# CLEAN, DRAIN, PROTECT

## Tips and tricks help winterize pesticide application equipment

Winterizing pesticide application equipment now ensures fewer parts and pieces will need replacement when battling those pesky weeds and/or pests in the spring, saving time and money.

Proper winterization and maintenance should be done no matter whether you have a 1-gallon pump sprayer or 300-gallon sprayer. Water or pesticides left in a tank over winter can cause serious damage when they expand in the cold. This expansion will crack and break pieces, making buying replacement parts necessary and delaying the start to the next spray season.

Without a heated garage or shop to keep equipment from freezing, these basic steps should be followed: Clean, Drain, and Protect. Remember that proper personal protection equipment (PPE) should be worn when working on a pesticide sprayer. Generally, appropriate PPE includes a long-sleeved shirt, nitrile or chemical resistant gloves, pants, eye protection, and shoes with socks. Refer if necessary to the pesticide labels being used to spray for PPE information.

### Step 1. Clean

Use fresh water to rinse any pesticide residue out of a sprayer. The rinse water can be applied to the area where the spray was applied. Always refer to the label before applying any rinses aids.

Rinse three times to ensure all pesticide residues are cleaned out.

#### Step 2. Drain

Draining the tank, pump, filter, and handgun is important to ensure water does not freeze and ruin parts in a sprayer. Once all the water is drained from the easy to reach places, an air compressor can push the remaining water out of hoses. If the sprayer has boomless nozzles or a boom bar, disconnecting the hose and blowing air through the booms will help protect those elements. When blowing out the hose connected to the handgun, lock the handgun open to make sure any remaining water has a place to escape.

#### Step 3. Protect

Using a 50/50 mix of antifreeze and water will ensure the sprayer is protected from the cold. Pour the 50/50 solution in the pump, tank, and other components. Use the green automobile antifreeze; the material in RV antifreeze can dry out and ruin fittings and seals within a sprayer.

If a sprayer has multiple ball valves, the valves need to be angled at 45 degrees. Angling the valves allows a void for any excess water to expand into when freezing.

Many sprayers with boomless jets have electronic solenoids.

Make sure the electronic valves are open and use the compressed air to push out any water.

If the sprayer has a gas-powered motor, this would also be a good time to do maintenance on the motor. Change the oil, check the sparkplug, clean/replace the air filter, and add fuel stabilizer.

The sprayer is now ready to weather the cold temperatures during winter.

Once temperatures rise in the spring, you can get your sprayer back into action by draining the 50/50 antifreeze mixture. It can be put into a marked container to be reused when winter returns. Thoroughly rinse the tank, making sure no residual antifreeze is left. Finally, check all components to make sure they are working properly, replacing any broken or worn-out parts. Fill the sprayer with water and check calibration for the person doing the spraying.

Warne Chemical in Rapid City, South Dakota, has a great resource video on sprayer winterization. It is at bit.ly/winterize-sprayer.

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