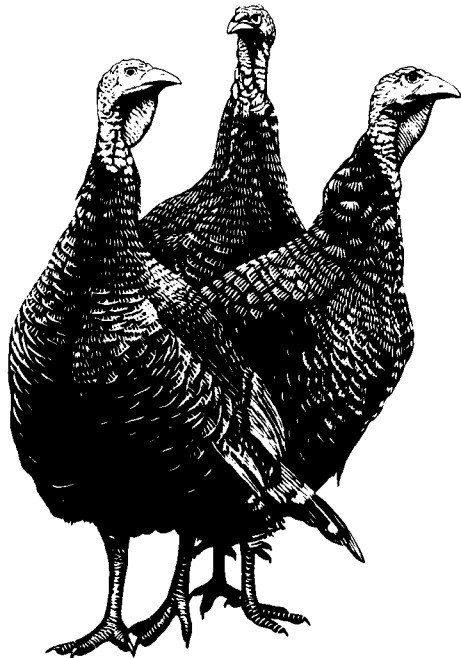


Poultry manure cannot be utilized effectively if you do not know how much you are applying in the field. Calibrating your spreader is a simple, effective way for you to improve the utilization of the nutrients in the manure. Only by knowing the application rate of your spreader can you correctly apply manure to correspond to crop needs.

### Calibration of Solid Manure Spreaders

To calibrate a spreader for solid manure, you will need the following materials:

1. Bucket
2. Collection sheet, which can be a plastic sheet, tarp or old bedsheet (an even size, such as 8 ft. x 8 ft., 10 ft. x 10 ft., 10 ft. x 12 ft., etc., will make calculation easier)
3. Scale



## Calibration of Manure Spreaders

Pounds of Manure Applied to Collection Sheet	Size of Collection Sheet		
	8' x 8'	10' x 10'	10' x 12'
Tons of Manure Applied Per Acre			
1	0.34	0.22	0.18
2	0.68	0.44	0.36
3	1.02	0.65	0.54
4	1.36	0.87	0.73
5	1.70	1.09	0.91
6	2.04	1.31	1.09
7	2.38	1.52	1.27
8	2.72	1.74	1.45
9	3.06	1.96	1.63
10	3.40	2.18	1.83
11	3.74	2.40	2.00
12	4.08	2.61	2.18
13	4.42	2.83	2.36
14	4.76	3.05	2.54
15	5.10	3.27	2.72
16	5.45	3.48	2.90
17	5.79	3.70	3.09
18	6.13	3.92	3.27
19	6.47	4.14	3.45
20	6.81	4.36	3.63
21	7.15	4.57	3.81
22	7.49	4.79	3.99

If the size of your sheet is not listed, use the following equation to determine manure application per acre.

$$\frac{\text{Lbs. of manure collected on sheet} \times 21.78}{\text{Area of sheet, sq. ft.}} = \text{Tons/acre}$$

## To calibrate your spreader:

1. Locate a large and reasonably smooth, flat area where manure can be applied.
2. Spread the collection sheet smoothly and evenly on the surface of the test field.
3. Start driving the spreader at the normal application speed toward the collection sheet spread on the ground; allow the manure to begin leaving the spreader at an even, normal rate.
4. Drive over the collection sheet at the normal application speed while continuing to apply manure.
5. Collect all manure spread on the collection sheet and pour it into the bucket.
6. Weigh bucket with manure, then subtract empty-bucket weight. This will give you the pounds of manure applied to the collection sheet.
7. Repeat the procedure three times to get a reliable average.
8. Determine average weight of the three manure applications.
9. Refer to the table for the size of the collection sheet and pounds of manure applied to the collection sheet. Then read "Tons of Manure Applied Per Acre."

This procedure is particularly suitable for dry waste such as broiler and broiler breeder litter. Wet litter or manure is more difficult, but the basic procedure can still be used. A plastic sheet works well to catch wet manure. The main difference in the procedure is that you will place the plastic sheet and the wet manure in the bucket together, then subtract the dry weight of both bucket and plastic sheet as in Step 6. The remaining steps are the same.

This publication was adapted from "Calibration of Manure Spreaders" by Elridge R. Collins, Virginia Polytechnic Institute & State University; and "Calibrating Spreaders for the Application of Poultry Manure" by Charles Goan, University of Tennessee.

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# SPREADER CALIBRATION FOR THE APPLICATION OF POULTRY MANURE

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