



BOOM SPRAYER CALIBRATION

(Ounce Calibration Method)

Materials needed are: measuring tape, a watch with a second hand or stopwatch, and a measuring jar graduated in ounces. **Note:** This calibration method will only work on sprayers with equal distance between nozzles.

1 Thoroughly clean the spraying system and fill the sprayer tank with water. Then turn on the sprayer and check if each nozzle is putting out the same amount. Catch the spray from each nozzle for a given time period (usually 25 to 30 seconds is long enough) and record amount for each nozzle. The collected amounts should not vary by more than 10 percent across the boom.

4 Set the desired pressure on the sprayer (if the sprayer is power-take-off PTO driven, keep throttle setting the same as it was in the field). With the sprayer parked, collect the output from one nozzle for the recorded travel time in the previous step. On directed rigs, collect spray from all nozzles per row for the noted time, and use the total spray collected at one position for the following step.

2 Use the chart on the right for the distance to drive in field. Use nozzle spacing for broadcast booms. For directed and band rigs, use the row spacing. (Example: 20 inches between nozzles, you must travel 204 feet.) For spacings that are not shown on this chart, use 4,080 divided by the nozzle spacing to find travel distance.

5 Nozzle or nozzle group output in ounces equals the gallons/ acres applied (10 ounces = 10 gallons per acre). If the gallons per acre result you receive is not reasonable for the product applied, change the rate by either:
A. adjusting the pressure and recalibrating,
B. adjusting the travel speed or
C. changing the nozzle size

3 Set the throttle and gear for spraying and operate all equipment to simulate the actual spraying operation. Do not rely on the speedometer to determine speed. Note the seconds required to drive measured distance.

6 As nozzles wear, their flow rate increases. If nozzle flow rates are 10 percent above those of new nozzles, replace them. Replace all nozzles on a single sprayer at the same time.

Nozzle Spacing OR Row Width (inches)	Travel Distance (Feet)
14	291
16	255
18	227
20	204
22	185
24	170
26	157
28	146
30	136
32	127
34	120
36	113
38	107
40	102

If you have any questions, please call your Noble soil/crop consultant at (580) 223-5810.