

Techniques for Cleaning and Preparing Sprayers

Why Clean a Sprayer?

- Serious damage to susceptible plants can result from small amount of herbicides left in the sprayer.
- Damage can occur up to several months after sprayer use if the system has not been cleaned properly.
- Herbicide residues can redissolve with later use.

When Should a Sprayer be Cleaned?

- Daily
- Between products
- Between jobs
- At the end of the season

Highly Susceptible Plants

- In some cases, you may want to use separate sprayers for herbicides and insecticides or fungicides.
- You may want separate sprayers for certain pesticides or applications.
- These sprayers should still be thoroughly cleaned.

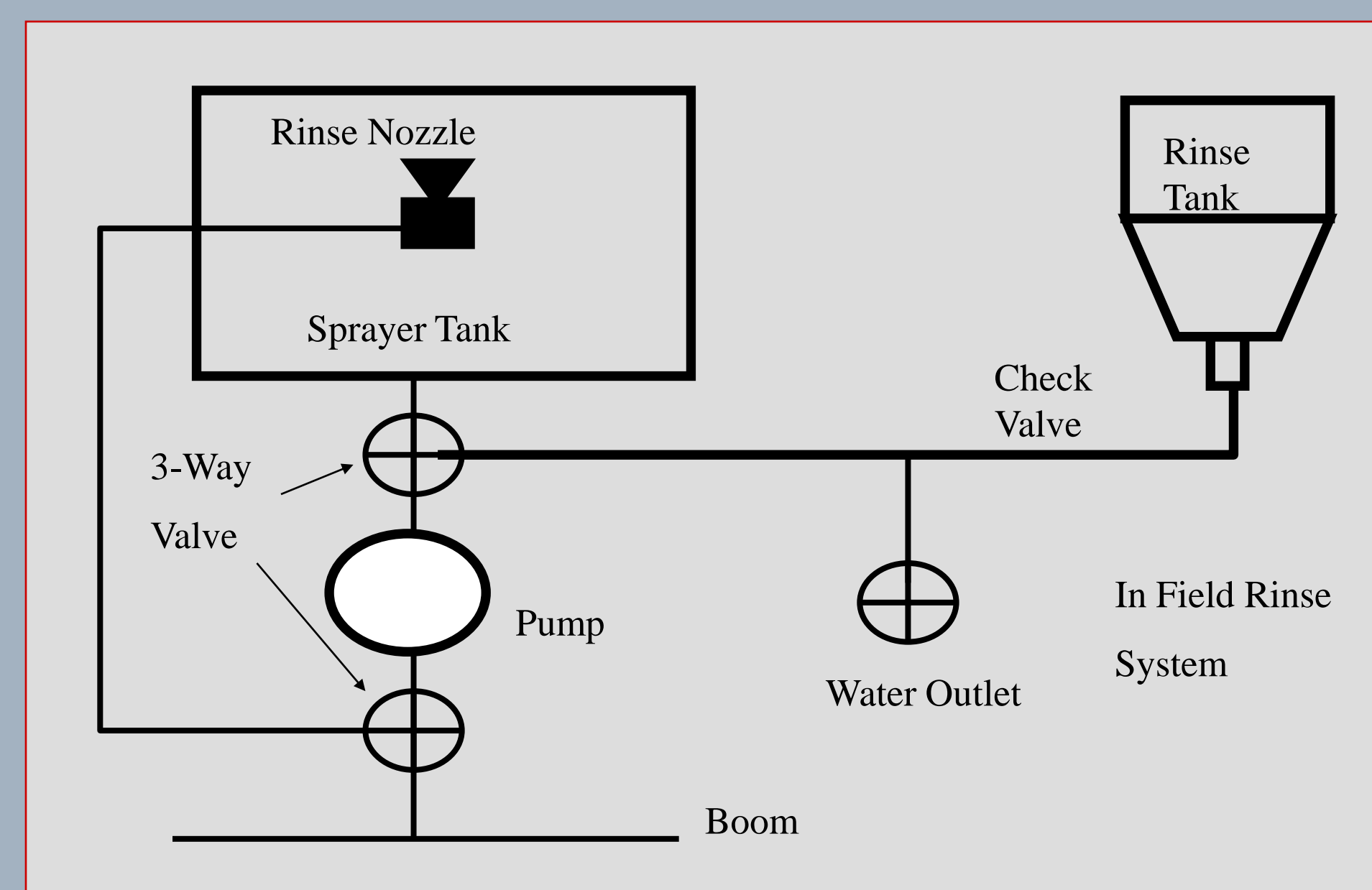
General Cleaning Guidelines

- Try to end each day with an empty tank, never mix more than you need for the job at hand.
- Check the label of the product you are cleaning from the sprayer.
 - Look for disposal guidelines, PPE, cleaning agents.
- Wash immediately after use, pesticides can settle to the bottom of the tank.
- Wash on a containment area or spray rinsate on approved plants according to the label.
- Some materials can be effectively cleaned from sprayers by flushing and rinsing with water, others require a cleaning agent.
 - Select a cleaning agent based on the herbicide formulation
 - Commercial tank cleaners, ammonia, detergent, kerosene or fuel oil.
 - Tank cleaner should dilute, solubilize and/or deactivate
- Be sure entire system can be drained and cleaned.

Flushing and Rinsing a Sprayer

- Be sure the tank has been emptied or sprayed out. Spray only on areas approved on the label
- Fill the tank with a small amount of clean water.
- Agitate and circulate the rinse water through the system
- Spray the rinsate through the nozzles, rinsate can be sprayed on an area listed on the label
- Repeat these steps until the sprayer is rinsed three times.

Larger Sprayers can Have a Built in Rinse System.



Inspect the System

- Inspect the system for necessary repairs or modifications
 - Bad nozzles
 - Damaged screens and strainers
 - Pump damage
 - Cracked or brittle hoses
 - Valve seals and fittings
 - Boom and frame structure

Using Cleaning Agents with a Sprayer

- Rinse the sprayer first with clean water
- Rinse the sprayer inside and out while filling.
 - Tank rinse nozzles are very effective
 - Pressure washers can be used also
- Agitate the system at least 5 minutes
- Spray out rinsate in field or on containment area
- Fill the tank with fresh water
- Add the required cleaning solution according to the pesticide label
 - Commercial tank cleaner: follow label
 - Ammonia: 2 quarts per 50 gallons
 - Detergent: 4 pounds per 50 gallons
- Agitate at least 15 minutes
- Spray thorough the booms until the solution completely fills the system
- Let stand for several hours or overnight
- Agitate solution again and spray on a suitable area or containment pad
- Rinse and agitate the system again with clean water
- Remove nozzles, screens and strainers and clean separately with fresh cleaning solution
- Give final rinse and flush with clean water

Storing the Sprayer

- Remove and store nozzles, strainers, caps and check valves
 - Plug the nozzle bodies after removing hardware
- Remove pressure gauges and cap gauge ports
 - Store gauges where there is no danger of freezing
- Remove electronic controls
- Circulate RV antifreeze throughout the system
 - Pushes out residual water
 - Prevents hose cracking
- Store in secure location
 - Preferably under shelter