

MANURE APPLICATOR CALIBRATION GUIDE IF SPREADER CAPACITY IS KNOWN

Author: Rick Koelsch, University of Nebraska

From chart below, select 1) Spreader Capacity: _____ lbs. or gallons; 2) Distace traveled (length) to empty spreader: _____ feet; and 3) Spread pattern width or distance between individual passes: _____ feet. 4) Intersection indicates application rate: _____. If appropriate values cannot be found in table below: Rate per acre = Spreader Capacity x 43560 / (Width X Length). *Example: 3000 gallon tank spreader that makes a pass every 4 30"corn rows (10 feet) and empties spreader in 1200 feet is applying 11,000 gallons per acre.*

Speed Width→	2000 Gallon tank						2500 gallon tank						3000 gallon tank						3500 gallon tank						4000 gallon tank						4500 gallon tank					
	10'	15'	20'	25'	30'	35'	10'	15'	20'	25'	30'	35'	10'	15'	20'	30'	40'	50'	10'	15'	20'	30'	40'	50'	10'	15'	20'	30'	40'	50'	10'	15'	20'	30'	40'	50'
Length	Liquid manure application rate (1000's of gallons per acre)																																			
600'	15	10	7	6	5	4	18	12	9	7	6	5	22	15	11	7	5	4	25	17	13	8	6	5	29	19	15	10	7	6	33	22	16	11	8	7
800'	11	7	5	4	4	3	14	9	7	5	5	4	16	11	8	5	4	3	19	13	10	6	5	4	22	15	11	7	5	4	25	16	12	8	6	5
1000'	9	6	4	3	3	2	11	7	5	4	4	3	13	9	7	4	3	3	15	10	8	5	4	3	17	12	9	6	4	3	20	13	10	7	5	4
1200'	7	5	4	3	2	2	9	6	5	4	3	3	11	7	5	4	3	2	13	8	6	4	3	3	15	10	7	5	4	3	16	11	8	5	4	3
1400'	6	4	3	2	2	2	8	5	4	3	3	2	9	6	5	3	2	2	11	7	5	4	3	2	12	8	6	4	3	2	14	9	7	5	4	3
1600'	5	4	3	2	2	2	7	5	3	3	2	2	8	5	4	3	2	2	10	6	5	3	2	2	11	7	5	4	3	2	12	8	6	4	3	2
1800'	5	3	2	2	2	1	6	4	3	2	2	2	7	5	4	2	2	1	8	6	4	3	2	2	10	6	5	3	2	2	11	7	5	4	3	2
2000'	4	3	2	2	1	1	5	4	3	2	2	2	7	4	3	2	2	1	8	5	4	3	2	2	9	6	4	3	2	2	10	7	5	3	2	2
2500'	3	2	2	1	1	1	4	3	2	2	1	1	5	3	3	2	1	1	6	4	3	2	2	1	7	5	3	2	2	1	8	5	4	3	2	2
3000'	3	2	1	1	1	1	4	2	2	1	1	1	4	3	2	1	1	1	5	3	3	2	1	1	6	4	3	2	1	1	7	4	3	2	2	1

