

NATIONAL PESTICIDE APPLICATOR CERTIFICATION

CORE MANUAL



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CLEANING AND DISPOSING OF PESTICIDE CONTAINERS

There are two types of pesticide containers: **rinsable** and **non-rinsable**. Rinse empty rinsable plastic containers immediately because the residues can dry quickly and become difficult to remove. When rinsing, add the rinsate to the spray tank as part of the pesticide mixing process. **Triple-rinsing** or **pressure-rinsing** empty pesticide containers allows them to be disposed of as non-hazardous waste. Clearly mark and puncture rinsed containers and safely store them for later recycling or disposal.



Triple-rinse containers.

Adapted from Penn State *Pesticide Education Manual*

Non-rinsable containers include bags and boxes of dry pesticides and aerosol cans and cylinders. Empty them as completely as possible. Some containers are designed to be returned to the pesticide dealer or manufacturer for refilling.

If empty pesticide containers cannot be refilled, reconditioned, recycled, or returned to the manufacturer, crush, break, or puncture them to make them unusable except in the case of aerosol cans. Do not leave pesticide

containers unattended at the mixing, loading, or application site—return them to a secured storage area until they can be recycled or disposed of properly. Dispose of containers in accordance with label directions and with federal, state, and local laws and regulations. Do not reuse pesticide containers or tamper with containers designed to be returned and refilled. Check with your state, territorial, or tribal pesticide regulatory agency to determine if your area has a container recycling program.

Container Rinsing Procedures

To triple-rinse a container, wear protective clothing and follow these steps:

1. Allow the concentrate to drain from the empty pesticide container for 30 seconds.
2. Fill approximately 20 percent of the container volume with water, replace the lid, and shake the container so all the interior surfaces are rinsed.
3. Drain the rinse water into the spray tank, allowing it to drain for at least 30 seconds.
4. Repeat the procedure two more times.

Pressure-rinsing is an effective way to make a pesticide container non-hazardous. Pressure-rinsing requires the use of a special nozzle that directs water under high pressure into the container. Check with your chemical dealer for availability of these nozzles. Studies have indicated that pressure-rinsing is as effective as triple-rinsing and it can take less time. Puncturing the container with the rinse nozzle also renders the container unusable.

To pressure rinse a container, wear



Larry Schulze, University of Nebraska

A pesticide container recycling center.



Purdue Pesticide Programs

Pressure rinsing directs high-pressure water into the container.

protective clothing, especially gloves and goggles or a faceshield, and follow these steps:

1. Allow the concentrate to drain from the empty pesticide container for 30 seconds.
 2. While holding the container over the spray tank in a draining position, push the pointed pressure-
3. Pressure-rinse the container for at least 30 seconds, draining the rinse water directly into the spray tank.
 4. Thoroughly rinse the container cap with a slower flow of water, capturing the rinse water in the spray tank.

APPLYING PESTICIDES CORRECTLY

Applicators have several important responsibilities when applying pesticides—protecting themselves, others, the environment, and making sure the pesticide is applied correctly. Applicators must be sure to use the proper PPE and follow the correct application procedures.

Personal Protective Equipment (PPE)

By law, applicators must wear the PPE and other clothing the pesticide labeling requires. Consider using additional protection for some types of pesticide application tasks.

Hand-carried and backpack applications—Exposure is quite likely to occur when pesticides are applied using hand-held application equipment or dust shakers. Dripping or partially clogged nozzles, leaky hoses, or loose equipment connections are other potential sources of exposure. Consider wearing extra PPE to protect the areas of your body that will be in contact with the equipment.

Many applications performed while on foot cause the applicator to walk into the path of the pesticide being applied. Whenever possible, apply pesticides so you are backing out of the treated area. If you must walk into the path of the pesticide, consider wearing shin-high or knee-high rubber boots, or other protective footwear with chemical-resistant pants. Wear appropriate protective clothing and equipment when entering treated areas to fix clogged nozzles or other malfunctioning equipment parts.

High-exposure applications—

Certain types of pesticide applications pose a special risk because they may expose the applicator to large amounts of pesticide. These include:

- Mist blower or airblast sprayers.
- Aerosol and fog generators.
- High-pressure sprayers and power dusters.
- Equipment that directs applications over your head, such as to tree canopies or roof eaves.



M.J. Weaver, Virginia Tech Pesticide Programs

Wear appropriate protective PPE whenever you must walk into the path of a pesticide application.



Tom Bowman, Virginia Tech Pesticide Programs

This high pressure spray application in a Christmas tree plantation requires more PPE than the label has listed.