.6	4.2	6.3	9.1	11.7	14.5	17.4	20.7	24.0	27.9	31.2	34.1	37.8	41.3	44.9	48.1	52.3	56.2	60.4	62.2	63.9
10 Inch	1.2	3.2	4.8	6.8	8.8	10.9	13.0	15.5	18.0	21.0	23.4	25.6	28.3	31.0	33.7	36.1	39.2	42.2	45.3	46.6	47.9

Barley–Drive Type 1

Based on 51 pounds per bushel

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Pounds per Acre																				
6 Inch	1.8	4.3	7.2	10.2	13.7	17.2	21.1	24.9	28.7	32.9	37.0	41.2	45.5	50.3	54.4	58.8	62.4	65.8	69.1	69.6	70.2
7.5 Inch	1.4	3.4	5.8	8.1	10.9	13.8	16.9	19.9	23.0	26.3	29.6	32.9	36.4	40.2	43.5	47.0	49.9	52.6	55.2	55.7	56.1
10 Inch	1.1	2.6	4.3	6.1	8.2	10.3	12.7	14.9	17.2	19.7	22.2	24.7	27.3	30.2	32.6	35.3	37.4	39.5	41.4	41.8	42.1

Barley–Drive Type 2

Based on 51 pounds per bushel

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Pounds per Acre																				
6 Inch	3.8	9.1	15.3	21.5	28.9	36.4	44.8	52.6	60.8	69.6	78.4	87.2	96.4	106.4	115.1	124.4	132.1	139.3	146.2	147.4	148.6
7.5 Inch	3.0	7.2	12.2	17.2	23.2	29.1	35.8	42.1	48.6	55.7	62.7	69.7	77.1	85.1	92.1	99.5	105.7	111.4	117.0	117.9	118.9
10 Inch	2.3	5.4	9.2	12.9	17.4	21.9	26.9	31.6	36.5	41.8	47.1	52.3	57.9	63.9	69.1	74.7	79.3	83.6	87.7	88.4	89.2

Barley–Drive Type 4

Based on 51 pounds per bushel

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Pounds per Acre																				
6 Inch	8.2	20.6	37.8	51.3	70.9	88.0	107.4	127.9	147.1	169.1	189.0	207.1	228.2	247.9	270.4	292.1	316.2	339.1	360.9	366.6	372.3
7.5 Inch	6.6	16.5	30.2	41.1	56.8	70.4	85.9	102.3	117.7	135.3	151.2	165.7	182.6	198.3	216.3	233.7	253.0	271.3	288.7	293.3	297.9
10 Inch	4.9	12.4	22.7	30.8	42.6	52.8	64.4	76.7	88.3	101.5	113.4	124.3	136.9	148.7	162.2	175.3	189.7	203.5	216.5	220.0	223.4

Buckwheat–Drive Type 3

Based on 48 pounds per bushel

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Pounds per Acre																				
6 Inch	0.0	10.9	20.3	28.5	40.4	50.5	62.8	75.3	89.3	103.2	119.0	131.1	145.3	159.8	173.5	188.9	202.2	216.5	244.1	233.7	236.2
7.5 Inch	0.0	8.7	16.2	22.8	32.4	40.4	50.2	60.2	71.4	82.6	95.2	104.9	116.3	127.9	138.8	151.1	161.8	173.2	195.3	187.0	189.0
10 Inch	0.0	6.5	12.2	17.1	24.3	30.3	37.7	45.2	53.6	61.9	71.4	78.7	87.2	95.9	104.1	113.3	121.3	129.9	146.4	140.2	141.7

Flax or Sudan–Drive Type 1

Based on 55 pounds per bushel

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Pounds per Acre																				
6 Inch	0.0	3.6	7.8	11.1	15.3	19.2	23.0	26.9	31.2	35.2	39.8	43.5	47.5	51.8	56.2	61.5	66.4	72.1	78.0	79.2	80.8
7.5 Inch	0.0	2.9	6.2	8.9	12.3	15.3	18.4	21.5	24.9	28.2	31.9	34.8	38.0	41.4	45.0	49.2	53.1	57.7	62.4	63.4	64.6
10 Inch	0.0	2.1	4.7	6.7	9.2	11.5	13.8	16.1	18.7	21.1	23.9	26.1	28.5	31.1	33.7	36.9	39.8	43.3	46.8	47.5	48.5

Millet–Drive Type 1

Based on 60 pounds per bushel

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Pounds per Acre																				
6 Inch	1.3	4.5	7.8	11.1	14.9	18.5	22.3	25.9	29.9	33.9	37.9	41.9	46.2	49.9	54.3	58.8	62.8	67.4	72.1	73.2	74.3
7.5 Inch	1.1	3.6	6.2	8.9	11.9	14.8	17.8	20.7	24.0	27.2	30.3	33.5	36.9	39.9	43.4	47.0	50.3	53.9	57.7	58.6	59.5
10 Inch	0.8	2.7	4.7	6.7	8.9	11.1	13.4	15.6	18.0	20.4	22.7	25.1	27.7	29.9	32.6	35.3	37.7	40.4	43.3	43.9	44.6

Milo–Drive Type 1

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Pounds per Acre																				
6 Inch	0.0	4.5	8.4	12.4	16.8	21.4	26.5	31.9	37.2	42.7	49.0	54.0	59.8	65.5	71.1	76.9	82.4	87.2	92.9	95.4	97.1
7.5 Inch	0.0	3.6	6.7	9.9	13.5	17.1	21.2	25.5	29.7	34.1	39.2	43.2	47.8	52.4	56.9	61.5	65.9	69.8	74.3	76.3	77.7
10 Inch	0.0	2.7	5.0	7.4	10.1	12.8	15.9	19.1	22.3	25.6	29.4	32.4	35.9	39.3	42.7	46.1	49.5	52.3	55.8	57.3	58.3

Oats–Drive Type 3

Based on 37 pounds per bushel

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Pounds per Acre																				
6 Inch	0.0	5.0	11.7	16.7	23.2	30.4	37.4	45.2	53.0	61.1	69.7	77.0	85.1	92.9	101.0	109.1	117.2	125.2	133.9	134.4	135.0
7.5 Inch	0.0	4.0	9.4	13.4	18.5	24.3	29.9	36.1	42.4	48.9	55.8	61.6	68.1	74.3	80.8	87.3	93.7	100.2	107.1	107.6	108.0
10 Inch	0.0	3.0	7.0	10.0	13.9	18.2	22.4	27.1	31.8	36.7	41.8	46.2	51.0	55.7	60.6	65.4	70.3	75.1	80.3	80.7	81.0

Peas–Drive Type 3

Based on 61 pounds per bushel

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Pounds per Acre																				
6 Inch	0.0	0.0	13.1	27.9	43.1	58.6	72.8	89.5	105.4	121.3	136.0	151.5	165.7	181.3	196.1	210.9	225.9	240.2	253.7	254.1	254.5
7.5 Inch	0.0	0.0	10.5	22.3	34.5	46.9	58.2	71.6	84.3	97.1	108.8	121.2	132.5	145.0	156.9	168.8	180.7	192.1	202.9	203.3	203.6
10 Inch	0.0	0.0	7.8	16.7	25.9	35.1	43.7	53.7	63.3	72.8	81.6	90.9	99.4	108.8	117.7	126.6	135.6	144.1	152.2	152.5	152.7

