A handy gadget for care of small landscape areas

Knapsack sprayers allow landscape managers of small areas to apply liquid pesticides where dry products were previously used.

by Patrick G. Tvrdy

Knapsack sprayers can be a grounds manager’s solution to many pesticide application problems. They are economical and efficient when used for specific tasks.

For example, a 40-degree spray angle tip can be used to deliver a total vegetation control herbicide in a three-inch-wide band along a sidewalk. The 40-degree tip, as opposed to an 80-degree tip, reduces the chances of a significant change in the spray pattern through an inadvertent but small change in nozzle height.

The function of any sprayer is to deliver the correct amount of chemical to a particular target. To operate one efficiently a user must calculate operating pressure, nozzle selection, recommended carrier volume, and chemical rate.

The right pressure

Operating pressure is vital in chemical delivery. Too much pressure and the nozzle creates a pattern composed of many small, fine particles. These particles drift to unintended areas and threaten desirable plants and/or animals.

Too little pressure and the nozzle doesn’t penetrate the plant canopy. The pesticide doesn’t reach the target pest.

The addition of a pressure regulator to the knapsack sprayer delivers the chemical at a constant rate, increases the accuracy of spraying, and in some cases, reduces constant pumping of the spray unit.

Nozzle selection

Don’t overlook nozzle adaptability of a knapsack spray unit you’re considering. Some come with an adjustable nozzle permanently attached to the end of the spray wand. These sprayers limit methods of operation. A user’s options are decreased.

Beware of units which only accommodate tips designed specifically for those units. Replacement nozzles may be hard to find and the range of patterns and gallons-per-minute delivery rates may not suit your job.

The nozzles needed for your job depend upon the types of chemicals, gallonages, spray patterns, and spray widths.

For example, a 40-degree spray angle tip...
Now is the season to feed those hungry trees! Use Green Garde® Root Feeder and JD9-C Spray Gun attachment make quick and simple. Rugged; it features a made-steel pole and case for easy of use and period of time. JD9-C Spray Gun; this trigger controlled application and to feed more trees in a shorter time.

Garde Root Feeder-Spray Gun to withstand heavy seasonal use your business in the green. Now from your Green Garde distributor start your season the professional way, Green Garde Root Feeder and JD9-C Spray Gun.

**GADGETS from page 34**

A single tip can be used to deliver a total vegetation control herbicide in a three-inch-wide band along a sidewalk. The 40-degree tip, as opposed to an 80-degree tip, reduces the chances of a significant change in the spray pattern through an inadvertent but small change in nozzle height.

**Beware of units which only accommodate tips designed specifically for those units. Replacement nozzles may be hard to find...**

However, in some instances, a 80-degree tip is advantageous. With it an operator can apply a chemical in a 12-inch-wide band along a fence line without having to hold the wand so high that spray blows off target.

**Carrier volume**

Carrier volume is the amount of liquid needed to move a pesticide from the sprayer to the target. It is determined by operating pressure, nozzle selection, type of carrier, label recommendations, and the operator's walking pace.

Spray carrier volume varies among products. Having nozzles with several different gallons-per-minute delivery rates equip an operator to meet a manufacturer's recommendations for each particular chemical.

For example, if a sprayer is designed to deliver 30 gallons to the acre, and a 15-gallon-per-acre chemical is used, the operator, by simply changing the nozzle, can spray twice the area at the same volume. Correspondingly, the initial area could be covered with half the volume.

**Other tips**

Knapsack sprayer users should also consider:

- **Chemical rate**: The chemical rate depends upon the manufacturer's labeled recommendation for their product. And the desired end result.

- **Proper set-up**: Years ago, a user performed complicated math formulations to determine a sprayer's carrier volume and chemical rate.

The cumbersome formulas often led to over-application. This increased cost.