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# Pesticide Rinsate water



# History

## Common Practices

➤ Washout - On the lot - Fencerows

Contaminated runoff - Environmental Damage - Crop Damage  
(Insurance Claims) Landfills - Regulatory Enforcement



# History

➤ Diking – Load Pads – Holding Tanks – Plastic jugs

Rain Water, Mixed Products, Lack of Storage Space – Excess Rinsate  
Lack of Application Sites, Over application, Insurance Claims



# Current

## Best Management Practices

➤ Inside - Storage, Load-out areas



# Current

## Best Management Practices

### ➤ Written Programs /Policies/Training

#### Cleaning Out Nurse Trucks

#### Cleaning Out TerraGators

#### Cleaning Out Post Sprayers

The following is the procedure we use for cleaning out a nurse truck of corn herbicides in order to transport 28% nitrogen back to the plant.

1. Make sure nurse truck is empty by opening the lid and visually checking at the field.
2. Drain all the product from the tank, hoses, and pump into a 5 gallon bucket, and dump into the sprayer tank with help from the applicator.

The following is the procedure we use for cleaning out a nurse truck at the end of pre-plant corn spraying, or when switching to fungicides or post spraying.

1. Make sure nurse truck is empty by opening the lid and visually checking at the field.
2. Drain all the product from the tank, hoses, and pump into a 5 gallon bucket, and dump into the sprayer tank with help from the applicator.
3. Add 50+ gallons of clean water and put into the sprayer.
4. Drain all the product from the tank, hoses, and pump into a 5 gallon bucket, and dump into the sprayer tank with help from the applicator.
5. At the plant, open the lid and rinse the top and sides of the tank through the holes above the baffle with the garden hose, keeping all the rinse water in the nurse truck.
6. Fill nurse truck with 400 gal. of water and the suggested cleaner according to the chart.
7. Turn on the pump and recirculate through the sparge line. Drive the truck purposely sloshing the water/cleaner around in the tank.
8. At the 7 acre field, back up to the RR tracks and open sparge line for a few seconds to flush it out.
9. Load the sprayer with the remaining product and spray off on the 7 acre field, when empty, drain the pump, hoses, and filters.
10. Look in the tank and if there is obvious dried chemical residue stuck to the sides and top of the tank interior, see the operations manager. We may need to pressure wash the inside of the tank.
11. Get 400 gal. of water and cleaner at the plant, recirculate through the sparge line, and load into sprayer to be sprayed off on the 7 acre field.

Option 1. End of the day completely drain all products from the booms by using these three methods:

1. Push product out of booms through nozzles.
2. Push product back into the tank by way of product recovery valve.
3. Push product back into the tank through product pump.

These three methods can be found in the Applicator Operator Manual for liquid systems. All three are accomplished using the boom cleanout switch. The first two are relatively simple because they use air pressure (via the boom cleanout switch) to move the product.

Option 2. End of the season or switching from corn to soybeans or pasture spraying.

1. Completely empty product tank by spraying any remaining product into a fencerow or reducing the rate and respraying the field perimeter. If you plan on spraying the product into a fence row, make sure it is OK with the customer to do so before doing it.
2. Drain booms using any of the methods described above.
3. Drain product pump, hoses, and strainer into a fencerow or edge of the field.
4. Close sump, agitation line, and pressure refill line going to product tank.
5. Open tank rinse valve and product tank rinse valve.
6. Turn on product pump and while running engine at a fast idle, empty the 135 gallon rinse tank into product tank.
7. Close rinse tank valve. Open sump, agitation valve, and pressure fill valve and circulate water in product tank.
8. Close all valves except sump and spray rinse water onto the field or into the fence row.
9. Return to the plant and get at least 400 gallon of water and tank cleaner and circulate through the entire system for 15 mins.
10. Spray off on the 7 acre field.
11. Repeat step 9 using clean water without cleaner.
12. If nurse truck is being cleaned out, use the water / cleaner from the nurse truck in lieu of the 400 gal. listed in #9.

Option 1: The following SOP provides instructions to properly clean out a post sprayer at the end of the day after spraying residual soybean chemicals. These instructions apply only if you are planning to resume spraying the same chemistry the next day. If you are not planning on being in the field the following day, see option 2.

1. Close the main sump valve, sparge line, and any other lines going from the pump back to the main chemical tank.
2. Drain all hoses and pumps into the fence row or the edge of the field. Also, drain the main filter by removing the plug in the bottom of the filter housing.
3. Open the valve on the rinse tank located close to the product pump.
4. Turn off all boom sections.
5. While backed up to a fence row, (or if no fence row, reduce the rate and respray the perimeter); turn on the product pump and spray clean water through the boom doing one section at a time, starting at the center, until you have gone through the entire boom including the fence row nozzles. If you plan on spraying the product into a fence row, make sure it is OK with the customer to do so before doing it.
6. If you still have clean water left in the rinse tank, repeat step 5.
7. Drain the pump, hoses and filter onto the fence row removing the water left in the system.
8. Before leaving the field, clean all filters and screens.
9. Keep all valves in the closed position overnight.
10. The following morning open the tank sump valve along with the sparge valve.
11. The following morning remember to “charge” the booms as soon as you are loaded and ready to start spraying.

Post Sprayer Option 2: The following SOP provides instructions to properly clean out a post sprayer when switching crops or chemistry. You should also follow all of these steps if you are going to be kept out of the field for more than 1 day and you were spraying any chemical that has tendency to settle out.

1. Make sure your tank is empty when you are finished with your last field. If needed, apply the remaining product at a reduced rate around the perimeter of the field.
2. Drain all hoses and pumps into the fence row or at the edge of the field. Also drain the main filter by removing the plug in the bottom of the filter housing.
3. Close the sump valve and sparge line on the product tank.
4. Open the rinse tank valve by the product pump, add 50 gallons of clean water into the tank through the tank rinse line.
5. Open the sump, sparge, and pressure fill line and recirculate.
6. With the fence row nozzles on, empty the product tank by spraying into the fence row. If you plan on spraying the product into a fence row, make sure it is OK with the customer to do so before doing it.
7. Drain all hoses and pumps into the fence row.
8. Repeat steps 3, 4, and 5.
9. Before leaving the field, clean all filters and screens.
10. Replace all filters and screens, and at the plant, fill the tank with 400 gallons of water/cleaner or receive from the nurse truck. Circulate thru the entire system and blow out 200-300 gallons of the water/cleaner on the 7 acre farm. Remove end caps and blow water/cleaner thru the booms. Drain all hoses, pumps, and the main filter. Open the sparge valve, pressure fill valve, and tank rinse valve.
11. Inspect the booms and end caps for residue. If residue remains, use the bottle brush to clean out residue.
12. Fill tank with 400 gallons of fresh water and cleaner, or receive from the nurse truck. Circulate, and blow half of it out on the 7 acre farm. Let the remaining water/cleaner stay in the tank and booms overnight.
13. If the nurse truck is to be cleaned also, the 400 gallon of product in it will replace the 400 gallons in step 10 and 12.
14. Rotate nozzle bodies to loosen any possible dry chemical.
15. The next day spray the remaining water/cleaner onto the 7 acre field.
16. Add 400 gallons of water to tank from the plant or from a nurse truck. Recirculate and spray out on the 7 acre field.

# Current

## Best Management Practices

- Regular Field Application by crop use





# Dedicated Applicators



# Dedicated Tender Trucks











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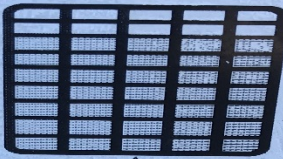
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500 Gallon Rinsate  
to  
2500 gallon water