Pinto Beans–Drive Type 1

Based on 61 pounds per bushel

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Pounds per Acre																				
6 Inch	0.0	0.0	8.1	12.3	16.6	22.5	28.1	33.6	39.2	44.8	50.4	55.4	60.6	65.5	70.8	76.9	81.3	86.3	91.9	91.8	91.6
7.5 Inch	0.0	0.0	6.5	9.8	13.3	18.0	22.5	26.9	31.4	35.9	40.3	44.3	48.5	52.4	56.7	61.5	65.0	69.1	73.5	73.4	73.3
10 Inch	0.0	0.0	4.8	7.4	9.9	13.5	16.9	20.2	23.5	26.9	30.2	33.3	36.4	39.3	42.5	46.1	48.8	51.8	55.1	55.1	55.0

Rape–Drive Type 1

Based on 51 pounds per bushel

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Pounds per Acre																				
6 Inch	0.0	3.8	7.4	10.1	13.6	16.7	19.9	23.7	27.2	30.7	34.3	37.4	40.9	44.3	48.0	51.5	55.8	60.0	64.4	65.8	67.8
7.5 Inch	0.0	3.1	5.9	8.1	10.9	13.3	15.9	19.0	21.7	24.5	27.5	29.9	32.7	35.4	38.4	41.2	44.6	48.0	51.5	52.7	54.2
10 Inch	0.0	2.3	4.4	6.0	8.1	10.0	12.0	14.2	16.3	18.4	20.6	22.5	24.5	26.6	28.8	30.9	33.5	36.0	38.6	39.5	40.7

Long Grain Rice–Drive Type 3

Based on 47 pounds per bushel

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Pounds per Acre																				
6 Inch	0.0	0.0	12.7	20.9	30.5	40.4	50.9	59.1	68.3	78.1	86.7	94.8	102.9	111.6	121.1	130.2	139.5	148.1	155.6	161.5	167.1
7.5 Inch	0.0	0.0	10.2	16.7	24.4	32.4	40.8	47.3	54.7	62.5	69.4	75.9	82.3	89.3	96.8	104.1	111.6	118.5	124.4	129.2	133.7
10 Inch	0.0	0.0	7.6	12.3	18.3	24.3	30.6	35.5	41.0	46.9	52.0	56.9	61.8	66.9	72.6	78.1	83.7	88.9	93.3	96.9	100.2

Long Grain Rice–Drive Type 4

Based on 47 pounds per bushel

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Pounds per Acre																				
6 Inch	0.0	0.0	20.9	34.4	50.1	66.4	83.7	97.1	112.3	128.3	142.5	155.8	169.1	183.3	198.9	213.8	229.1	243.3	255.6	265.3	274.5
7.5 Inch	0.0	0.0	16.7	27.5	40.1	53.2	66.9	77.7	89.8	102.6	114.0	124.6	135.3	146.6	159.1	171.1	183.3	194.7	204.4	212.3	219.6
10 Inch	0.0	0.0	12.6	20.6	30.1	39.9	50.2	58.3	67.4	77.0	85.5	93.5	101.5	110.0	119.3	128.3	137.5	146.0	153.3	159.2	164.7

Short Grain Rice—Drive Type 3

Based on 43 pounds per bushel

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Pounds per Acre																				
6 Inch	2.8	10.6	17.4	27.3	37.0	44.1	53.6	61.4	70.8	80.9	92.4	103.2	113.2	123.6	133.9	143.0	151.2	159.5	168.2	168.2	168.2
7.5 Inch	2.2	8.5	13.9	21.9	29.6	35.3	42.9	49.1	56.7	64.7	73.9	82.6	90.6	98.9	107.1	114.4	120.9	127.6	134.6	134.6	134.6
10 Inch	1.7	6.4	10.5	16.4	22.2	26.4	32.2	36.8	42.5	48.5	55.4	61.9	67.9	74.1	80.3	85.8	90.7	95.7	100.9	100.9	100.9

Short Grain Rice—Drive Type 4

Based on 43 pounds per bushel

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Pounds per Acre																				
6 Inch	4.6	17.4	28.6	44.9	60.9	72.4	88.1	100.8	116.4	132.9	151.8	169.6	186.0	203.0	220.0	234.9	248.4	262.1	276.4	276.3	276.4
7.5 Inch	3.7	13.9	22.9	35.9	48.7	57.9	70.5	80.7	93.1	106.3	121.4	135.6	148.8	162.4	176.0	187.9	198.7	209.7	221.1	221.1	221.1
10 Inch	2.7	10.4	17.2	26.9	36.5	43.4	52.8	60.5	69.8	79.7	91.1	101.7	111.6	121.8	132.0	140.9	149.0	157.3	165.8	165.8	165.8

Rye—Drive Type 1

Based on 57 pounds per bushel

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Pounds per Acre																				
6 Inch	0.0	2.7	7.5	12.0	17.6	22.8	26.7	33.0	38.8	44.7	50.4	55.2	59.9	65.0	70.2	76.6	82.3	89.0	96.1	96.8	97.1
7.5 Inch	0.0	2.1	6.0	9.6	14.1	18.2	21.3	26.4	31.0	35.8	40.3	44.1	47.9	52.0	56.2	61.3	65.9	71.2	76.9	77.4	77.7
10 Inch	0.0	1.6	4.5	7.2	10.5	13.7	16.0	19.8	23.3	26.8	30.2	33.1	35.9	39.0	42.1	45.9	49.4	53.4	57.7	58.1	58.3

Soybeans—Drive Type 2

Based on 58 pounds per bushel

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Pounds per Acre																				
6 Inch	0.0	5.7	15.7	26.4	38.9	46.6	57.7	67.9	78.9	90.0	99.6	111.7	122.8	133.4	144.0	155.1	164.2	175.1	186.4	187.4	187.9
7.5 Inch	0.0	4.5	12.5	21.1	31.1	37.3	46.2	54.3	63.1	72.0	79.7	89.4	98.3	106.7	115.2	124.1	131.3	140.1	149.1	149.9	150.3
10 Inch	0.0	3.4	9.4	15.9	23.3	28.0	34.6	40.8	47.3	54.0	59.8	67.0	73.7	80.0	86.4	93.1	98.5	105.1	111.9	112.4	112.8

Soybeans—Drive Type 3

Based on 58 pounds per bushel

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Pounds per Acre																				
6 Inch	0.0	11.2	21.8	39.1	57.5	68.3	85.9	97.6	112.4	126.9	143.1	158.4	174.6	189.7	206.4	219.8	239.9	256.3	274.2	274.5	274.7
7.5 Inch	0.0	8.9	17.4	31.2	46.0	54.7	68.7	78.1	89.9	101.5	114.5	126.7	139.7	151.7	165.1	175.8	191.9	205.1	219.4	219.6	219.8
10 Inch	0.0	6.7	13.1	23.4	34.5	41.0	51.5	58.6	67.4	76.1	85.9	95.1	104.8	113.8	123.8	131.9	143.9	153.8	164.5	164.7	164.8

