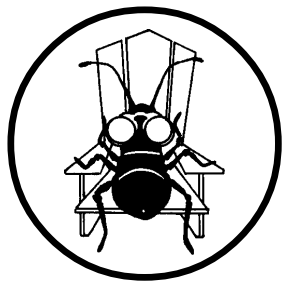


# Winterizing Your Sprayer



## Pest Watch

*Taking the time to properly store sprayers results in longer lasting equipment and safe, efficient application of pesticides.*

- *Clean it thoroughly*
- *Check for worn parts*
- *Remove pump*
- *Seal it from dirt*
- *Store it safely*

**A**nother season is coming to an end, and that means preparing equipment for storage. Taking the time to properly store sprayers results in longer lasting equipment and safe, efficient application of pesticides. Donald R. Daum (formerly with Penn State Extension, Ag. Engr.) and Thomas F. Reed, Regional Manager of TeeJet in Dillsburg, PA, offer the following five-point checklist for winterizing your sprayer.

1) Thoroughly clean the sprayer; drain it completely, especially the filters, pump, pressure regulator, selector valve, gauges, and any other fittings that may retain water. Cleaning solutions and methods for cleaning sprayers are presented in Table 1.

Nozzle tips and screens can be cleaned in a strong detergent solution or kerosene using a soft brush such as an old toothbrush. Remember, follow the same safety precautions during cleaning as for applications. Use a respirator, rubber

gloves, or other protective gear as may be directed by label instructions.

2) Check the sprayer for worn parts. List all components that need replacement and order the parts well before the next spraying season. Pay particular attention to nozzle spray tips. New spray tips produce uniform distribution when properly overlapped. Worn spray tips have a higher output with spray concentrated under each tip. Damaged spray tips have erratic output and can result in over-and under-application.

3) Before winter storage, remove the pump and follow the manufacturer's recommendations for storage.

4) Seal off any openings to prevent entry of dirt, debris, or rodents.

5) Store the sprayer where it will not be damaged by other equipment. Store polyethylene tanks under cover to prevent possible deterioration by sunlight. Store galvanized steel tanks indoors away from moisture to prevent rusting.

**Table 1. Cleaning solutions and methods for cleaning sprayers.**

Pesticide Used	25 Gallon Cleaning Solution	2.5 Gallon Cleaning Solution	Instructions
Hormone herbicides, salt or amine formulations (2,4-D, dicamba, MCPA)	1 qt. household ammonia	1/2 cup household ammonia	Thoroughly agitate, flush small amount through system, and let remainder stand in sprayer overnight. Flush and rinse.
	—or—	—or—	
	2 lbs. trisodium phosphate	1/4 lb. trisodium phosphate	
Other herbicides (atrazine, simazine, alachlor)	1/2 lb. fine activated charcoal and 1/2 cup powder detergent	2 tbsp. fine activated charcoal and 1-2 oz. powder detergent	Agitate, operate sprayer for 2 minutes, let remainder stand for 10 minutes, then flush through sprayer. Rinse.
	—or—	—or—	
	1/4 lb. powder detergent <sup>1</sup>	1 tbsp. powder detergent <sup>1</sup>	
Insecticides <sup>2</sup> and/or fungicides	1/4 lb. powder detergent <sup>1</sup>	1 tbsp. powder detergent <sup>1</sup>	Rinse with clean water before and after using sudsy solution.

<sup>1</sup>Liquid detergent may be substituted for powder detergent; mix at a rate to make a sudsy solution.  
<sup>2</sup>Organophosphate and carbamate insecticides may be detoxified by adding household ammonia to the cleaning solution (1 qt./25 gallons or 1/2 cup/2.5 gallons).