

An array of sprayers for pesticides

By Ralph E. Mitchell

Here is a scenario that you may have experienced before: You have exhausted the cultural, non-chemical methods for controlling a certain pest without success and have now moved to the next course of action and identified a pesticide that will do the job. You have read the pesticide label and know how and when to apply it. Now you must choose a sprayer and know how to use it. There are several types to choose from available at any local garden center. Selection of sprayers will be based on a design that will do the job, be durable, be easy and convenient to fill, and user-friendly to operate.

Small hand sprayers or compression, pump-up sprayers are common pieces of equipment for small jobs around the yard. These small units range from one quart to several gallons in size, are very economical, simple in design and use and are easy to clean and store. The nozzle tips are adjustable so that you can apply anything from a fine mist to coarse droplets to the target site. Always follow pesticide label directions as it is the law. Also, make sure to calibrate your sprayer so that you are delivering the proper amount of pesticide in a given area.

Another popular spraying unit is the hose-end sprayer. There are three variations of this piece of equipment. One type of hose-end sprayer comes with the pesticide, prepackaged and pre-measured, all ready to use. Water is passed through a tube to the hose opening. Pressurized water mixes with the pesticide concentrate and carries the proper mix onto the target. Pre-filled hose-end sprayers can only be used with that particular pesticide and cannot be reused. Another type of hose-end sprayer requires that you measure and pre-mix a concentrated pesticide. Various amounts can be mixed usually in gallon increments.

A final type of hose-end sprayer has a dial calibration device built in. This is helpful as you can set the dial according to the recommended rate on the label. The label will provide the directions for proper mixing. With all hose-end sprayers, if the water pressure is sufficient, the stream of pesticide can reach up into medium-sized trees. This type of sprayer is inexpensive and easy to use. The hose-end's versatility and light weight are also noted advantages.

Wipe-on applicators are another type of "sprayer" which provides very precise application of herbicides to weeds. Types include rope wicks, sponge wicks and carpet rollers. The herbicide is gravity fed through a wand to the application point. A non-selective herbicide such as glyphosate is often used in this type of wipe-on equipment. The applicator needs to wipe on the offending weed only with no off-target drips. This item is very easy to use, there is no drift of the chemical and only small amounts of the material are used. One of the disadvantages is that several passes may be necessary for proper and complete coverage.

The proper application of pesticides is so important. Too much or too little can cause damage to the target plants or not properly control the pest. Using the proper equipment must also be addressed for effective pest management. For more information on home pesticide application equipment, please call our Master Gardener volunteers on the Plant Lifeline on Mondays, Wednesdays and Fridays from 1 to 4 pm at 764-4340 for gardening help and insight into their role as an Extension volunteer.

Resources:

McCarty, L. B. (1995) Sprayers for Homeowners, The University of Florida Cooperative Extension Service, IFAS.

Fishel, F. M. (2009) Using Your Handheld Lawn and Garden Sprayer. The University of Florida Extension Service, IFAS.