Soybeans—Drive Type 4

Based on 58 pounds per bushel

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Pounds per Acre																				
6 Inch	0.0	18.3	35.7	64.2	94.4	112.3	141.1	160.4	184.7	208.5	235.1	260.3	286.9	311.6	339.1	361.1	394.1	421.1	450.5	450.9	451.4
7.5 Inch	0.0	14.7	28.6	51.3	75.5	89.8	112.9	128.3	147.7	166.8	188.1	208.2	229.5	249.3	271.3	288.9	315.3	336.9	360.4	360.7	361.1
10 Inch	0.0	11.0	21.4	38.5	56.6	67.4	84.7	96.2	110.8	125.1	141.0	156.2	172.1	187.0	203.5	216.7	236.5	252.7	270.3	270.5	270.8

Sunflowers—Drive Type 1

Based on 28 pounds per bushel

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Pounds per Acre																				
6 Inch	0.0	0.0	1.9	4.0	5.8	7.9	10.2	12.3	14.6	16.9	19.2	21.4	23.7	26.0	28.2	30.4	32.4	34.3	36.5	37.5	38.7
7.5 Inch	0.0	0.0	1.6	3.2	4.7	6.3	8.1	9.8	11.7	13.5	15.4	17.1	19.0	20.8	22.6	24.3	25.9	27.4	29.2	30.0	31.0
10 Inch	0.0	0.0	1.2	2.4	3.5	4.8	6.1	7.4	8.8	10.2	11.5	12.8	14.2	15.6	16.9	18.2	19.5	20.6	21.9	22.5	23.2

Hard Wheat–Drive Type 2

Based on 64 pounds per bushel

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
6 Inch	0.0	15.1	24.6	34.7	45.1	56.1	67.5	79.4	91.6	104.4	117.5	131.0	145.0	159.3	174.0	189.1	204.6	220.5	236.7	253.2	270.1
7.5 Inch	0.0	12.1	19.7	27.7	36.1	44.9	54.0	63.5	73.3	83.5	94.0	104.8	116.0	127.4	139.2	151.3	163.7	176.4	189.3	202.6	216.1
10 Inch	0.0	9.0	14.8	20.8	27.1	33.7	40.5	47.6	55.0	62.6	70.5	78.6	87.0	96.6	104.4	113.5	122.8	132.3	142.0	151.9	162.0

Hard Wheat–Drive Type 3

Based on 64 pounds per bushel

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
6 Inch	0.0	19.2	34.6	51.4	69.3	88.3	108.2	128.8	150.1	171.8	193.9	216.1	238.4	260.6	282.6	304.2	325.3	345.8	365.4	384.1	401.7
7.5 Inch	0.0	15.3	27.7	41.1	55.5	70.6	86.6	103.1	120.1	137.4	155.1	172.9	190.7	208.5	226.1	243.4	260.3	276.6	292.3	307.3	321.4
10 Inch	0.0	11.5	20.8	30.8	41.6	53.0	64.9	77.3	90.0	103.1	116.3	129.7	143.7	156.4	169.6	182.5	195.2	207.5	219.2	230.5	241.0

Soft Wheat–Drive Type 2

Based on 58 pounds per bushel

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
6 Inch	0.0	7.9	15.3	23.0	32.3	41.5	51.2	62.3	73.2	84.7	96.3	107.7	118.5	129.6	141.5	152.7	164.5	175.9	185.7	185.9	186.0
7.5 Inch	0.0	6.3	12.2	18.4	25.9	33.2	40.9	49.8	58.6	67.8	77.0	86.2	94.8	103.7	113.2	122.2	131.6	140.7	148.6	148.7	148.8
10 Inch	0.0	4.8	9.2	13.8	19.4	24.9	30.7	37.4	43.9	50.8	57.8	64.6	71.1	77.8	84.9	91.6	98.7	105.5	111.4	111.5	111.6

Soft Wheat–Drive Type 3

Based on 58 pounds per bushel

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
6 Inch	1.4	11.4	22.1	32.9	44.2	57.2	72.9	87.3	103.8	120.2	137.4	155.6	172.7	190.0	207.2	224.0	242.7	260.8	274.1	282.8	288.1
7.5 Inch	1.1	9.1	17.7	26.3	35.3	45.7	58.3	69.8	83.0	96.2	109.9	124.5	138.1	152.0	165.8	179.2	194.1	208.6	219.3	226.3	230.5
10 Inch	0.8	6.9	13.3	19.7	26.5	34.3	43.7	52.4	62.3	72.1	82.5	93.4	103.6	114.0	124.3	134.4	145.6	156.5	164.5	169.7	172.9

Wheat Grass–Drive Type 1

Based on 23 pounds per bushel

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
6 Inch	0.0	0.9	2.0	2.9	4.0	4.9	5.7	7.0	8.0	9.2	10.3	11.3	12.5	13.5	14.7	16.0	17.0	18.4	17.6	19.8	20.1
7.5 Inch	0.0	0.7	1.6	2.3	3.2	3.9	4.6	5.6	6.4	7.3	8.2	9.1	10.0	10.8	11.8	12.8	13.6	14.7	14.1	15.8	16.1
10 Inch	0.0	0.5	1.2	1.7	2.4	2.9	3.4	4.2	4.8	5.5	6.2	6.8	7.5	8.1	8.8	9.6	10.2	11.0	10.6	11.9	12.0

Small Seeds Attachment

To set and calibrate the seeding rate on the optional small-seeds attachment, follow these steps.

Refer to *Figure 6*

1. Set the seed-rate handle on the small-seeds attachment as indicated by the *Small Seeds Rate Chart*, page 9.
2. Calibrate the small seeds attachment to your material by following the steps under *Checking the Seeding Rate*, page 3.