Speed Width→	5000 Gallon tank						5500 gallon tank						6000 gallon tank						3 ton spreader (90 bushel)						4 ton spreader (120 bushel)						6 ton spreader (175 bushel)					
	10'	15'	20'	30'	40'	50'	10'	15'	20'	30'	40'	50'	10'	15'	20'	30'	40'	50'	10'	15'	20'	25'	30'	35'	10'	15'	20'	25'	30'	35'	10'	15'	20'	25'	30'	35'
Length	Liquid manure application rate (1000's of gallons per acre)																		Solid manure application rate (tons per acre)																	
600'	36	24	18	12	9	7	40	27	20	13	10	8	44	29	22	15	11	9	22	15	11	9	7	6	29	19	15	12	10	8	44	29	22	17	15	12
800'	27	18	14	9	7	5	30	20	15	10	7	6	33	22	16	11	8	7	16	11	8	7	5	5	22	15	11	9	7	6	33	22	16	13	11	9
1000'	22	15	11	7	5	4	24	16	12	8	6	5	26	17	13	9	7	5	13	9	7	5	4	4	17	12	9	7	6	5	26	17	13	10	9	7
1200'	18	12	9	6	5	4	20	13	10	7	5	4	22	15	11	7	5	4	11	7	5	4	4	3	15	10	7	6	5	4	22	15	11	9	7	6
1400'	16	10	8	5	4	3	17	11	9	6	4	3	19	12	9	6	5	4	9	6	5	4	3	3	12	8	6	5	4	4	19	12	9	7	6	5
1600'	14	9	7	5	3	3	15	10	7	5	4	3	16	11	8	5	4	3	8	5	4	3	3	2	11	7	5	4	4	3	16	11	8	7	5	5
1800'	12	8	6	4	3	2	13	9	7	4	3	3	15	10	7	5	4	3	7	5	4	3	2	2	10	6	5	4	3	3	15	10	7	6	5	4
2000'	11	7	5	4	3	2	12	8	6	4	3	2	13	9	7	4	3	3	7	4	3	3	2	2	9	6	4	3	3	2	13	9	7	5	4	4
2500'	9	6	4	3	2	2	10	6	5	3	2	2	10	7	5	3	3	2	5	3	3	2	2	1	7	5	3	3	2	2	10	7	5	4	3	3
3000'	7	5	4	2	2	1	8	5	4	3	2	2	9	6	4	3	2	2	4	3	2	2	1	1	6	4	3	2	2	2	9	6	4	3	3	2

Speed Width→	8 ton spreader (230 bushel)						10 ton spreader (290 bushel)						12 ton spreader (350 bushel)						14 ton spreader (410 bushel)						16 ton spreader (470 bushel)						18 ton spreader (530 bushel)					
	10'	15'	20'	25'	30'	35'	10'	15'	20'	25'	30'	35'	10'	15'	20'	25'	30'	35'	10'	15'	20'	25'	30'	35'	10'	15'	20'	25'	30'	35'	10'	15'	20'	25'	30'	35'
Length	Solid manure application rate (tons per acre)																																			
600'	58	39	29	23	19	17	73	48	36	29	24	21	87	58	44	35	29	25	102	68	51	41	34	29	116	77	58	46	39	33	131	87	65	52	44	37
800'	44	29	22	17	15	12	54	36	27	22	18	16	65	44	33	26	22	19	76	51	38	30	25	22	87	58	44	35	29	25	98	65	49	39	33	28
1000'	35	23	17	14	12	10	44	29	22	17	15	12	52	35	26	21	17	15	61	41	30	24	20	17	70	46	35	28	23	20	78	52	39	31	26	22
1200'	29	19	15	12	10	8	36	24	18	15	12	10	44	29	22	17	15	12	51	34	25	20	17	15	58	39	29	23	19	17	65	44	33	26	22	19
1400'	25	17	12	10	8	7	31	21	16	12	10	9	37	25	19	15	12	11	44	29	22	17	15	12	50	33	25	20	17	14	56	37	28	22	19	16
1600'	22	15	11	9	7	6	27	18	14	11	9	8	33	22	16	13	11	9	38	25	19	15	13	11	44	29	22	17	15	12	49	33	25	20	16	14
1800'	19	13	10	8	6	6	24	16	12	10	8	7	29	19	15	12	10	8	34	23	17	14	11	10	39	26	19	15	13	11	44	29	22	17	15	12
2000'	17	12	9	7	6	5	22	15	11	9	7	6	26	17	13	10	9	7	30	20	15	12	10	9	35	23	17	14	12	10	40	26	20	16	13	11
2500'	14	9	7	6	5	4	17	12	9	7	6	5	21	14	10	8	7	6	24	16	12	10	8	7	28	19	14	11	9	8	31	21	16	13	10	9
3000'	12	8	6	5	4	3	15	10	7	6	5	4	17	12	9	7	6	5	20	14	10	8	7	6	23	15	12	9	8	7	26	17	13	10	9	7