

Calibration of Backpack and Canister Sprayers

Always make sure the sprayer is empty and clean prior to calibration. Cleaning and neutralizing previous pesticide can be accomplished by filling sprayer ¼ full of water and adding 4 ounces of household chloride. Shake well and spray out over undesired area. **DO NOT DISPOSE INTO WATER OR SEWER SYSTEM.** Rinse with clean water and you are ready for calibration.

Calibration should be performed with clean water.

1. Measure an area of 31.5 X 31.5 feet. This will equal 1000 ft².
2. Fill sprayer with clean water.
3. Spray pre-measured area. Keep track of the following:
 - a. Time that it takes to uniformly spray area.
 - b. Pattern of spraying, make sure that spray patterns overlap.
4. Spray into container for the same amount of time that it took to uniformly spray pre-measured area.
5. Measure amount of liquid caught into container.
6. Use the following formulas to determine rate of application:

$$\begin{array}{l} \text{AREA (length X width)} \div 43,560 = \underline{\hspace{2cm}} \text{ acre (A) (43,560ft}^2 = 1 \text{ acre)} \\ 1000\text{ft}^2 \div 43,560 = \underline{\hspace{2cm}} \text{ 0.02295 acre} \end{array}$$

Seconds Traveled _____ seconds (B)

Amount Caught _____ Gallons (C)

128 ounces = 1 gallon

C _____ ÷ A _____ = _____ GALLONS/ACRE

To figure how much pesticide to add to your sprayer, take sprayer size ÷ gal/ac, then take that figure and multiply by recommended rate on pesticide label.

Example: measured gal/ac = 70, and pesticide label suggest 1 qt/acre

3 gallon backpack ÷ 70 = 0.0429 X 32 ounces = 1.37 ounces or 8 teaspoons of pesticide

1.0 gallon = 128 ounces = 4 quarts = 8 pints = 16 cups 1.0 cup = 8 ounces

1.0 ounce = 2 tablespoons = 6 teaspoons, one tablespoon = 3 teaspoons or 15 milliliters

With most pesticides *spray until vegetation is wet*, **NOT** until spray is running off leaves.

Pesticides are labeled according to manufactures years of research, adding more pesticide to tank to get a **BETTER** kill will do nothing more than spend your money. With

herbicides, a plant will only absorb as much material as needed to cause damage, that plant then shuts down and will not absorb any additional material. That additional material will only go onto the ground and be wasted.

ALWAYS READ AND FOLLOW MANUFACTURES LABELLED

RECOMMENDATIONS for additional information seek professional help; we are all here to keep our environment clean and safe to all forms of life.

Date _____

Name _____

Organization _____