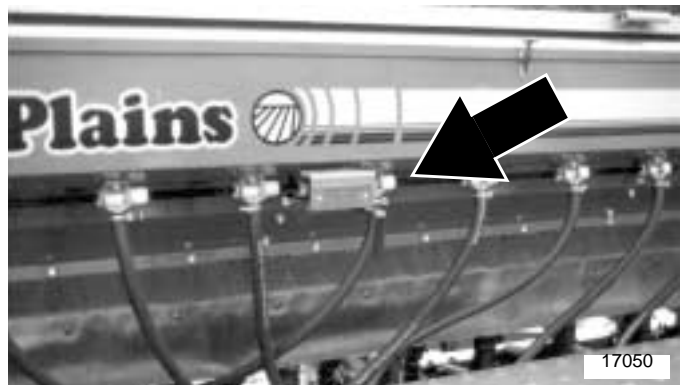


Figure 6
Seed Rate Handle, Small Seeds Attachment

Small Seeds Rate Chart

Setting Number	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100		
Kentucky Blue Grass, Fescue, Annual Rye Grass	Row Spacing	6"	0	.2	1.2	1.9	2.7	3.3	4.1	4.6	5.2	5.8	6.3	6.8	7.3	7.8	8.3	8.8	9.2	9.7	10.0	10.5
	7"	0	.2	1.0	1.6	2.3	2.8	3.5	4.0	4.5	5.0	5.4	5.9	6.3	6.7	7.1	7.5	7.9	8.0	8.6	9.0	
	7.5"	0	.2	.9	1.5	2.2	2.7	3.3	3.7	4.2	4.6	5.1	5.5	5.9	6.3	6.7	7.0	7.4	7.7	8.1	8.4	
	8"	0	.2	.9	1.4	2.0	2.5	3.0	3.5	3.9	4.3	4.8	5.1	5.5	5.9	6.2	6.6	6.9	7.5	7.5	7.9	
	10"	0	.1	.7	1.1	1.6	2.0	2.4	2.7	3.1	3.4	3.7	4.0	4.3	4.6	4.9	5.2	5.4	5.7	5.9	6.2	
Ladino Clover, Canary Grass, Timothy, Canola	Row Spacing	6"	0	1.1	2.1	3.3	4.7	6.1	7.6	9.2	10.7	12.2	13.8	15.5	17.0	18.5	20.3	21.7	23.4	25.4	27.3	29.2
	7"	0	.9	1.7	2.8	4.1	5.2	6.6	7.9	9.2	10.5	11.8	13.3	14.6	15.9	17.4	18.7	20.0	22.0	23.4	25.1	
	7.5"	0	.9	1.6	2.6	3.9	4.9	6.1	7.4	8.6	9.8	11.1	12.5	13.7	14.9	16.3	17.6	18.8	20.4	21.9	23.5	
	8"	0	.8	1.5	2.5	3.6	4.6	5.7	6.9	8.0	9.2	10.3	11.6	12.8	13.9	15.2	16.4	17.5	19.0	20.5	21.9	
	10"	0	.6	1.5	1.9	2.5	3.6	4.5	5.4	6.3	7.2	8.1	9.1	10.0	10.9	12.0	12.9	13.8	14.9	16.1	17.2	
Bermuda, Red Top, Unhulled Lespedeza, Sericia, Sand & Weeping Love Grass	Row Spacing	6"	0	.7	1.1	1.7	2.6	3.3	4.1	5.0	5.9	6.6	7.2	7.8	8.4	9.0	9.5	10.2	10.9	11.6	12.2	12.9
	7"	0	.6	.9	1.5	2.2	2.8	3.6	4.3	5.1	5.6	6.2	6.7	7.1	7.7	8.1	8.7	9.4	10.0	10.5	11.0	
	7.5"	0	.5	.9	1.4	2.1	2.6	3.3	4.0	4.7	5.3	5.8	6.3	6.7	7.2	7.6	8.2	8.8	9.3	9.8	10.4	
	8"	0	.5	.8	1.3	2.0	2.5	3.1	3.8	4.4	4.9	5.4	5.9	6.5	6.7	7.1	7.6	8.2	8.7	9.2	9.7	
	10"	0	.4	.6	1.0	1.5	1.9	2.4	3.0	3.5	3.9	4.2	4.6	4.9	5.3	5.6	6.0	6.4	6.8	7.2	7.6	
Red & Sweet Clover, Lespedeza Hulled	Row Spacing	6"	0	1.5	3.4	5.2	7.1	9.0	11.3	13.2	15.3	17.0	19.0	20.8	22.5	24.5	26.4	28.3	30.1	32.1	33.8	35.6
	7"	0	1.3	2.9	4.5	6.1	7.7	9.7	11.3	13.1	14.6	16.3	17.8	19.3	21.0	22.7	24.6	25.8	27.5	29.0	30.5	
	7.5"	0	1.2	2.7	4.2	5.7	7.2	9.1	10.6	12.3	13.7	15.3	16.7	18.1	19.7	21.2	22.7	24.2	25.8	27.2	28.6	
	8"	0	1.1	2.5	3.9	5.3	6.7	8.5	9.9	11.5	12.8	14.3	15.6	16.9	18.3	19.8	21.2	22.6	24.1	25.4	26.7	
	10"	0	.9	2.0	3.1	4.2	5.3	6.7	7.8	9.0	10.0	11.2	12.2	13.3	14.4	15.6	16.6	17.8	18.9	19.9	20.9	
Bird's-foot Trefoil, Sudan	Row Spacing	6"	0	1.7	3.3	5.2	6.8	8.7	10.7	12.7	14.7	16.8	19.2	21.2	23.4	25.6	28.0	29.9	32.1	34.2	36.3	38.4
	7"	0	1.5	2.8	4.5	5.8	7.5	9.2	10.9	12.5	14.4	16.5	18.2	20.0	21.9	24.0	25.6	27.5	29.0	31.1	32.9	
	7.5"	0	1.4	2.6	4.2	5.4	7.0	8.6	10.2	11.9	13.5	15.4	17.0	18.8	20.5	22.5	24.0	25.8	27.6	29.1	30.9	
	8"	0	1.3	2.5	3.9	5.1	6.6	8.1	9.5	11.0	12.6	14.4	15.9	17.5	19.2	21.0	22.4	24.1	25.7	27.2	28.8	
	10"	0	1.0	1.9	3.1	4.0	5.1	6.3	7.5	8.6	9.9	11.3	12.5	13.8	15.1	16.5	17.6	18.9	20.2	21.4	22.7	
Orchard Grass	Row Spacing	6"	0	0	.3	.7	.9	1.3	1.5	2.0	2.4	2.8	3.3	3.5	3.9	4.4	4.8	5.0	5.5	5.7	6.1	6.3
	7"	0	0	.2	.6	.7	1.1	1.3	1.7	2.1	2.4	2.8	3.0	3.4	3.7	4.1	4.3	4.7	5.0	5.2	5.4	
	7.5"	0	0	.2	.5	.7	1.1	1.2	1.6	1.9	2.3	2.6	2.8	3.2	3.5	3.9	4.0	4.4	4.6	4.9	5.1	
	8"	0	0	.2	.5	.7	1.0	1.1	1.5	1.8	2.1	2.5	2.6	2.9	3.3	3.6	3.8	4.1	4.3	4.6	4.8	
	10"	0	0	.1	.4	.5	.8	.9	1.2	1.4	1.7	1.9	2.1	2.3	2.6	2.8	3.0	3.2	3.3	3.6	3.7	
Millet, Reed Canary	Row Spacing	6"	.4	1.4	2.4	3.5	4.4	5.5	6.5	7.5	8.5	9.5	10.5	11.5	12.5	13.6	14.6	15.6	16.6	17.6	18.5	19.0
	7"	.4	1.2	2.1	3.0	3.8	4.7	5.6	6.4	7.3	8.1	9.0	9.9	10.7	11.6	12.5	13.3	14.2	15.1	15.9	16.1	
	7.5"	.3	1.2	2.0	2.8	3.6	4.4	5.2	6.0	6.8	7.6	8.4	9.3	10.1	10.9	11.7	12.5	13.3	14.1	14.9	15.1	
	8"	.3	1.1	1.8	2.6	3.3	4.1	4.9	5.6	6.4	7.1	7.9	8.6	9.4	10.2	10.9	11.7	12.4	13.2	13.9	14.1	
	10"	.3	.8	1.4	2.0	2.6	3.2	3.8	4.4	5.0	5.6	6.2	6.8	7.4	8.0	8.6	9.2	9.8	10.4	10.9	11.5	
Alfalfa, Red Alsike, Crimson Clover	Row Spacing	6"	0	2.2	3.5	4.8	6.0	7.5	8.7	9.8	11.2	12.5	13.8	15.1	16.4	17.5	18.6	20.2	21.4	22.9	24.0	25.2
	7"	0	1.9	3.0	4.1	5.1	6.4	7.5	8.4	9.5	10.8	11.8	12.9	14.0	15.0	16.3	17.3	18.3	20.0	20.6	21.6	
	7.5"	0	1.8	2.8	3.9	4.8	6.0	7.0	7.9	9.0	10.0	11.1	12.1	13.2	14.0	15.3	16.2	17.2	18.3	19.3	20.3	
	8"	0	1.6	2.6	3.6	4.5	5.6	6.6	7.4	8.4	9.4	10.3	11.3	12.3	13.1	13.0	15.2	16.1	17.1	18.0	18.9	
	10"	0	1.3	2.1	2.8	3.5	4.4	5.1	5.8	6.6	7.4	8.1	8.9	9.7	10.3	11.2	11.9	12.6	13.4	14.2	14.9	

Setting Fertilizer Rate

The 1300F has chain drives powered off the drive end wheel to meter fertilizer. Adjust the application rate by changing the drive sprockets.

