

PESTICIDE CONTAINER DISPOSAL IN WASHINGTON STATE

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Disposal of empty pesticide containers has historically consisted of rinsing and burial in on-farm sites or in local landfills. Worst case situations included stacking of empty containers in remote areas of the farm or dumping in ravines. In the recent past, burning of limited amounts of empty plastic containers was allowed, but this is no longer legal according to state clean air regulations.

About 250,000 empty containers are generated in Washington annually. Most are legally deposited in approved landfill sites. Once an empty container is triple-rinsed, at the minimum, federal law considers the container nonhazardous waste. However, many landfills are becoming reluctant to accept empty containers and some have enacted special fees for their disposal.

Agrichemical manufacturers are aware of the limited disposal options for containers and are responding with some new ideas. Returnable, refillable containers are now in use. These are durable stainless steel or plastic, designed to withstand many reuse cycles. Capacities range from five to over 300 gallons. Similar systems are being marketed for granular pesticides. Water soluble pouches and water dispersible tablets are also in use and have potential to ease the container disposal problem. Despite these advances in packaging and formulation, industry experts predict that nonrefillable plastic containers will be with us for more than the next ten years.

The Columbia Basin Fieldmen and Dealers Association began a collection and recycling program in 1988 for metal containers. Since then, over 30 tons of steel have been recycled for use in items such as fence posts and concrete reinforcing bars. The annual fall event, held at multiple Columbia Basin sites, has been operated by volunteers from the Association and local agrichemical distributors. Collection of plastic containers began for the first time in Washington during the 1991 activity.

A collection emphasizing plastic containers was held in five Columbia Basin sites this spring under the sponsorship of the Washington Pest Consultants Association. About two tons of plastic was collected and chipped for shipment to a recycler in Missouri. The plastic recycling program is part of a nationwide effort by the Agricultural Container Research Council, an organization of 24 major manufacturers and distributors.

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Washington is one of about 30 states participating in the program. The collected plastic is processed by the recycler and utilized for the remanufacture of pesticide containers, drainage pipe, highway sign posts or as an energy source for concrete production.

The Washington Pest Consultants Association has recently received a grant from the Washington State Department of Agriculture to operate an expanded plastic container recycling program in several areas of the state in 1993. In addition to a number of planned sites in agricultural areas, collections will be offered in conjunction with the Department's waste pesticide collection program.

Inadequately prepared containers are the largest difficulty for both the potential participant and for those operating the collection. Proper preparation is absolutely essential to avoid frustration for both parties. Planning to prepare for recycling must begin before the container is opened. Simply put, plastic containers must be clean and dry, inside and out with no apparent odor. Steps to adequately decontaminate containers include:

1. Purchase a pressure rinse nozzle for easiest and best rinsing. Drain the container into the spray tank in a vertical position. Push the rinse nozzle through the container at or near the bottom. Rinse the container for 30 seconds or until the rinsate is clear, rotating the nozzle to ensure water reaches all surfaces. Rinsate should drain into the spray tank.
2. To multiple rinse without a rinse nozzle, drain the container into the tank for an extra 30 seconds. Fill the container with water to 20 or 25% of full volume. Replace the cap and rotate the container such that water contacts all surfaces. Drain the container into the spray tank for 30 seconds. Repeat the process at least two more times until rinsate is clear and container is clean.
3. The exterior of the container must be clean as well. Wash any spilled agrichemical from the container into the spray tank.
4. Containers which are stained, such as occurs with the yellow, dinitroaniline pesticides, can be recycled. Stains are acceptable, residues are not.
5. Remove the foil seal from the neck of the container. It cannot be accepted for recycling with the seal attached. A small amount of foil remaining upon the neck is acceptable.
6. Remove and dispose of slip-off plastic labels and plastic caps; these can't be recycled with the container. Glued-on labels may remain on the container.
7. Containers should be punctured or cut in half to facilitate drainage. To be accepted for recycling they must be dry inside and out.

The Washington Pest Consultants Association hopes to recycle 10% or 25,000 of the containers sold in our state in 1993. Last year 800,000 pounds of plastic were recycled nationally. The Agricultural Container Research Council hopes to collect about 5 million pounds next year. This program represents a positive, proactive approach to dealing with a disposal problem in an environmentally sound manner. Participation by local agrichemical and agricultural organization volunteers can promote a very positive image for a sometimes criticized industry. To be successful, individual growers must take the necessary steps to become involved well before expected collection dates. Dealerships can help by reviewing the procedures with growers, by stocking rinse nozzles for sale and showing growers how to use them properly.