

Calibrating a garden sprayer is important to make sure that you put out the correct amount of any pesticide or fertilizer. Over application of these products can not only be harmful to plants, insects and people it is also against the law.

To begin you must determine your band width or nozzle spacing. Band width means the width of the area sprayed in one pass. The band width will be determined by how far from the ground you hold the nozzle. Once you determine the band width you can use the following table to determine a distance to travel.

Band width (inches)	Distance (feet)
12	340
24	170
36	113

Fill your sprayer with water only and record the number of seconds it takes for you to travel the predetermined distance. Next you need to collect the spray from the water for that amount of time and record it in fluid ounces. If it took you 20 seconds to walk the distance then you collect the spray for 20 seconds. The number of fl. oz. collected equals the gallons per acre (GPA).

To determine the amount of chemical to add to the spray tank, divide the capacity of the tank by the number of gallons of water per acre (GPA). This will allow you to determine the fraction of an acre that can be covered with a tankful of spray. For example, if you have a 3 gal. tank and are putting out 16 GPA you can cover 0.188 acres with one tank (this equals about 8000 sq. ft.).

Finally, multiply the application rate of the product per acre times the fraction of the acre covered per tank and add that amount of chemical to the sprayer tank. For example if the recommendation is for 2 qts. of herbicide per acre and you can treat 0.188 acres with your tank you need to multiply 2 qt. (64 fl. oz) times 0.188 acres per tank, which would equal 12 fl. oz. per tank. Often application rates are given in ounces per gallon of water. If this is the case you should realize that in most cases a gallon of water should cover approximately 1000 sq. ft. That would be an area 10 ft. by 100 ft., or 20 ft by 50 ft.