Fertilizer application rates will vary with fertilizer type, density and particle size. Relative humidity and field conditions can also affect application rates. Initially set the rate according to the charts, then calibrate the drill to your material as described under *Fertilizer Rate Calibration* on this page.

1. Refer to the fertilizer rate charts on page 12 to find sprocket sizes for your drill and desired meter rate.

IMPORTANT: The fertilizer meter rate charts are for granular fertilizer with a density of 65 pounds per cubic foot. If you are applying fertilizer with a different density, use the density conversion chart on page 12.

Refer to *Figure 7*

2. To switch between high and low range, loosen and slide the idler sprockets (1) out of the chain. Remove the chain.
 - For high range, use the 16-tooth sprocket (2) and shorten the chain by removing the 13-pitch strand.
 - For low range, use the 44-tooth sprocket (3) and lengthen the chain by installing the 13-pitch strand.
- Loosen set screw on jackshaft sprocket (4). Align sprockets and idlers. Retighten set screw. Re-install chain and move idlers into chain.

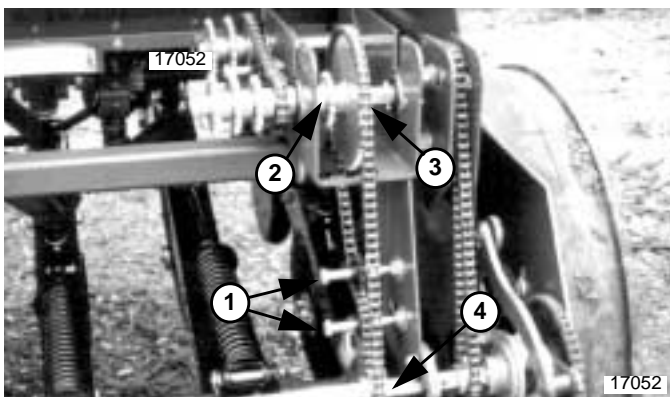


Figure 7
Hi/Low Range Sprocket

Refer to *Figure 8*

3. To change the driver-to-driven ratio loosen and slide idler sprockets out of chain. Remove the lynch pins from the shafts and rearrange sprockets as necessary. Re-install chain and slide idlers into chain so chain has 1/4-inch slack.

NOTE: Place the driver and driven sprockets next to the shaft bearings. Use the end of the shafts to store unused sprockets.

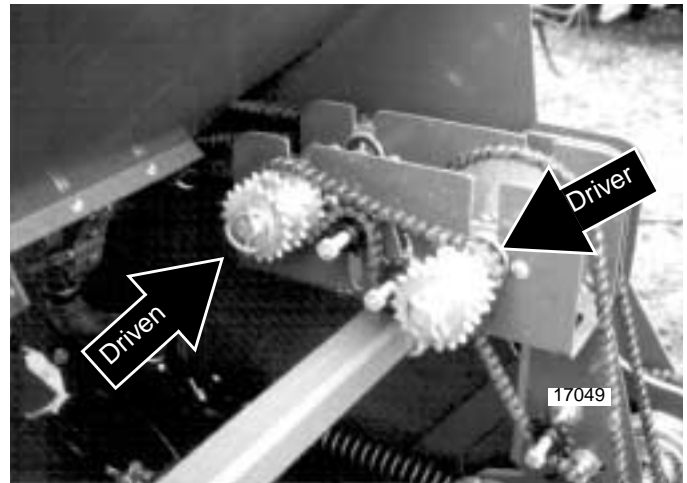


Figure 8
Driver and Driven Sprockets

Fertilizer Rate Calibration

1. Place several pounds of fertilizer over three of the fertilizer feed cups at the outboard end of the drill box.
2. Disengage the lock-out hub on the drive wheel.
3. Pull the fertilizer tubes out of these three disk openers and place them into a container under the fertilizer tubes to gather the fertilizer while metering.



Figure 9
Calibration Crank

Refer to *Figure 9*

4. Place the calibration crank on the main jack shaft on the left hand side of the drill and turn it counterclockwise the number of turns noted below which would equal one acre. (Variances are due to total swath width.) This will be:

Row spacings:	6"	7 1/2"	10"
Rotations	134	133	131

Check to be sure each cup has plenty of fertilizer coming into it.

5. Weigh the fertilizer which has been metered. Divide by three. This will give you the ounces/pound metered by each fertilizer feed cup. Multiply by the number of openers on your drill to arrive at the total pounds-per-acre your drill would meter at that setting. If this figure is different than desired, set your fertilizer feed cup adjustment lever accordingly.
6. You may want to repeat the calibration procedure if the results of your calibration vary greatly from the suggested settings.

Refer to Figure 10

Be sure to return calibration crank to the storage position and secure with lock pin upon completion of calibration.

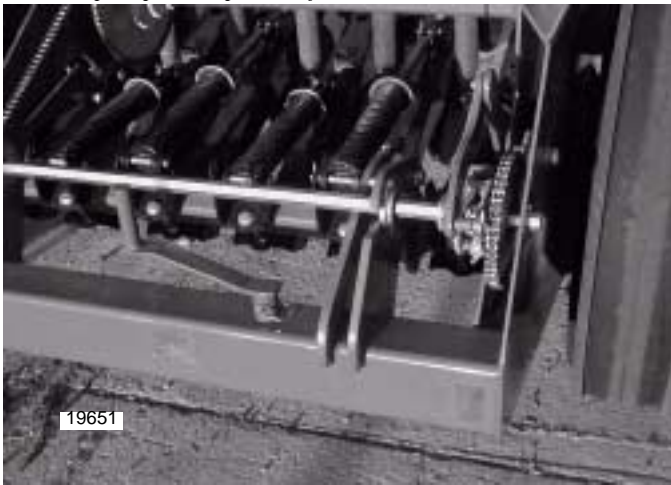


Figure 10
Storage Position

Fertilizer Meter Rate Charts

Based on 65 pounds-per-cubic-foot density

Meter Rate lb. per acre	Sprockets, 6-Inch Rows		
	Range	Driver	Driven
42	Low	12 T	21 T
44	Low	12 T	20 T
47	Low	12 T	19 T
49	Low	12 T	18 T
52	Low	12 T	17 T
55	Low	12 T	16 T
60	Low	17 T	21 T
63	Low	17 T	20 T
66	Low	17 T	19 T
70	Low	20 T	21 T
78	Low	21 T	20 T
82	Low	21 T	19 T
86	Low	21 T	18 T
91	Low	21 T	17 T
97	Low	21 T	16 T
105	Low	17 T	12 T
111	Low	18 T	12 T
116	High	12 T	21 T
117	Low	19 T	12 T
122	High	12 T	20 T
123	Low	20 T	12 T
128	High	12 T	19 T
130	Low	21 T	12 T
135	High	12 T	18 T
143	High	12 T	17 T
164	High	17 T	21 T
172	High	17 T	20 T
181	High	17 T	19 T
193	High	20 T	21 T
213	High	21 T	20 T
224	High	21 T	19 T
236	High	21 T	18 T
250	High	21 T	17 T
287	High	17 T	12 T
303	High	18 T	12 T
320	High	19 T	12 T
337	High	20 T	12 T
353	High	21 T	12 T

