

Review 11. E9 Application Equipment



Read the label for any applicable restrictions to the use of specific application equipment.

Most pesticides are applied through sprayers

Low pressure sprayers are the most common sprayer for residential and commercial.

Low/moderate pressure range 15-80 psi. Used on large turf areas e.g., golf courses, sports fields, general grounds.

Powered sprays deliver more consistent pressures than backpack or handheld sprayers

High pressure sprayers are used on shade trees, ornamental plants and orchards.

Wands are used for accurate low-volume spot treatments on ornamentals and smaller turf areas.

The two most commonly used spreaders are rotary and drop types.

Rotary spreaders are less precise than drop spreaders.

Heavy granules travel further than light granular particles in a rotary spreader.

Tree injection is the treatment of trees with pesticides by delivering systemic pesticides, usually insecticides, through a hole drilled through the active xylem of the tree.

In a soil drench tree application a shallow trench is made around the base of the tree. This will help prevent the pesticide from moving away from the target.

Chemigation the application of any chemical through an irrigation system.

Advantages of Chemigation include less application equipment and less labor.

Volume of pesticide e.g., fluid ounces for liquids; ounces or pounds for granular.

Unit of area e.g., square feet, 1000 square feet, acre

Volume per unit area amount of material applied over a set area.

Calibration the practice of verifying and/or adjusting fertilizer or pesticide equipment to accurately apply a predetermined amount of product per unit area.

Apply drenches and injections for trees and shrubs based on diameter at breast height (DBH) measured at 4 ½ feet for an adult (1.3 m).

Application Equipment and Techniques

Factors that affect calibration

| Factor | Application Rate |
|---------------------|------------------------------------|
| Speed | Faster = lower rate |
| Pressure | Higher = higher rate |
| Height above ground | Lower = higher rate |
| Droplet size | Higher pressure = smaller droplets |

Misapplication Placement of pesticide or fertilizer beyond the target area or in improper amounts. Misapplication is illegal.