

## Cleaning and Storage of Pesticide Sprayers

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The pesticide sprayer is one of the most important pieces of farm equipment. Consequently, it requires special care and attention prior to winter storage. By properly cleaning the sprayer before winter storage, you may increase its productive life and reduce the chance of pesticide contamination in the future.

Generally, 2 pounds of a household, grease-cutting detergent in 25 gallons of water will clean sprayers of most pesticide residues. Certain pesticide labels recommend the use of commercially prepared cleaning agents. Examples of these include Loveland Spray Tank Cleaner and Nutra-Sol.

However, residues from such herbicides as 2,4-D and dicamba (Banvel) are harder to remove and require special cleaning agents. The recommended cleaning agents for these products are summarized in the following table:

Formulation	Cleaning Agent/25 Gallons of Water
Salt/Amine	1 quart household ammonia
Ester	1 pound washing soda + 1 gallon kerosene + 1/2 pound of detergent

Spray equipment can be cleaned and flushed in the field if a source of fresh water is available. When washing the sprayer, **DO NOT** create standing puddles that might be accessible to children, pets, livestock, or wildlife. Sprayers should never be cleaned near wellheads, roads, and ditches. When the sprayer is cleaned and flushed in the field, the rinse water can be applied to the field where the product was intended to be used.

The following are the suggested sprayer cleaning procedures:

- 1) Clean chemical residues off the outside of the sprayer with a bristle brush, and then wash these areas with a detergent solution.
- 2) Fill the sprayer with clean water and then flush. Fill the tank with water and add the recommended cleaning agents.
- 3) Agitate the solution through the system for several minutes, then flush.
- 4) Remove the spray nozzles and flush the system twice more with clean water.
- 5) On the last flushing, add 2 gallons of light-weight oil to the rinse water. This will help form a protective coating inside the tank, pump, and other sprayer parts. Automotive



antifreeze should be used in place of the light-weight oil if the sprayer contains rubber parts.

- 6) Clean the nozzle tips and screens with a soft brush, such as a toothbrush, in a detergent solution. Metal nozzles should be stored in kerosene to prevent corrosion.
- 7) If possible, all hoses should be removed and stored around a circular object to prevent crease formation.
- 8) Once cleaned, the sprayer should be stored indoors or at the very least, covered with a weatherproof tarpaulin.

## References

1. Daum, D. R. "Its Time to Clean and Store Spraying Equipment." *Field Crop Newsletter*, The Pennsylvania State University, Sept. 1991.
2. Johnson, G. and R. Linn. "Maintaining, Cleaning, and Storing Ground Sprayer Equipment." Montana State University.
3. "How to Bed Down a Sprayer." *Pennsylvania Farmer*. Dec. 10, 1988, p. 9.

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