Meter Rate lb. per acre	Sprockets, 7 1/2-Inch Rows		
	Range	Driver	Driven
34	Low	12 T	21 T
36	Low	12 T	20 T
37	Low	12 T	19 T
39	Low	12 T	18 T
42	Low	12 T	17 T
44	Low	12 T	16 T
48	Low	17 T	21 T
50	Low	17 T	20 T
53	Low	17 T	19 T
56	Low	20 T	21 T
62	Low	21 T	20 T
65	Low	21 T	19 T
69	Low	21 T	18 T
73	Low	21 T	17 T
78	Low	21 T	16 T
84	Low	17 T	12 T
89	Low	18 T	12 T
93	High	12 T	21 T
94	Low	19 T	12 T
97	High	12 T	20 T
98	Low	20 T	12 T
103	Low	21 T	12 T
103	High	12 T	19 T
108	High	12 T	18 T
115	High	12 T	17 T
131	High	17 T	21 T
138	High	17 T	20 T
145	High	17 T	19 T
154	High	20 T	21 T
170	High	21 T	20 T
179	High	21 T	19 T
189	High	21 T	18 T
200	High	21 T	17 T
230	High	17 T	12 T
243	High	18 T	12 T
256	High	19 T	12 T
269	High	20 T	12 T
283	High	21 T	12 T

Meter Rate lb per acre	Sprockets, 10-Inch Rows		
	Range	Driver	Driven
25	Low	12 T	21 T
27	Low	12 T	20 T
28	Low	12 T	19 T
30	Low	12 T	18 T
31	Low	12 T	17 T
33	Low	12 T	16 T
36	Low	17 T	21 T
38	Low	17 T	20 T
40	Low	17 T	19 T
42	Low	20 T	21 T
47	Low	21 T	20 T
49	Low	21 T	19 T
52	Low	21 T	18 T
55	Low	21 T	17 T
58	Low	21 T	16 T
63	Low	17 T	12 T
66	Low	18 T	12 T
70	Low	19 T	12 T
70	High	12 T	21 T
73	High	12 T	20 T
74	Low	20 T	12 T
77	High	12 T	19 T
78	Low	21 T	12 T
81	High	12 T	18 T
86	High	12 T	17 T
99	High	17 T	21 T
103	High	17 T	20 T
109	High	17 T	19 T
116	High	20 T	21 T
128	High	21 T	20 T
134	High	21 T	19 T
142	High	21 T	18 T
150	High	21 T	17 T
172	High	17 T	12 T
182	High	18 T	12 T
192	High	19 T	12 T
202	High	20 T	12 T
212	High	21 T	12 T

Density Conversion Chart

The fertilizer meter rate charts are based on fertilizer with a density of 65 pounds per cubic foot. If you are applying fertilizer of a different density, use the following table to convert the application rate.

Density	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00
Conversion Factor	1.45	1.30	1.20	1.10	1.00	0.93	0.87	0.81

Example: Your fertilizer has a density of 75 pounds per cubic foot, and you want to apply 100 pounds per acre. Multiply the desired application rate by the conversion factor.

$$100 \times 0.87 = 87$$

Adjust drill to the setting closest to 87 pounds per acre.

Seed Rate Charts for Metric Measurement

Alfalfa–Drive Type 1

Based on .77 kg/liter

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Kilograms per Hectare																				
15.2cm	2.2	5.9	8.9	12.8	16.4	20.4	24.3	28.9	33.5	39.1	43.7	47.9	52.9	57.8	62.9	67.4	73.3	78.8	84.6	87.1	89.6
19.1cm	1.8	4.7	7.1	10.2	13.1	16.3	19.5	23.2	26.9	31.3	35.0	38.2	42.4	46.3	50.3	53.9	58.6	63.0	67.7	69.7	71.6
25.4cm	1.3	3.6	5.4	7.6	9.9	12.2	14.6	17.4	20.2	23.5	26.2	28.7	31.7	34.7	37.8	40.5	43.9	47.3	50.8	52.2	53.7

Barley–Drive Type 1

Based on .66 kg/liter

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Kilograms per Hectare																				
15.2cm	2.0	4.8	8.1	11.4	15.4	19.3	23.6	27.9	32.2	36.9	41.5	46.2	51.0	56.4	61.0	65.9	69.9	73.8	77.4	78.0	78.7
19.1cm	1.6	3.8	6.5	9.1	12.2	15.5	18.9	22.3	25.8	29.5	33.2	36.9	40.8	45.1	48.8	52.7	55.9	59.0	61.9	62.4	62.9
25.4cm	1.2	2.9	4.8	8.8	9.2	11.5	14.2	16.7	19.3	22.1	24.9	27.7	30.6	33.8	36.5	39.6	41.9	44.3	46.4	46.9	47.2

Barley–Drive Type 2

Based on .66 kg/liter

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Kilograms per Hectare																				
15.2cm	4.3	10.2	17.1	24.1	32.4	40.8	50.2	59.0	88.1	78.0	87.9	97.7	108.0	119.3	129.0	139.4	148.1	156.1	163.9	165.2	166.6
19.1cm	3.4	8.1	13.7	19.3	26.0	32.6	40.1	47.2	54.5	62.4	70.3	78.1	86.4	95.4	103.2	111.5	118.5	124.9	131.1	132.1	133.3
25.4cm	2.6	6.1	10.3	14.5	19.5	24.5	30.2	35.4	40.9	46.9	52.8	58.8	64.9	71.6	77.4	83.7	88.9	93.7	98.3	99.1	100.0

Barley–Drive Type 4

Based on .66 kg/liter

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Kilograms per Hectare																				
15.2cm	9.2	23.1	42.4	57.5	79.5	98.6	120.4	143.4	164.9	189.5	211.8	232.1	255.8	277.9	303.1	327.4	354.4	380.1	404.5	410.9	417.3
19.1cm	7.4	18.5	33.8	46.1	63.7	78.9	96.3	114.7	131.9	151.6	169.5	185.7	204.7	222.3	242.4	261.9	283.6	304.1	323.6	328.7	333.9
25.4cm	5.5	13.9	25.4	34.5	47.7	59.2	72.2	86.0	99.0	113.8	127.1	139.3	153.4	166.7	181.8	196.5	212.6	228.1	242.7	246.6	250.4

Buckwheat–Drive Type 3

Based on .62 kg/liter

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Kilograms per Hectare																				
15.2cm	0.0	12.2	22.8	31.9	45.3	56.6	70.4	84.4	100.1	115.7	133.4	146.9	162.9	179.1	194.5	211.7	226.6	242.7	273.6	261.9	264.7
19.1cm	0.0	9.8	18.2	25.6	36.3	45.3	56.3	67.5	80.0	92.6	106.7	117.6	130.4	143.4	155.6	169.4	181.4	194.1	218.9	209.6	211.8
25.4cm	0.0	7.3	13.7	19.2	27.2	34.0	42.3	50.7	60.1	69.4	80.0	88.2	97.7	107.5	116.7	127.0	136.0	145.6	164.1	157.1	158.8

