

# Sprayer Calibration

## *No Math Version!*

- Step 1:** Establish a calibration plot that is exactly: 18.5 feet wide x 18.5 feet long
- Step 2:** Spray the calibration plot uniformly with water, noting the number of seconds required: Time Required = \_\_\_\_\_ seconds.
- Step 3:** Spray into a bucket for same number of seconds.
- Step 4:** Measure the number of ounces of water in the bucket:  
Volume sprayed = \_\_\_\_\_ ounces
- Step 5:** The number of ounces collected from the bucket is equal to the number of gallons per acre the sprayer is delivering: Gallons Per Acre (GPA) = \_\_\_\_\_

### *Adding the Correct Amount of Herbicide to Tank for Liquid Herbicide Formulations*

- Step 6:** Record sprayer output in gallons/acre (calculated from Step 5).  
Output (volume) = \_\_\_\_\_ GPA
- Step 7:** Determine volume of full spray tank.  
Tank volume = \_\_\_\_\_ gallons
- Step 8:** From the herbicide label determine amount of herbicide concentrate to apply per acre.  
\_\_\_\_\_ Herbicide per Acre (quarts or pints)
- Step 9:** Determine the amount of herbicide to add to each gallon based on the chart below.
- Step 10:** Calculate the amount of herbicide to add to each tank.  
\_\_\_\_\_ Amount of herbicide/gallon x \_\_\_\_\_ number of gallons in a tank =  
\_\_\_\_\_ Total amount of herbicide to add to a tank.

Spray Volume Gal. / A	Amount of Herbicide to Add to Each Gallon Recommended Herbicide Rate/Acre				
	1 pint	1 quart	2 quarts	3 quarts	4quarts
15	6 tsp	2 fl oz.	4 fl oz.	6.25 fl oz.	8.5 fl oz.
20	5 tsp	10 tsp	3.25 fl oz.	4.75 fl oz.	6.33 fl oz.
30	3 tsp	6 tsp	2 fl oz.	3.25 fl oz.	4.25 fl oz.
40	2.33 tsp	4.75 tsp	1.66 fl oz.	2.33 fl oz.	3.25 fl oz.
50	2 tsp	3.75 tsp	1.25 fl oz.	2 fl oz.	2.5 fl oz.
60	1.66 tsp	3.25 tsp	6.33 tsp	1.66 fl oz.	2 fl oz.
70	1.33 tsp	2.75 tsp	5.5 tsp	1.33 fl oz.	1.75 fl oz.
80	1.25 tsp	2.33 tsp	4.75 tsp	7.25 tsp	9.5 tsp
90	1 tsp	2 tsp	4.25 tsp	6.33 tsp	8.5 tsp
100	1 tsp	2 tsp	3.75 tsp	5.75 tsp	7.66 tsp
120	0.75 tsp	1.5 tsp	3.0 tsp	4.75 tsp	6 tsp

**Example:** Assume that the calibration of your spryer (Steps 1 – 5) yields an output of 30 GPA and your sprayer holds 3 gallons. Your herbicide label for the target weed species dictates a herbicide application rate of 1 pint/acre. Go to the chart and read across from 30 Gal. / A to the 1-pint column – the amount of herbicide to add per gallon is 3 tsp in the chart. Since your sprayer holds 3 gallons of total solution, you would add 9 tsp of herbicide in addition to the water in each tank.

**tsp** = teaspoons

**TBS** = tablespoons

**fl oz.** = fluid ounces

#### Liquid Conversions:

3 teaspoons = 1 tablespoon

8 fl ounces = 1 cup

2 tablespoons = 1 fluid ounce

1 cup = 16 tablespoons