

## How to Calibrate Hand-carried, Truck-mounted Granular Spreaders (from page 12)

the spreader. Mark your starting point and where the granules are depleted at the end of the test run. Measure the distance between these two points, and multiply it by the width of the spreader's swath. The answer will be the area of the treated plot in square feet.

$$\begin{aligned} &\text{Length of test run (ft.)} \times \\ &\quad \text{Width of swath (ft.)} \\ &= \text{Sq. ft. treated (A)} \end{aligned}$$

Now the actual application rate can be computed by using the following formula.

$$\begin{aligned} &\frac{\text{Weight of pesticide (W)}}{\text{Area covered in trial (A)}} \\ &= (P) \text{ pesticide lbs./sq. ft.} \end{aligned}$$

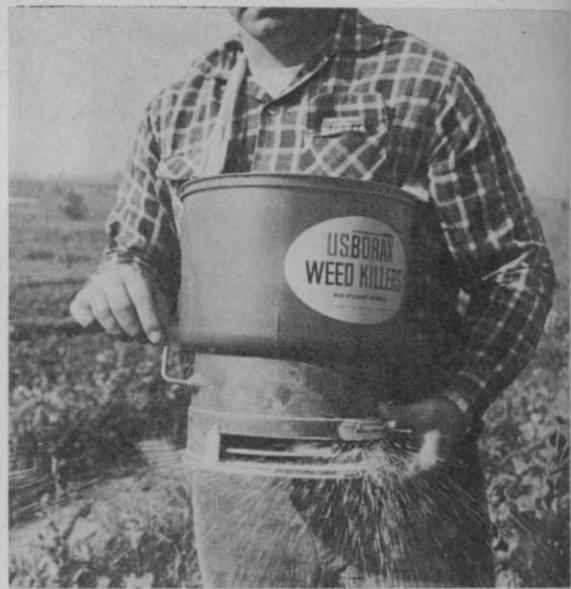
To compare the actual rate with the recommended rate in terms of lbs./100 sq. ft., multiply the answer (P) by 100. To express the actual rate in terms of lbs./A., multiply (P) by 43,560. If the actual rate of the trial is not correct, pour the pesticide from the cloth bag back into the spreader, and repeat the trials until the recommended rate is obtained. When the actual rate from a trial is low, increase the discharge from the spreader or decrease the travel speed. When the actual rate is high, decrease the discharge or increase the speed.

### Calibrate Truck-mounted Spreaders with a Tarp

Because of the larger equipment, calibration of truck- or tractor-mounted power spreaders is slightly different than adjusting hand-carried spreaders. A light tarpaulin will be needed to catch the discharged granules as was the cloth bag for the smaller spreader. Fasten the tarp to the bottom of the spreader or to the back of the truck body. Then drape the tarp around the sides of the spreader forming a hammock that will catch the flying granules which should be retained during trial runs.

Since the width of swath is greater with such power equipment, a larger test area and hence more pesticide in each

**Hand-carried granule spreaders** are calibrated by moving only a few adjustment knobs, one under this operator's thumb. Walking speed or the spreader's output can be changed to assure the proper application rate.



trial will be necessary. Use 5% to 10% of the quantity recommended per acre or enough to cover about 3,000 to 5,000 square feet. Again, note the weight of granules used, measure the distance of the trial run, compute the area covered, and convert to lbs./100 sq. ft. or lbs./A. as previously described. Compare the actual output rate with the recommended rate and either increase or decrease the discharge rate, or change travel speed so that actual discharge matches the desired rate.

### Seed Drills Calibrated

If a drill-type seeder is used to distribute pesticide on or beside a row of plants, essentially the same procedure should be used. Note whether the "Directions For Use" on the pesticide container express application rate as lbs./A., lbs./100 lineal feet, or lbs./1,000 lineal feet of row. In any case, granules can be caught in cans secured over the ends of each tube.

Weigh the pesticide caught in the can, but not the can. Divide the weight by the length of the row along which the test run was made. The answer is lbs./lineal foot. Multiply this by 100 to get the rate in lbs./100 ft., or 1,000 to get 1,000 lineal ft.

If only one drill tube is used during the trial runs, multiply the actual rate obtained, per lineal feet, by the number of drill tubes on the seeder to get the

total discharger rate for the entire seeder unit (T). Multiply the recommended rate, per lineal feet, by the number of drill tubes to get the total rate for the entire seeder unit (R). Compare the actual discharge (T) with the total recommended for that seeder (R). If they are not equal, repeat with trial runs until the output equals the recommended dose. This can be done by increasing or decreasing the discharge of all the drill tubes or by changing the travel speed.

As more chemicals are developed and as regulations governing their use become more stringent, it becomes increasingly important to accurately follow label directions for use. Making certain that application equipment is properly calibrated will not only save you money on the cost of pesticides, but it will help assure the proper results and conformity with regulations where they exist.

### Purdue Offers Tree Guide

Yard tree planting tips illustrated with diagrams to show correct planting mixtures and bracing, trimming, and placement techniques, are offered in "Planting Yard Trees," an information piece now available from Purdue University.

For a copy of the tree planting guide, ask for publication HO-43, Agricultural Publications, AES Building, Purdue University, West Lafayette, Ind. 47907.