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## Calibrating a Backpack Sprayer

Here is a simple method of calibrating a backpack sprayer for use in many operations. The most important part is to find out how much water per acre a backpack is putting out which is a function of walking speed, pumping pressure, and swath width. Then you can know how much chemical to add per backpack to equal the right amount of product per acre.

### The no math method

- Step 1: Lay out an area exactly 18.5 feet by 18.5 feet. Spray as you would normally in that area only and count the seconds it takes to cover that area.
- Step 2: Spray into a bucket or container for the same amount of seconds.
- Step 3: Measure the amount of ounces sprayed in that time.
- Step 4: That amount of ounces equals the gallons of water per acre sprayed!

Example: It takes 9 seconds to spray the measured area, 9 seconds of spraying into a bucket is 13 ounces, then the operator is spraying out 13 gallons of water per acre.

**Last Step:** How much chemical do I put in my backpack?

When you know how many gallons of water per acre you are spraying, then you can calculate how much product to put into your backpack!

Example A: You determined that your backpack is putting out 13 gallons of water per acre, and your backpack holds 3 gallons.

- Step 1: Divide 3 by 13 to equal 0.23 acres per backpack.
- Step 2: Determine rate per acre you want to spray (ex. 3 Ounces OUST XP per acre)
- Step 3: Multiply those ounces by the fraction of the acre per backpack.  
 $3 \text{ oz} \times 0.23 \text{ acres} = 0.7 \text{ oz by weight per 3 gallon backpack.}$

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