LOUISIANA HOME LAWN SERIES
A guide to maintaining a healthy Louisiana lawn

Broadcast (Rotary) Spreader Calibration

Broadcast (Rotary) Spreader Basics

Broadcast or rotary spreaders allow for distribution of dry products, such as fertilizers and pesticides, to a larger area faster than a drop spreader. Broadcast spreaders can be handheld, walk-behind, motorized or attached to equipment, such as ride-on lawn mowers. Many newer broadcast spreaders have shields to block distribution to areas that the applicator does not want treated. By following these simple steps below, you can calibrate your broadcast spreader.

Broadcast spreader

Broadcast Spreader Calibration

STEP 1: Check to make sure the broadcast spreader is working properly, and the hopper is clean and dry. A rotary spreader must be in proper working condition to be calibrated.

STEP 2: Make sure the distribution of the broadcast spreader is a bell-shaped curve. This means that more product is distributed directly in front of the spreader and amounts decline to either side.

STEP 3: Measure the width the broadcast spreader will throw the product. This step will require some assistance. While someone is applying the product for a short distance, two people walking on each side can mark with flags the distance the material is thrown to each side. Measure the distance between the two flags. This is the application width.

Measure broadcast spreader application width

STEP 4: Measure a calibration area that will be sufficient to reach and maintain a constant travel speed. For example, if the application width is 10 feet, measure a distance of 100 feet and mark with flags. This will give a calibration area of 1,000 square feet (10 feet x 100 feet = 1,000 square feet).

STEP 5: Based on the product being applied, determine the rate of product that you need to apply. This rate will be used to determine the amount of product that will need to be captured in the calibration area. For example, a fertilizer with an analysis of 20-0-0 and recommended rate of 1 pound of nitrogen per 1,000 square feet will require 5 pounds of fertilizer to be applied in a 1000 square-foot calibration area to achieve the recommended rate of 1 pound of nitrogen per 1,000 square feet. If you need a refresher on fertilizer calculations, see publications 3624-YY and 3624-ZZ to learn how to complete these calculations.

STEP 6: Place a known weight of product into the hopper. The weight of the product should exceed the amount expected to be released during calibration. Be sure the product is evenly distributed across the hopper.

STEP 7: Most broadcast spreaders have dials or slides that control the orifice size that the product drops through at the base of the hopper. It may be labeled with numbers or letters. Familiarize yourself with it before choosing a setting. Make sure to write down the setting.

STEP 8: Move to the calibration area. Begin walking well behind the first marker of the calibration area in order to reach a comfortable walking or traveling speed. It is important to maintain a constant speed during calibration. Turn the lever to release the product from the hopper as you cross the first calibration marker. Make sure to use the lever to close the hopper as you cross the second calibration flag or end of the calibration area.

STEP 9: Turn around and repeat STEP 8. Remember the application of a broadcast spreader is not spread evenly across like a drop spreader.

STEP 10: Carefully remove the remaining product from the hopper and weigh. The difference between the product weight before traveling the calibration area and the amount of product remaining in the hopper is equal to the amount released as you traveled the calibration area (10 lbs. - 5 lbs. = 5 lbs.). If the amount of product released equals the weight calculated in STEP 5, then the broadcast spreader is calibrated for the product and speed used in calibrating the broadcast spreader.

STEP 11: If the product weight is not equal to the amount calculated in STEP 5, then change the orifice size with the control dial or slide and repeat the calibration steps until the amount of product released in the calibration area equals the amount calculated in STEP 5.

TIP: In order to apply products accurately, you must calibrate for each product. The size of the product will affect calibration. Also consider calibrating your broadcast spreader frequently to ensure proper calibration per product applied.

To view a video on how to complete this calibration procedure, visit

www.youtube.com/watch?v=m8rum7uR404

Place product in broadcast spreader

Adjust broadcast spreader dial

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