

Calibrating Your Sprayer

Calibration or rate is a product of speed, pressure and tip selection.

The sprayer should be operated at a speed using a low gear to maintain a constant speed over the varying terrain and surface conditions. The pressure and tip must be selected to give the correct rate per the label of the herbicide being applied. See catalog from Spraying Systems or equivalent.

Calibration must be accomplished using only water! NO, NO, NO chemicals should be in the tank during the calibration process. The calibration process should be performed at the site to be treated, to approximate actual use conditions.

The following method is only one way to calibrate your system. Refer to Spraying Systems' Catalog 50A or online at www.teejet.com>Tech Support>Nozzle Technical Information>Sprayer Calibration for additional methods. You may choose to use a calibrating method that suits your needs better or use a method you are familiar with.

Method of Calibration - USE WATER ONLY

- Fill the tank with water and adjust to the same pressure you will be spraying.
- Adjust the spray nozzle to the spraying height and angle to be used. With the unit stationary and the spray boom in position, run the sprayer for a minute or two on a flat surface (pressure set at 30 PSI or other) and check sprayer. Measure the spray width.
- From the table on the next page, find the spray width, which is closest to your spray width. To the right and on the same line will be the calibration distance.
- Measure and mark the calibration distance on the ground. Use a tape or other measuring tool. Do NOT use your odometer!
- Operate the unit over the calibration distance at the speed you will be operating when applying the spray, and note the time. Do this twice to make sure of your time. Check time against stated time for determining gallons per acre.
- After the time is established, with the unit stationary, spray from nozzle into a container (5 gallon bucket is recommended), using the time determined above. It is important to catch all of the water during this time for accurately measuring the output. Pour the collected spray into a container graduated in pints or ounces. Determine the number of pints collected (divide ounces by 16).

- Multiple the pints collected by the number of nozzles. This number equals the spray rate in gallons per acre. For example, if a total of 25 pints of water are collected in this manner, the sprayer is applying 25 gallons per acre at the width, speed, and spray rate tested.
- A percent accuracy is acceptable on some chemicals. Others may have a smaller tolerance. Read your label.
- If the water collected is equal to more than 26 gallons per acre, or less than 24 procedure until accuracy is obtained. Do NOT change the pressure, gallons per acre, the speed of the unit should be adjusted to compensate. Repeat the above as this will adversely affect droplet size.

SPRAY WIDTH			
<u>Nozzles</u>	<u>Spacing</u>	<u>Width in FT</u>	<u>Calibration Distance</u>
9 (4 Row)	20	15.00	363 Feet
13 (6 Row)	20	17.33	314 Feet
17 (8 Row)	20	28.33	192 Feet
25 (12 Row)	20	41.67	130 Feet

The number of pints of water collected in the time to travel the selected calibration distance will equal the gallons applied per gross acre.

Example: You have a 4 Row / 9 Nozzle sprayer. The measured spray width was 15 feet. The calibration distance from the table for your sprayer and width is 363 feet. Set pressure at 30 PSI.

Operating your sprayer for 363 feet requires 50 seconds at 5 MPH. The nozzle sprayed 28 ounces in 50 seconds. (28 divided by 16) multiplied by 9 (# nozzles) = 15.8

THE SPRAYER IS APPLYING 15.8 GALLONS PER ACRE

If a greater calibration distance is desired than shown in the table, multiply the calibration distance by 2 then divide the pints collected by 2. The collected pints being divided by 2 will equal the gallons per acre. This rationale will hold true for any multiple.

NCI keeps records for each spreader or sprayer manufactured

- These records are stored by serial number and will have complete information on your equipment as built.
- It will not reflect any changes made by the purchaser or other alterations.
- There may be differences in replacement part numbers due to technical improvements or changes in vendors / vendor supplies.



Have your serial number before you call NCI for technical assistance—1-800-241-1350