

## SPRAYER CALIBRATION

### BACKPACK AND SMALL HAND SPRAYERS

1. Measure out a plot 18.5 feet wide by 18.5 feet long.
2. Spray the plot uniformly with water while recording the number of seconds required to spray the plot.
3. Spray into a bucket for the same number of seconds.
4. Measure the collected volume of water in ounces.
5. The number of ounces collected equals the number of gallons per acre (GPA) the sprayer is delivering.

### HAND-HELD SPRAYERS

1. Mark off a large calibration area (for example, a 500 square foot area could be an area 10 feet wide by 50 feet long).
2. Spray the plot uniformly with water while recording the number of seconds.
3. Spray into a closed container for the same amount of time. Be sure to use a container with a small opening to avoid splashing the water.
4. Measure the amount of water collected.
5. Calculate the gallons per acre (GPA) by:
  - a. Divide 43,560 by the square footage of your plot.
  - b. Multiply the result by the amount collected.
  - c. The result is the GPA of your sprayer.

*For example: if  $\frac{3}{4}$  of a gallon was sprayed into the container in the same time it took to spray 500 square feet, then...  $(43,560/500) \times .75$  gallon = 65 gallons per acre.*

FOR GREATER ACCURACY, REPEAT THE TEST.

Some herbicide labels will specify a percent solution of use in hand-held sprayers. The following chart provides mixing instructions to obtain solutions of varying percent concentrations.

	% concentration of herbicide from product labeling				
	0.5%	1.0%	1.5%	2.0%	5.0%
Gallons of tank	Amount of herbicide to add in fluid ounces				
1	.6	1.3	1.9	2.6	6.4
2	1.3	2.6	3.8	5.1	12.8
5	3.2	6.4	9.6	12.8	32
10	6.4	12.8	19.2	25.6	64
100	64	128	192	256	640

Conversions of liquid measures:

1 gallon	128 fluid ounces
1 quart	32 fluid ounces
1 pint	16 fluid ounces
1 tablespoon	3 teaspoons
16 tablespoons	1 cup
1 fluid ounce	2 tablespoons
1 fluid ounce	6 teaspoons