



Manure Spreader Calibration

Introduction:

To be able to manage manure on farms it is essential to know the quantity being spread. Knowing the amount of manure spread at the planned rate and plant nutrients available from the manure enables an adjustment to be made to the amount of fertilizer needed. It is important to spread the manure evenly possible to avoid part of the field getting excessive nutrients and another part not getting enough. Equally important is to spread the manure over the whole farm since the nutrients in the manure in part come from crops harvested from the whole farm. This will avoid potential accumulation of excess nutrients in fields close to the barn.

How to Calibrate Manure Spreader:

Method 1 (solid or semi solid manure)

Equipment required: plastic sheet 6 x 6ft or 10 x 10ft, scale, and a bucket.

1. Weigh sheet with bucket on the scale.
2. Lay sheet in the field in the path of manure spreader, positioning it so the tractor will be at spreading speed before it reaches the sheet.
3. After spreading, weigh sheet and manure in the bucket. Repeat this step to get an average weight. Subtract weight of sheet plus bucket.
4. Tons manure/acre = wt. of collected manure (lb) x 21.8 ÷ size of plastic sheet (sq ft)

Method 2 (liquid manure)

Equipment required: yard stick, rope.

1. Determine manure spreader capacity (see factsheet number 26).
2. Tie rope around the tractor tire to determine distance traveled in one revolution.
3. Spread manure load, counting wheel revolutions to determine the distance traveled.
4. Measure width that spreader is covering with manure, multiply by distance traveled.
5. Divide by 43,560 to determine area (in acres) covered by one load.
6. Divide spreader capacity (step 1) by acres covered (step 5) to determine tons or gallons applied per acre.

Proper and timely adjustment of manure spreaders can minimize the chance of over-application of manure.

For more information visit www.umass.edu/cdl

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