

# Controlling Large Horseweed And Waterhemp In Soybean



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The volume of inquiries about how to control large (taller than 12 inches) horseweed (a.k.a. marestalk) and waterhemp in soybean has remained consistent over the past 10 days. The answer can be summarized as follows: *there are NO postemergence herbicides that will consistently control these very large weeds in soybean, especially if these weeds are resistant to glyphosate.*

Glyphosate-resistant waterhemp can be controlled by foliar-applied PPO inhibitors (such as lactofen (Cobra), fomesafen (Flexstar) or acifluorfen (Ultra Blazer)) in conventional or glyphosate-resistant soybean varieties, or by glufosinate (Liberty) in glufosinate-resistant (Liberty Link) soybean varieties. However, it is very important to remember that these herbicides do not extensively translocate within the weed following their absorption through the leaf surface, and control of large weeds is often not as consistent as control of small (5 inches or less) weeds. Reducing application rates of these herbicides often results in reduced waterhemp control. In our research, we have observed less control of glyphosate-resistant waterhemp with tankmixes of glyphosate and fluthiacet (Cadet) or 2,4-DB compared with tankmixes of other PPO-inhibiting herbicides. Keep in mind that PPO-resistant waterhemp biotypes are very common, and these biotypes are sometimes also resistant to glyphosate. The only effective methods to control waterhemp plants resistant to PPO inhibitors and glyphosate include physically (i.e., weed hook or hoe) or mechanically (i.e. cultivate) removing the plants from the field.

The following text, written by Dr. Mark Loux, extension weed scientist at the Ohio State University, provides excellent information about managing marestalk in double-crop soybean.

A weed free start is the most critical aspect of a weed management program for double-crop soybeans. This can be challenging to achieve where glyphosate-resistant marestalk are present after wheat harvest. Problems with marestalk include the following: 1) most populations are now glyphosate-resistant and many of these are also ALS-resistant (we suspect ALS-resistant marestalk exists in Illinois); 2) it's usually not possible to use 2,4-D ester and wait 7 days until double-crop soybean planting; and 3) marestalk that were tall enough to be cut off by harvesting

equipment will be even more difficult to control. Our research indicates that there are no herbicide treatments that consistently control glyphosate-resistant marestalk populations that have regrown following mechanical disturbance or prior herbicide treatment. Certainly one of the best options is to plant LibertyLink soybeans, which allows for a POST application of Liberty to help control plants that survive a preplant burn-down. The following are the most effective burn-down options for control of marestalk prior to double-crop soybean emergence:

- Liberty (32 to 36 oz) + Sharpen (1 oz) + MSO + AMS (can also add metribuzin)
- Liberty (32 to 36 oz) + metribuzin (4 to 8 oz of 75DF) + AMS
- Glyphosate (1.5 lb ae/A) + Sharpen (1 oz) + MSO + AMS

We suggest using a spray volume of 20 gpa for any of these treatments, and avoiding nozzles that produce large droplets. Results with a combination of glyphosate and 2,4-D may be more variable than the treatments listed.

With regard to the control of weeds that can emerge after double-crop soybean planting, and the entire weed control system, the following approaches can be considered.

1. Plant any type of soybean, and include a residual herbicide with the burndown treatment so that POST herbicides are not needed. A good strategy in Roundup Ready or nonGMO soybeans even where POST treatment is needed, since POST marestalk control might be impossible in these systems. Residual herbicides used at this time of the year should be restricted to those that have little or no carryover risk – such as metribuzin, Valor, or low rates of chlorimuron or cloransulam products.

2. Plant a LibertyLink soybean, and apply Liberty POST as needed. Probably the best option for control of later-emerging marestalk or plants that regrow after the burndown, assuming that there is any Liberty available.

3. Plant a Roundup Ready soybean and apply glyphosate POST. Should work for most weeds, but not a good choice if the POST application needs to control marestalk.

4. Plant a nonGMO soybean and apply conventional POST herbicides (Flexstar, Fusion, Select, etc) as needed. This system has the most potential for soybean injury, but seed may be cheaper than the other systems. Not a good choice if the POST application needs to control marestalk. Δ

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