

Single Nozzle Sprayer Calibration

It is critical to know the output of a sprayer in order to be accurate in adding an herbicide to the tank. A quick and easy method:

1. Measure a calibration plot that is exactly 18.5 ft X 18.5 ft (128th of an acre).
2. Spray the plot uniformly with water, keeping the sprayer pressure constant. Note the number of seconds required.
3. Spray into a bucket for the same number of seconds, again keeping the sprayer pressure constant.
4. Measure the number of ounces of water in the bucket.
5. The number of ounces of water measured from the bucket is equal to the number of gallons per acre (gpa) the sprayer is delivering.

Find GPA in left column and desired application rate/acre in bold. The intersection of this row and column is the volume of herbicide (ounces or teaspoons) to add to each gallon of water in a spray tank.

| Spray volume (gpa) | Amount of Herbicide to Add to Each Gallon of Water | | | | | | |
|--------------------|--|---------|------------|------------|-------------|-------------|-------------|
| | Recommended Herbicide Rate/Acre | | | | | | |
| | 4 oz | 8 oz | 1 Pint | 1 Quart | 2 Quarts | 3 Quarts | 4 Quarts |
| 15 | 1 ½ tsp | *3 tsp | 1 fl oz | 2 fl oz | 4 fl oz | 6 ¼ fl oz | 8 ½ fl oz |
| 20 | 1 ¼ tsp | 2 ½ tsp | 0.83 fl oz | 1.67 fl oz | 3 ¼ fl oz | 4 ¾ fl oz | 6 1/3 fl oz |
| 30 | ¾ tsp | 1 ½ tsp | 0.5 fl oz | 1 fl oz | 2 fl oz | 3 ¼ fl oz | 4 ¼ fl oz |
| 40 | 0.6 tsp | 1 ¼ tsp | 0.42 fl oz | 0.83 fl oz | 1 2/3 fl oz | 2 1/3 fl oz | 3 ¼ fl oz |
| 50 | ½ tsp | 1 tsp | 0.33 fl oz | 0.63 fl oz | 1 ¼ fl oz | 2 fl oz | 2 ½ fl oz |
| 60 | 0.4 tsp | 0.8 tsp | 0.28 fl oz | 0.55 fl oz | 1.1 fl oz | 1 2/3 fl oz | 2 fl oz |
| 70 | 1/3 tsp | 2/3 tsp | 0.22 fl oz | 0.44 fl oz | 0.88 fl oz | 1 1/3 fl oz | 1 ¾ fl oz |
| 80 | 0.3 tsp | 0.6 tsp | 1 ¼ tsp | 2 1/3 tsp | 4 ¾ tsp | 7 ¼ tsp | 9 ½ tsp |
| 90 | ¼ tsp | ½ tsp | 1 tsp | 2 tsp | 4 ¼ tsp | 6 1/3 tsp | 8 ½ tsp |

* 6 tsp (teaspoon) = 1.0 oz (ounce)

16 oz = 1 pint

2 pints = 1 quart

**Colorado
State
University**

Extension