

*This information is provided compliments of Acme Rental Centre (3891 Chatham Street, Richmond) and is for reference only as each lawn is unique onto itself. Please call Martin at 604-271-3014 to discuss your personal lawn needs.*

## **ROTARY SPREADER**

The rotary spreader generally has a wider pattern of distribution compared to a drop spreader and thus can cover a larger area in a short time. The application pattern of the rotary spreader also gradually diminishes away from the machine, reducing the probability of an application skip. The uneven, wide pattern of the rotary spreader is initially harder to calibrate and heavier fertilizer particles tend to sling farther away from the machine. However, proper calibration and experience minimize these.

Spreader calibration involves measurement of the fertilizer output as the spreader is operated over a known area. One way to ensure uniform application of material is to divide the material into two equal portions. Use a spreader calibration which will deliver one-half the correct amount of material. Make an application over the entire area, turn the spreader direction ninety degrees (90°) from the initial application, and make a second application. This eliminates skips in the coverage. Accordingly, calibration of the spreader should be based on one-half desired application rates. A flat surface, a method of collecting the material, and a scale for weighing the material is needed for calibration. The following sequence of steps will aid in calibrating a fertilizer spreader.

## **CALIBRATING A ROTARY (CENTRIFUGAL) SPREADER**

It is important that the "effective" width of application be determined first. Follow these steps, in order, to calibrate your rotary (centrifugal) spreader.

1. Check the spreader to make certain all parts are operating properly.
2. Fill the hopper about half full with the material you plan to apply and run it with the spreader setting about half open (medium setting). Make the application on bare ground or hard surface where the width of surface covered by the material can be measured.
3. Rotary spreaders do not apply a constant amount of material across the entire width of application. More material is applied toward the center and less at the edges. For this reason, the width of application is accurate for a constant application rate only at about 2/3 (60 to 70%) of the actual width measured. *Example:* If the application width is 12 feet, only about 8 feet or 4 feet across both sides of the spreader, within the band of application, is receiving approximately the same application rate. The other 2 feet on each edge respectively receive much less material than the center area. Once this "effective" width is determined, calibration is fairly simple.
4. Mark off a test distance which when multiplied by the effective width will give you a 1000 square foot area. For this example, assume that the "effective" width is 10 feet. Then the test strip will be 100 feet long since width times length is  $10 \times 100$  or 1000 square feet. *Note:* This calculation is based on "effective" width of application and not the total width.

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5. Determine the amount of material to be applied. *Example:* To apply 1 pound of nitrogen per 1000 square feet using a 1648 fertilizer, 6.25 pounds of material should be applied per 1000 square feet.
6. Fill the hopper with a known weight of fertilizer and adjust the spreader to the lowest setting which will allow the material to flow. Push the spreader down the center of the test area, opening the hopper at the starting line and closing it at the finish. Weigh the material left in the spreader and subtract that amount from the starting weight to determine the amount used per 1000 square feet. The beginning weight minus the ending weight tells how much material was applied per 1000 square feet.
7. Repeat the preceding step at successively greater settings (openings) and record the material applied at each setting.
8. Select the spreader setting which most closely applies the desired rate of material, set the spreader accordingly, and use it on any size area. To obtain uniform spread of material, remember to set the spreader at half the desired rate of application and make two passes at 90° to each other. Strive for proper spread overlap during application. *Example:* If the "effective" width is 10 feet, after each pass, move the spreader over 10 feet from the center of the tire tracks. This will give a fairly constant rate of application over the entire area.