# Calibration of a Push Spreader

The process for calibrating a push spreader includes pushing the spreader on each setting and weighing the amount of product that comes out. This should be calculated for each setting and for each different product used. Record the results in the table on the back of this sheet in the corresponding column.

**Tools you will need:**

- The product(s) you are spreading
- Tarp (10 feet or longer)
- Scale
- Broom
- Shovel

## Calibration Steps

Fill the push spreader with the product you are applying.

Record the lever position/setting for the gate/chute (**B**). If there are no numbers for the positions, make permanent marks on the equipment to identify the positions. These calibration steps should be repeated for each position so you know how much product is being applied at each setting.

Lay down the tarp and measure out a 10-foot long stretch (hint: use tape on the tarp so you can easily see the 10-foot area). A longer test area can be used. The longer the test area, the more accurate the results will be. If a longer test area is used you will need to adjust this in the table on the back of this sheet.

Using a constant speed (**A**), apply one pass of material to the 10-foot test area. Measure the width the material is spread or bounces, in feet (**D**).


Sweep up and weigh the material that is within the marked 10-foot stretch.

To improve accuracy, repeat this two more times at each setting and calculate the average weight of material applied (**C**).

***Tip:*** *After the first pass, you can put a bag around spreader to catch and easily weigh the material being discharged. The first pass needs to be unbagged to determine the spread width.*

# Calculating Application Rate

**Test Area Length = 10 feet***

*If your test area is longer than 10-feet, use that number in your calculation for column **E** (e.g. if your test area is 20-feet long, the calculation for column **E** would be (**D** x 20).*

| A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|
| **Speed (mph)** | **Lever Position or Gate Setting** | **Weight of material spread in test area (lbs)** | **Spread width (feet)** | **Coverage area (Sq. ft.)** *(Dx10)** | **Application rate (lbs/1000ft²)** $\frac{C}{E} * 1000$ | **Application rate (lbs./lane mile) (12' width)** *(F x 63.4)* |
| *20* | *3* | *0.4 lbs* | *13 feet* | *130 ft²* | *3.1 lbs per 1000 ft²* | *196 lbs./mile* |
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# Create a Guide for each Spreader

| Setting | Square Feet | Pounds | Pounds/1000 sq. ft. |
|---|---|---|---|
| 3 | 130 | 3.1 | 196 |
| 4 | 130 | 6.2 | 390 |
| 5 | 130 | 8.5 | 536 |

- Laminate and attach guide to spreader
- Keep a copy in the shop