

Small Sprayer / Hand Gun Calibration

1. Mark off an area 18.5 feet by 18.5 feet.
2. Adjust the pressure and spray pattern to be what you would use in the field.
3. With water, spray the marked off area while timing yourself.
4. Spray into a container for the same amount of time it took you to spray the marked area.
5. Measure that volume of water in ounces.
6. That number of ounces will be equivalent to the gallons per acre your sprayer is delivering (calibrated rate).

Note:

- 18.5 X 18.5 Feet is equivalent to 1/128th acre. There are 128 fluid ounces in one gallon; therefore, every ounce applied to 1/128th of an acre is equivalent to one gallon per acre.
- To determine the amount of chemical to put in your sprayer, use the following formula:

$$\frac{\text{(gallons of solution)}}{\text{calibrated rate}} \times \text{(rate of chemical)} = \text{amount of chemical needed}$$

i.e. One 10 gallon backpack sprayer is calibrated at 50 gallons per acre (gpa) and you want to apply Roundup at 2 quarts per acre.

$$\frac{10 \text{ gal}}{50 \text{ gpa}} \times 2 \text{ quarts} = .4 \text{ quarts of Roundup needed}$$

$$32 \text{ fluid ounces per quart} \times .4 \text{ quarts} = 12.8 \text{ fluid ounces needed}$$

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