



MASTER GARDENER PROGRAM

THINKING SAFE AND GREEN



**AGRICULTURE AND NATURAL RESOURCES
ENVIRONMENTAL HEALTH AND SAFETY**

#10

BACKPACK PESTICIDE SPRAYER SAFETY

Information given here is intended for use by program representatives, master gardeners, and those they train.



Backpack pesticide sprayers are useful equipment for precisely applying insecticides and herbicides over relatively small areas. Typically, backpack pesticide sprayers hold from four to six gallons of mixed water and chemicals and therefore, fully loaded sprayers weigh from 35 to over 50 pounds. Safe and effective use of a backpack pesticide sprayer is dependent upon accurately applying the proper amount of pesticide.

Pre-Use Activities

- Thoroughly review and understand information provided in the backpack pesticide sprayer operator's manual with particular attention given to descriptions of safety procedures.
- Before using, always inspect the backpack pesticide sprayer tank for damage or disrepair and make sure sprayer hoses, regulator, wand, and nozzle(s) are clean and functioning properly. Pay particular attention for leaks from the sprayer and attachments.
- If a backpack pesticide sprayer fails the pre-use inspection, remove the sprayer from use.

Operating Precautions

- Always wear appropriate personal protection equipment, including eye protection, chemical-resistant gloves, and coveralls and when necessary, chemical-resistant clothing and a respirator.
- Follow instructions on the pesticide label when mixing pesticides for use in a backpack sprayer.
- Pour the pesticide mixture through the filter basket when loading the backpack sprayer tank.
- Due to the weight of a loaded backpack spray, be careful when walking or bending. Look where you are stepping and always bend at the knees.
- Due to their inherent hazardous nature, never use flammable liquids, acids, or caustic chemicals such as bleach in a backpack sprayer.
- Relieve sprayer tank pressure through the shut-off valve and spray wand before adjusting the pressure regulation valve or control knob.
- Apply pesticides at the rates recommended by the manufacturer.
- Never point the spray wand in the direction of people or animals.
- Spray tanks, hoses, regulator, wand, and nozzle(s) shall be rinsed thoroughly after each use. Rinsate (and pesticide containers) shall be disposed of properly. A description or proper disposal methods is provided in the Department of Pesticide Regulation Pesticide Safety Information sheet A-2 entitled Storing, Moving, and Disposing of Pesticides on Farms available online at: <http://www.cdpr.ca.gov/docs/whs/pdf/hs711.pdf>.
- Following use, store the backpack pesticide sprayer out of direct sunlight to prevent ultraviolet radiation damage.