Frequently asked questions

Q: How do I clean my sprayer so the beginning of the season, do I have to do it again? A: Yes. It is important to calibrate your sprayer every time you use it to ensure it is in proper working order.

Q: How do I know how much pesticide mixture I need for a spot application? A: You can determine how much pesticide product to apply by following the procedure as described in Home PEST brochure #6, "Mixing Pesticides." To find out how to calibrate a drop or rotary spreader, refer to Home PEST brochure #8 - Hand Sprayer Calibration.

To find out how to calibrate a drop or rotary spreader, refer to Home PEST brochure #8, "Sprayer Calibration." See Frequently asked Questions later in this brochure.

#8 - Hand Sprayer Calibration

What is Calibration? Equipment calibration is a process that ensures that you are applying the correct amount of a pesticide uniformly over the target area. It involves adjusting your equipment as well as calculating its delivery rate (output). Improper calibration often causes unsatisfactory pest control. You should calibrate your equipment to:

- Make sure you apply the correct amount of pesticide to control pests without the injury that over-applications cause.
- Ensure a uniform application by using properly adjusted and working equipment.
- More safely by buying only as much pesticide as you need.

Advantages
- Good for spot treatments
- Easy to use

Disadvantages
- Difficult to maintain uniform operating pressure
- Cannot make uniform application because of changes in pressure and wind speed

Before You Calibrate
When calibrating a hand sprayer, check that it is in proper working condition.

- Check all hose connections for leaks
- Be sure the sprayer’s cover gives a tight fit
- Check all nozzles and, if necessary, replace them
- Be sure that the nozzle opening is not restricted
- Use the correct nozzle for the intended application rate
- Be sure the equipment is in good working order

The calibration procedure on the next panel is for a broadcast application (uniform application of pest control measures to an entire area) to spray an area such as a lawn or garden. When making spot applications (directed at individual plants or groups of plants), see Frequently Asked Questions later in this brochure.

To calculate the volume of unit mixture needed per gallon of water and per tankful:

1. Measure and add the necessary amount of water needed to refill the sprayer to the same level that you used when you filled the sprayer with water to a level that is 6 inches below the fill line. 
2. Determine how much water was used by subtracting the amount of water needed to refill the sprayer to the level that you determined. 
3. Spray the pre-measured area using the same nozzle, pressure, and spreading speed that you will use when applying the pesticide. 
4. Measure and record the delivery rate and coverage.

To calculate the total amount of pesticide you'll need to cover the intended area:

1. Multiply the volume of the pesticide product (one tankful) by the number of tankfuls you will need to spray 1000 square feet. Most likely, this is around 2 tankfuls.

2. Check the label for the minimum volume to apply per 1000 square feet. If the volume is 500 square feet, then you should use 1 tankful; repeat Steps 2-5 but decrease your walking speed in Step 3. 
3. Determine the amount of pesticide needed for each gallon of water and per tankful.
4. Multiply this amount by your tank capacity.

5. How many tankfuls, and how much pesticide, will you need to cover your lawn?

To determine the total number of tankfuls and the total amount of pesticide you’ll need to cover the intended area:

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2. Multiply this amount by your tank capacity.

3. How many tankfuls, and how much pesticide, will you need to cover your lawn?

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