

## Calibrating a Boom Sprayer: Ounces to Gallons Method

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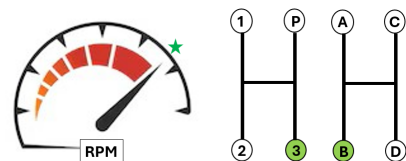
Entfact-804

Supplies needed: PPE, *measuring tape and/or wheel, stopwatch, and measuring pitcher, two flags or step in posts*

- **Fill the clean sprayer 1/2 full of water** and find a location with terrain like what you will be spraying.
- **Determine the spacing between nozzles** in inches along the boom.



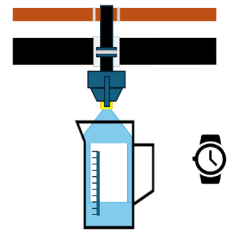
- Using the nozzle spacing, **select the travel distance from Table 1 (on reverse side)** needed to cover 1/128<sup>th</sup> acre by a single nozzle. I would add this in or move the table to the front
- **Measure and mark the course length.**
- **Determine the tractor speed to be used during spraying (RPM & gear).** Remember, the RPM must remain the same as when you will be spraying. This may take some trial and error.



- Drive the course, using the predetermined gear/RPM. **Record the amount of time (seconds) it takes to cover the distance.** Use a rolling start to be sure the tractor is at operating speed for the entire course. Drive the course and record the time at least twice and determine the average time.



- With the tractor in park and the engine/PTO at the predetermined RPM, engage the sprayer and **catch/collect the water individually from each nozzle for the number of seconds it took to travel the course**. Catch the spray in measuring pitcher.



- Calculate the average nozzle output. Clean or replace any nozzles that are more than 10% above or below the average output. If any nozzles were cleaned or replaced, repeat the nozzle catch test for all nozzles until they are all within 10% of the average output.
- **The average output per nozzle measured in ounces equals the gallons per acre for the boom sprayer.**

Average ounces collected per nozzle = Gallons per acre (GPA)

*Table 1. Set course length based on nozzle spacing to equal 1/128<sup>th</sup> acre (340 sq ft).*

Nozzle Spacing (in)	Course Length (ft)
12	340
16	256
18	227
20	204
24	170
30	136
36	113
40	102

Of course, ALWAYS READ AND FOLLOW LABEL DIRECTIONS FOR SAFE USE OF ANY PESTICIDE!

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