Flax or Sudan–Drive Type 1

Based on .71 kg/liter

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Kilograms per Hectare																				
15.2cm	0.0	4.0	8.7	12.4	17.1	21.5	25.8	30.2	35.0	39.5	44.6	48.8	53.2	58.1	63.0	68.9	74.4	80.8	87.4	88.8	90.6
19.1cm	0.0	3.3	6.9	10.0	13.8	17.1	20.6	24.1	27.9	31.6	35.8	39.0	42.6	46.4	50.4	55.1	59.5	64.7	69.9	71.1	72.4
25.4cm	0.0	2.4	5.3	7.5	10.3	12.9	15.5	18.0	21.0	23.6	26.8	29.3	31.9	34.9	37.8	41.4	44.6	48.5	52.5	53.2	54.4

Millet–Drive Type 1

Based on .77 kg/liter

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Kilograms per Hectare																				
15.2cm	1.5	5.0	8.7	12.4	16.7	20.7	25.0	29.0	33.5	38.0	42.5	47.0	51.8	55.9	60.9	65.9	70.4	75.5	80.8	82.0	83.3
19.1cm	1.2	4.0	6.9	10.0	13.3	16.6	20.0	23.2	26.9	30.5	34.0	37.5	41.4	44.7	48.6	52.7	56.4	60.4	64.7	65.7	66.7
25.4cm	0.9	3.0	5.3	7.5	10.0	12.4	15.0	17.5	20.2	22.9	25.4	28.1	31.0	33.5	36.5	39.6	42.3	45.3	48.5	49.2	50.0

Milo–Drive Type 1

Based on .82 kg/liter

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Kilograms per Hectare																				
15.2cm	0.0	5.0	9.4	13.9	18.8	24.0	29.7	35.8	41.7	47.9	54.9	60.5	67.0	73.4	79.7	86.2	92.4	97.7	104.1	106.9	108.8
19.1cm	0.0	4.0	7.5	11.1	15.1	19.2	23.8	28.6	33.3	38.2	43.9	48.4	53.6	58.7	63.8	68.9	73.9	78.2	83.3	85.5	87.1
25.4cm	0.0	3.0	5.6	8.3	11.3	14.3	17.8	21.4	25.0	28.7	33.0	36.3	40.2	44.0	47.9	51.7	55.5	58.6	62.5	64.2	65.3

Oats–Drive Type 3

Based on .48 kg/liter

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Kilograms per Hectare																				
15.2cm	0.0	5.6	13.1	18.7	26.0	34.1	41.9	50.7	59.4	68.5	78.1	86.3	95.4	104.1	113.2	122.3	131.4	140.3	150.1	150.6	151.3
19.1cm	0.0	4.5	10.5	15.0	20.7	27.2	33.5	40.5	47.5	54.8	62.5	69.0	76.3	83.3	90.6	97.8	105.0	112.3	120.0	120.6	121.1
25.4cm	0.0	3.4	7.8	11.2	15.6	20.4	25.1	30.4	35.6	41.1	46.9	51.8	57.2	62.4	67.9	73.3	78.8	84.2	90.0	90.5	90.8

Peas–Drive Type 3

Based on .79 kg/liter

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Kilograms per Hectare																				
15.2cm	0.0	0.0	14.7	31.3	48.3	65.7	81.6	100.3	118.1	136.0	152.4	169.8	185.7	203.2	219.8	236.4	253.2	269.2	284.4	284.8	285.3
19.1cm	0.0	0.0	11.8	25.0	38.7	52.6	65.2	80.3	94.5	108.8	121.9	135.8	148.5	162.5	175.9	189.2	202.5	215.3	227.4	227.9	228.2
25.4cm	0.0	0.0	8.7	18.7	29.0	39.3	49.0	60.2	70.9	81.6	91.5	101.9	111.4	121.9	131.9	141.9	152.0	161.5	170.6	170.9	171.2

Pinto Beans–Drive Type 1

Based on .79 kg/liter

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Kilograms per Hectare																				
15.2cm	0.0	0.0	9.1	13.8	18.6	25.2	31.5	37.7	43.9	50.2	56.5	62.1	67.9	73.4	79.4	86.2	91.1	96.7	103.0	102.9	102.7
19.1cm	0.0	0.0	7.3	11.0	14.9	20.2	25.2	30.2	35.2	40.2	45.2	49.7	54.4	58.7	63.6	68.9	72.9	77.4	82.4	82.3	82.2
25.4cm	0.0	0.0	5.4	8.3	11.0	15.1	18.9	22.6	26.3	30.2	33.8	37.3	40.8	44.0	47.6	51.7	54.7	58.1	61.8	61.8	61.8

Rape–Drive Type 1

Based on .77 kg/liter

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Kilograms per Hectare																				
15.2cm	0.0	4.3	8.3	11.3	15.2	18.7	22.3	26.6	30.5	34.4	38.4	41.9	45.8	49.7	53.8	57.7	62.5	67.3	72.2	73.8	76.0
19.1cm	0.0	3.5	6.6	9.1	12.2	14.9	17.8	21.3	24.3	27.5	30.8	33.5	36.7	39.7	43.0	46.2	50.0	53.8	57.7	59.1	60.7
25.4cm	0.0	2.6	4.9	6.7	9.1	11.2	13.5	15.9	18.3	20.6	23.1	25.2	27.5	29.8	32.3	34.6	37.5	40.4	43.3	44.3	45.6

Long Grain Rice–Drive Type 3

Based on .60 kg/liter

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Kilograms per Hectare																				
15.2cm	0.0	0.0	14.2	23.4	34.2	45.3	57.1	66.2	76.6	87.5	97.2	106.3	115.3	125.1	135.7	145.9	156.4	166.0	174.4	181.0	187.3
19.1cm	0.0	0.0	11.4	18.7	27.3	36.3	45.7	53.0	61.3	70.1	77.8	85.1	92.2	100.1	108.5	116.7	125.1	132.8	139.4	144.8	149.9
25.4cm	0.0	0.0	8.5	13.8	20.5	27.2	34.3	39.8	46.0	52.6	58.3	63.8	69.3	75.0	81.4	87.5	93.8	99.6	104.6	108.6	112.3

Long Grain Rice–Drive Type 4

Based on .60 kg/liter

Row Space	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Kilograms per Hectare																				
15.2cm	0.0	0.0	23.4	38.6	56.2	74.4	93.8	108.8	125.9	143.8	159.7	174.6	189.5	205.4	222.9	239.6	256.8	272.7	286.5	297.4	307.7
19.1cm	0.0	0.0	18.7	30.8	44.9	59.6	75.0	87.1	100.8	115.0	127.8	139.7	151.6	164.3	178.3	191.8	205.4	218.2	229.1	238.0	246.1
25.4cm	0.0	0.0	14.1	23.1	33.7	44.7	56.3	65.3	75.5	86.3	95.8	104.8	113.8	123.3	133.7	143.8	154.1	163.6	171.8	178.4	184.6

Short Grain Rice—Drive Type 3

Based on .55 kg/liter

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Kilograms per Hectare																				
15.2cm	3.1	11.9	19.5	30.6	41.5	49.4	60.1	68.8	79.4	90.7	103.6	115.7	126.9	138.5	150.1	160.3	169.5	178.8	188.5	188.5	188.5
19.1cm	2.5	9.5	15.6	24.5	33.2	39.6	48.1	55.0	63.3	72.5	82.8	92.6	101.5	110.9	120.0	128.2	135.5	143.0	150.9	150.9	150.9
25.4cm	1.9	7.2	11.8	18.4	24.9	29.6	36.1	41.2	47.6	54.4	62.1	69.4	76.1	83.1	90.0	96.2	101.7	107.3	113.1	113.1	113.1

