Effective tank cleanout minimizes crop damage

Farmers need to protect crops throughout the growing process, including when spraying them with herbicide treatments. Thorough tank cleanout is necessary to avoid crop injuries and maximize yields, which is why Steve Snyder, Enlist Field Specialist for Corteva Agriscience, urges applicators not to overlook this important task. "Proper sprayer cleanout is vital," Snyder says. "Thorough cleanout of the spray equipment, including the tank and nozzles, is the first step to minimizing the potential for sprayer contamination and damage to susceptible crops."

It's important to eliminate contaminants in spray equipment both before and after spraying Enlist® herbicides. Improper spray equipment cleanout can result in crop symptomology such as leaf strapping from traditional 2,4-D or leaf cupping from dicamba. When it comes to cleanout, Enlist herbicides with 2,4-D choline have an advantage over dicamba herbicides: Soybeans are 23 times more tolerant to 2,4-D than dicamba.



Leaf strapping from 2,4-D

Improper spray equipment cleanout

can result in crop

symptomology.

Leaf cupping from dicamba

Use this cleanout checklist from Enlist® field specialists when you're done spraying Enlist herbicides to help avoid contaminating other fields:

- **Start with a clean tank.** Snyder says it's important to start clean. Clean your sprayer before using Enlist herbicides to avoid contamination from a prior application. Residual corn herbicides or dicamba left in the sprayer can easily damage Enlist crops.
- Clean out the sprayer ASAP after application. If you cannot clean the sprayer immediately, do a freshwater rinse and then finish the process as soon as you are able. Snyder says to avoid letting the sprayer sit overnight before beginning the cleanout process, and don't let herbicide solutions dry onto tank walls or inside plumbing.
- **Triple-rinse your sprayer.** Triple-rinsing the sprayer and its components is essential after applying Enlist Duo® or Enlist One® herbicides to any crop other than glyphosate-tolerant corn. This helps ensure any remaining Enlist herbicides are removed from the system. Clean the sprayer according to the herbicide label. If you're tank-mixing, follow the most stringent cleanout recommendation of any tank-mix partner.
- Use a defoamer when tank-mixing. The addition of an anti-foaming agent is highly encouraged for ease of mixing and sprayer cleanout. For a current list of qualified anti-foam/defoamers, visit EnlistTankMix.com.
- Ensure the entire system, including other equipment, is cleaned out. "Often smaller, harder-to-see sprayer parts come in contact with herbicides," Snyder says. "Check hoses, screens, filters, pumps and dead ends on the boom. Clean these parts as well as the sprayer tank thoroughly." Clean transfer equipment and pumps before switching to the next product.

You can view and download the full Enlist sprayer cleanout guide at Enlist.com, under Tech Topics. Hundreds of products are approved for use with Enlist herbicides. Find them at EnlistTankMix.com For more information about the Enlist® weed control system, contact your Corteva Agriscience representative.

The triple-rinse process

Triple-rinsing is an important part of the cleanout process for Enlist herbicides, says Snyder. "Triple-rinsing the sprayer and its components is a must after applying Enlist Duo or Enlist One herbicides to any crop other than glyphosate-tolerant corn," she says. "Take your time and make sure any remaining Enlist herbicides are removed."

A single-rinse is all that is necessary when your next application will be on glyphosate-tolerant corn, but other crops need the full triple-rinse process.

- **Rinse 1:** Drain the spray system (including lines and boom) for no less than five minutes. Fill the tank with clean water to at least 10% of the tank's total water volume. Circulate clean water through the system for at least 15 minutes. Spray out the rinse solution through the boom/nozzles.
- Rinse 2: Completely drain the spray system, including lines and booms. Remember: Spray solution can be hard to drain from low-lying hoses and the dead ends of sprayer booms. Loosen and remove hoses and end caps to drain.

Remove and clean all filters and strainers. Fill the tank with clean water to at least 10% of the tank's total water volume. Add a commercial tank cleaner, if desired. Circulate clean water through the system for at least 15 minutes. Leave the solution in the system for several hours. Overnight is preferable if time allows. Spray out the rinse solution through the boom/nozzles.

Rinse 3: Completely drain the spray system, including lines and booms. Fill the tank with clean water to at least 10% of the tank's total water volume. Circulate water through the system for at least 15 minutes. Spray out the rinse solution through the boom/ nozzles. Completely drain the spray system, and then remove and clean the nozzle tips and strainers separately.

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