

**INSIDE GRUNDY COUNTY**  
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Whether you are using herbicides in a home sprayer or are applying herbicides with an agricultural sprayer, it is important to take precautions when switching herbicides to clean your spray equipment properly to avoid herbicide injury. The following information is directed more to farmers but home gardeners can benefit from the information as well.

With spray season well underway, it is important to avoid spray tank contamination by properly cleaning the sprayer tank when switching from one herbicide to another. Occasionally, herbicide injuries occur that are traced back to contamination resulting from improper cleaning of the spray tank. The following information comes from Chris Boerboom, University of Wisconsin Extension Weed Scientist, to address sprayer tank contamination concerns.

“With post emergence herbicides so widely used, it is important to take extra time and care to clean your sprayer to avoid herbicide injury when switching between corn and soybeans or other sensitive crops. However, one must be careful and clean herbicide residues out of the sprayer even when switching between different corn or soybean types. For example, a conventional corn hybrid could be damaged by a sprayer contaminated with glyphosate after spraying Roundup Ready corn”.

“Consider the following guidelines regarding tank contamination: 1) Once injury occurs, there is no fix. 2) Post emergence applied herbicides are more likely to injure crops than herbicides applied preemergence because the herbicide is applied directly to the leaves rather than being diluted in the soil. Also, several preemergence herbicides have little or no foliar activity. Therefore, be especially careful to clean post emergence residues from spray equipment. 3) Systemic herbicides such as glyphosate, dicamba and other growth regulators, ALS inhibitors (Accent, Raptor, etc.) and ACCase inhibitors (Assure, Poast, etc.) are a greater concern than contact herbicides because systemic herbicides damage the growing point. Contact (non-mobile) herbicides only damage sprayed leaves. Relatively high concentrations of contact herbicide residues are required to cause long term damage in most cases. However, low concentrations of systemic herbicides can cause serious damage. 4) The most serious contamination problems are glyphosate injury to corn and dicamba injury to soybeans. Both of these crops are very sensitive to those herbicides. 5) Just spraying until the tank is empty does not mean that all the herbicide is removed from the spraying system (sump, filters, pump, lines, etc.) Proper cleaning and rinsing is needed to remove the remaining spray solution or herbicide residues. 6) Clean spray equipment as soon as possible after use. Dried residues are more difficult to clean and remove. 7) Follow the label’s directions for the best cleaning agent to use. On several labels, you will note that the cleaning procedures recommend that the cleaning solution stand in the sprayer for several hours to overnight. Cleaning a spray tank is not a job that should be rushed, especially with certain herbicides that are highly active on sensitive

crops. 8) Never add chlorine bleach to ammonia or liquid fertilizers that contain ammonia because toxic chlorine gas can be formed”.

If you would like additional tips on cleaning your sprayer tank or cleaning agent recommendations for common post emergence corn and soybean herbicides, check the label or contact the Grundy Office of ISU Extension at 319-824-6979 and ask for *Avoid Spray Tank Contamination*.