EXPLORING EQUIPMENT

Calibrating Pendulum Spreaders

By Pete Thompson

There are several considerations you need to take into account before calibrating a pendulum spreader. You are paying for an agronomic benefit when applying fertilizers and/or control products, and we all like a good return on our investments. Therefore, when we put down a dollar's worth of product, we like to see a dollar's worth of benefit.

The proper product and application rate will help us with aesthetics and, at the same time, is beneficial to the turf. Properly choosing and applying these products is critical. Improper product applications will reduce the effectiveness of the product being used. Erratic results, wasted product, damaged turf and even repeat applications — all can be the result of improper spreader calibration. By accurately calibrating your spreader, you can eliminate the above and achieve fantastic results.

Other considerations prior to calibrating your spreader are the unit itself and the equipment used to operate it. Make sure all your equipment is set to provide the proper ground speed and proper PTO rpm. To maximize spreader results, make sure that the inside of the hopper and the inside of the spout are clean. Also, check that all lubrication points are greased and that the spreader is in top mechanical condition.

Calibration of a pendulum spreader is more simple than you may think. Using the slide rule supplied with the unit, note that there are five individual steps needed to calibrate. Prior to starting spreader calibration, you will need:

- A watch with a second hand.
- A 5-gallon bucket or its equivalent.
- A scale.
- · A tape measure.
- The product to be calibrated.

• The slide rule supplied with you spreader.

For initial spreader setting, set the spreader on number 28 of the regulating handle. Put approximately 50 pounds of product into the hopper. With your spreader running at its proper speed, open the hopper and let the product fall from the spout for about 10 seconds. Measure the swath width of the product. Using the slide rule, set the cross hair to the swath width measured in your test. Let's use an example of 40 feet.

Determine the amount of product in pounds per acre for step number two. Using a product such as 24-5-11, to get one pound of nitrogen per 1,000 square feet, it takes 3.625 bags per acre. This amounts to 181 pounds of product per acre. Slide the white card inside the ruler until the cross hair aligns with the 181-pound mark.

Step three is to figure out how many miles per hour you will be traveling across the turf. Using an example of 5 mph, move the cross hair to the 5 mph mark on the slide rule.

Step four shows pounds per minute the spreader needs to spread at five miles per hour for 181 pounds per acre at a 40-foot swath width. In our example, we will need to collect 74 pounds of product per minute.

Step five is to remove the spout from your pendulum spreader, place a bucket underneath the spreader discharge port, with the spreader running at its proper speed, and collect the product for 15 seconds. Close the hopper. Weigh the mount of product collected during those 15 seconds, and multiply your results by four. Assume that, with the spreader setting at number 28, you have only collected 64 pounds of product per minute. This would mean you are 10 pounds short of your 74-pound-per minute collection target. To reach this goal, you will need to collect 19.5 pounds in 15 seconds, or a total of 74 pounds per minute. Adjust the regulating handle to setting number 33, and recheck the amount of material coming out of the spreader. When you have achieved 74 pounds per minute again, just an example — you have set your spreader properly and are ready to apply the product.

Editor's note: Pete Thompson is manager, application equipment, for Lesco Inc.