Short Grain Rice—Drive Type 4

Based on .55 kg/liter

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Kilograms per Hectare																				
15.2cm	5.2	19.5	32.1	50.3	68.3	81.1	98.7	113.0	130.5	149.0	170.1	190.1	208.5	227.5	246.6	263.3	278.4	293.8	309.8	309.8	309.8
19.1cm	4.1	15.6	25.7	40.2	54.6	64.9	79.0	90.5	104.4	119.1	136.1	152.0	166.8	182.0	197.3	210.6	222.7	235.0	247.8	247.8	247.8
25.4cm	3.0	11.7	19.3	30.2	40.9	48.6	59.2	67.8	78.2	89.3	102.1	114.0	125.1	136.5	148.0	157.9	167.0	176.3	185.8	185.8	185.8

Rye—Drive Type 1

Based on .73 kg/liter

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Kilograms per Hectare																				
15.2cm	0.0	3.0	8.4	13.5	19.7	25.6	29.9	37.0	43.5	50.1	56.5	61.9	67.1	72.9	78.7	85.9	92.2	99.8	107.7	108.5	108.8
19.1cm	0.0	2.4	6.7	10.8	15.8	20.4	23.9	29.6	34.7	40.1	45.2	49.4	53.7	58.3	63.0	68.7	73.9	79.8	86.2	86.8	87.1
25.4cm	0.0	1.8	5.0	8.1	11.8	15.4	17.9	22.2	26.1	30.0	33.8	37.1	40.2	43.7	47.2	51.4	55.4	59.9	64.7	65.1	65.3

Soybeans—Drive Type 2

Based on .75 kg/liter

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Kilograms per Hectare																				
15.2cm	0.0	6.4	17.6	29.6	43.6	52.2	64.7	76.1	88.4	100.9	111.6	125.2	137.6	149.5	161.4	173.8	184.0	196.3	208.9	210.0	210.6
19.1cm	0.0	5.0	14.0	23.6	34.9	41.8	51.8	60.9	70.7	80.7	89.3	100.2	110.2	119.6	129.1	139.1	147.2	157.0	167.1	168.0	168.5
25.4cm	0.0	3.8	10.5	17.8	26.1	31.4	38.8	45.7	53.0	60.5	67.0	75.1	82.6	89.7	96.8	104.4	110.4	117.8	125.4	126.0	126.4

Soybeans—Drive Type 3

Based on .75 kg/liter

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Kilograms per Hectare																				
15.2cm	0.0	12.6	24.4	43.8	64.4	76.6	96.3	109.4	126.0	142.2	160.4	177.5	195.7	212.6	231.3	246.4	268.9	287.3	307.3	307.7	307.9
19.1cm	0.0	10.0	19.5	35.0	51.6	61.3	77.0	87.5	100.8	113.8	128.3	142.0	156.6	170.0	185.1	197.0	215.1	229.9	245.9	246.1	246.4
25.4cm	0.0	7.5	14.7	26.2	38.7	46.0	57.7	65.7	75.5	85.3	96.3	106.6	117.5	127.6	138.8	147.8	161.3	172.4	184.4	184.6	184.7

Soybeans—Drive Type 4

Based on .75 kg/liter

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Kilograms per Hectare																				
15.2cm	0.0	20.5	40.0	72.0	105.8	125.9	158.2	179.8	207.0	233.7	263.5	291.8	321.6	349.3	380.1	404.7	441.7	472.0	504.9	505.4	505.9
19.1cm	0.0	16.5	32.1	57.5	84.6	100.7	126.5	143.8	165.5	187.0	210.8	233.4	257.2	279.4	304.1	323.8	353.4	377.6	404.0	404.3	404.7
25.4cm	0.0	12.3	24.0	43.2	63.4	75.5	94.9	107.8	124.2	140.2	158.0	175.1	192.9	209.6	228.1	242.9	265.1	283.2	303.0	303.2	303.5

Sunflowers—Drive Type 1

Based on .36 kg/liter

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Kilograms per Hectare																				
15.2cm	0.0	0.0	2.1	4.5	6.5	8.9	11.4	13.8	16.4	18.9	21.5	24.0	28.6	29.1	31.6	34.1	36.3	38.4	40.9	42.0	43.4
19.1cm	0.0	0.0	1.8	3.6	5.3	7.1	9.1	11.0	13.1	15.1	17.3	19.2	21.3	23.3	25.3	27.2	29.0	30.7	32.7	33.6	34.7
25.4cm	0.0	0.0	1.3	2.7	3.9	5.4	6.8	8.3	9.9	11.4	12.9	14.3	15.9	17.5	18.9	20.4	21.9	23.1	24.5	25.2	26.0

Wheat-Drive Type 2

Based on .82 kg/liter

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Kilograms per Hectare																				
15.2cm	0.0	16.9	27.6	38.9	50.5	62.9	75.7	89.0	102.7	117.0	131.7	146.8	162.5	178.5	195.0	212.0	229.3	247.1	256.3	283.8	302.7
19.1cm	0.0	13.6	22.1	31.0	40.5	50.3	60.5	71.2	82.2	93.6	105.4	117.5	130.0	142.8	156.0	169.6	183.5	197.7	212.2	227.1	242.2
25.4cm	0.0	10.1	16.6	23.3	30.4	37.8	45.4	53.4	61.6	70.2	81.4	88.1	97.5	108.3	117.0	127.2	137.6	148.3	159.2	170.3	181.6

Wheat-Drive Type 3

Based on .82 kg/liter

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Kilograms per Hectare																				
15.2cm	0.0	21.5	38.8	57.6	77.7	99.0	121.3	144.4	168.2	192.6	217.3	242.2	267.2	292.1	316.7	341.0	364.6	387.6	409.6	430.5	450.2
19.1cm	0.0	17.1	31.0	46.1	62.2	79.1	97.1	115.6	134.6	154.0	173.8	193.8	213.7	233.7	253.4	272.8	291.8	310.0	327.6	344.4	360.2
25.4cm	0.0	12.9	23.3	34.5	46.6	59.4	72.7	86.6	100.9	115.6	130.4	145.4	160.4	175.3	190.1	204.6	218.8	232.6	245.7	258.4	270.1

Wheat Grass-Drive Type 1

Based on .30 kg/liter

	Seed Rate Handle Setting																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Row Space	Kilograms per Hectare																				
15.2cm	0.0	1.0	2.2	3.3	4.5	5.5	6.4	7.8	9.0	10.3	11.5	12.7	14.0	15.1	16.5	17.9	19.1	20.6	21.7	22.2	22.5
19.1cm	0.0	0.8	1.8	2.6	3.6	4.4	5.2	6.3	7.2	8.2	9.2	10.2	11.2	12.1	13.2	14.3	15.2	16.5	16.8	17.7	18.0
25.4cm	0.0	0.6	1.3	1.9	2.7	3.3	3.8	4.7	5.4	6.2	6.9	7.6	8.4	9.1	9.9	10.8	11.4	12.3	12.9	13.3	13.5