

Backpack Sprayer Calibration

Items needed:

Backpack sprayer (half full of water)

Calibration Cup that measures in ounces

Measuring tape that measures in inches

Measuring wheel or 300 foot measuring tape

Flags

Stop watch

Paper and pen

Calculator

Another person to help you.

1 .Determine: Gallons per Minute

Load the backpack sprayer on your back and pressurize the sprayer by continuously pumping the handle

Collect water for one minute in a calibration cup that measures in ounces
Record the number:

Do the math: Ounces collected in one minute divided by 128 ounces
(There are 128 ounces in a gallon)
Record number:

2. Measure the width of sprayer pattern in inches Record number:

3. Determine the area covered in square feet per minute

Mark the starting point.

Select someone to keep time for one minute

Load the backpack sprayer on your back and walk at your normal pace for one minute and mark the end point. (You do not have to activate the sprayer)

Measure the distance that you walked in feet

Do math: feet walked in one minute times swath width (in feet)
Record footage number:

4. Compute the gallons per acre = $\frac{\text{Gallon/minute} \times 43560 \text{ square feet/acre}}{\text{Square feet/minute}}$

