

Decontaminating and Storing Sprayers



The Machine Shop

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Sprayer Decontamination and Maintenance

Sprayers must be thoroughly decontaminated, inside and outside, after use. Regular maintenance of spraying equipment will prolong its life and ensure accurate trouble-free operation, enabling spraying to be done with the minimum loss of time and taking full advantage of favorable weather conditions.

Read the sprayer manufacturer's instructions before beginning to wash out a sprayer. Wear protective clothing appropriate to the pesticide which has been used, this may include an apron, rubber gloves, boots and face shield.

It is important to clean everything thoroughly, associated equipment such as mixers, the site where filling and mixing is done, and, of course, yourself.

Disposal of Pesticide Waste

Remember: cleaning up should be done in such a way that washings *do not* enter public sewers or any water courses, nor fields which have under-drainage and certainly not catchment areas for boreholes or wells.

The safe disposal of pesticide waste is a serious responsibility for sprayer operators. It is important, therefore, that everything should be done to keep to a minimum the amount of waste generated. Remember pesticide waste is of four types:

- concentrated products
- diluted pesticides, including washings
- empty containers and contaminated clothing
- other materials

Try to keep the volume of tank washings produced to a minimum. Special low volume washing systems are now available which comprise spinning nozzle(s), mounted in the tank. The device can be connected to a hose or water tank and water, after it has passed through the rotating nozzle(s) cascades down the inside of the tank walls.

Preparation for winter storage

1. Any spray liquid or contamination left in the tank should be disposed of correctly.
2. Remove tank drain plugs or open drain cock.
3. Hose down inside the tank and outside, including the tank top, scrub where necessary or use a special low volume washing system.
4. Replace drain plug.
5. Remove suction, main and in-line filter elements; wash them thoroughly in clean water with a soft brush and replace.
6. Remove nozzles, nozzle filters and nozzle bar end-caps if they are fitted. Soak them all in a bucket of water with appropriate cleaning agent recommended for the

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- cleaning of spray machinery. Scrub clean with a soft brush.
7. Part fill the tank and pump out to flush all parts. Ensure you open/close boom valves during the flushing procedure to clean out crevices. Do this more than once if necessary.
 8. Refill the tank with clean water or a recommended cleaning agent, there are about a dozen commercial tank cleaners designed to remove or neutralize most of the modern low rate chemicals. If no cleaning agent is recommended, one gallon of household ammonia per 50 gallons of water may be used. Do not use chlorine-based cleaners such as Clorox. Recirculate for 15 minutes, then pump a quantity through the pipes and spray bars. Leave the remainder for as long as practical, overnight if possible.
 9. Discharge at least one quarter of the contents of the tank through the system and spray bars. Drain off the rest.
 10. Check that no deposits remain in the tank or filters. If there are any, they should be hosed down and scrubbed off.
 11. Repeat steps 8 to 10 using clean water with the appropriate cleaning agent.
 12. Safely store nozzles and filters, leave valves open and the tank lid loosely closed. Ensure that the sprayer is completely empty of water, particularly the pump. If you are unable to completely drain the system, you may consider using an antifreeze solution. An environmentally safe antifreeze diluted to 50% may be acceptable, alternatively, RV antifreeze may be used but remember it can't be diluted and so make sure the system is drained of water.
 13. Hose down the outside of the sprayer, scrubbing if necessary.
 14. Ensure the sprayer is parked safely and securely
 15. Remove the battery and trickle charge occasionally over the winter.
 16. Wash down waterproof protective clothing, apron, boots and face shield.
 17. Wash inside and outside of gloves with soap and water; rinse and dry them.
 18. Finally thoroughly wash hands, face and neck with soap and water.

Mechanical Maintenance

Lubrication must be carried out prior to storage; check all oil levels. Check the soundness of all mechanical components, particularly booms and boom hinges. Electrical connectors which operate boom control valves, spray monitors, etc. need to be cleaned and a nonconductive grease, available at an auto store, applied to prevent corrosion. Check wheels, wheel bearings and tire inflation.

Storage of Sprayers

Store the sprayer under cover, taking care to prevent dirt and moisture affecting the tank or working parts. Remember, sunlight softens and weakens rubber materials and can degrade plastic materials. Storing in a building also allows you the opportunity to conduct any routine or preseason maintenance.

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