



Proactive Management of Problem Weeds In Your Roundup Ready® Soybeans

As you start to solidify your plans for 2014, I encourage you to review and evaluate your soybean weed control plan. I have been getting lots of questions about controlling marestalk, waterhemp and palmer amaranth. Weeds are changing and these three broadleaves can be challenging unless you have an effective strategy to control them. Purdue University has documented glyphosate resistant waterhemp in 21 counties and palmer amaranth is now documented in 27 counties. Many growers in Jasper and Newton Counties had experiences with palmer amaranth last year and will be adjusting their herbicide programs and possibly their crop rotations to manage it for the future. Purdue recently surveyed county extension educators and asked them to estimate how prevalent palmer amaranth was in the county they service. Here are the results:

County	% Of Fields Infested with palmer amaranth
Jasper	30%
Newton	15%
Lake and Porter	Less than 5%
Benton, LaPorte, Pulaski, Starke and White	Less than 1%

I hope that you will take a few minutes to read through this newsletter and consider some of the suggestions that I have compiled. These suggestions are based upon my experiences, as well as, what I have learned from crop protection reps and university weed scientists.

Marestail

Lets start with marestail. If you are no-tilling soybeans, you need to assume that you will have marestail pressure. We cannot count on glyphosate to consistently control marestail and the herbicide options to control it in the emerged soybean crop are very inconsistent.

This Fall, many growers adjusted their Fall herbicide programs to include 2,4-D and/or a dicamba product as the first line of defense against this weed. This is a great strategy. However, regardless of whether you used a Fall herbicide program or not, my Spring recommendation is to keep 2,4-D in the tank with your glyphosate and the residual herbicide of your choice. Don't forget that 2,4-D has a replanting restriction of 7 days for the most common use rate. If you cannot wait for the 2,4-D replant restriction, you might consider using the BASF product, Sharpen® in place of the 2,4-D. If you use Sharpen, university weed scientists suggest tank mixing a metribuzin containing product to enhance the marestail performance. Remember, the key is to control the marestail before you plant.

Waterhemp and Palmer Amaranth

I am going to address waterhemp and palmer amaranth together since the control strategies are essentially the same in our area. These two species are both members of the pigweed family and can be very hard to tell apart at early stages of growth. Both of these weeds can germinate throughout the growing season. They grow very fast and are very prolific seeders. Unfortunately, glyphosate is not controlling either of these weeds like it did in the past. So, we need to have a sound strategy for controlling these weeds with residual chemistry from the start. Your strategy may need to be modified if this weed escaped your herbicide program the past. There are 3 steps to this plan.

Step 1- Build your herbicide program with a base residual herbicide program

My recommendation is that everyone needs to start with an effective residual herbicide base program prior to soybean emergence. Most university weed scientists feel the best strategy is to apply a herbicide that contains Authority® (active ingredient is Sulfentrazone) or Valor® (active ingredient is Flumioxazin). These compounds deliver the best early season residual against waterhemp, palmer amaranth and many other small seeded broadleaves. University weed scientists recommend adding a residual grass and broadleaf product, like Warrant, with these products if you have had heavy pressure in the past. There are several products that contain these active ingredients premixed with other chemistry on the market. Here is the most up to date list of products containing those active ingredients:

<u>Herbicide</u>	<u>Components</u>
Authority Assist®	Sulfentrazone + Imazethapyr (Pursuit®)
Authority First® or Sonic®	Sulfentrazone + Cloransulam (First Rate®)
Authority Elite®	Sulfentrazone + s-Metolachlor (Dual II Magnum®)
Authority MTZ®	Sulfentrazone + Metribuzin
Authority XL® or Authority Maxx®	Sulfentrazone + Chlorimuron (Classic®)
Envive®	Flumioxazin + Chlorimuron (Classic®) + Thifensulfuron Methyl (Harmony GT®)
Fierce®	Flumioxazin + Pyroxasulfone (Zidua®)
Spartan® or Spartan Advance®	Sulfentrazone
Valor®, Encompass™, Outflank™	Flumioxazin
Valor XLT®	Flumioxazin + Chlorimuron (Classic®)

Be sure to consult the label for use rates and follow all precautions including crop rotation restrictions. Some of these products can cause crop response to the soybean crop at emergence in challenging weather conditions, so be careful with rates and application overlaps. Be sure to follow the sprayer tank clean out procedures closely when switching between crops.

Step 2-Scout and adjust your postemergence herbicide program as needed

I cannot stress the importance of timely and frequent scouting. You have got to be in the fields at key times throughout the growing season. The post-emerge herbicide options are contact products that have to be applied to very small weeds to be effective. If you see any waterhemp or palmer amaranth emerging, you need to treat them like they are glyphosate resistant. That means adjusting your glyphosate program. Here are my thoughts on three different situations that you might encounter:

1: If you do not see any waterhemp or palmer amaranth escapes

Continue with your normal glyphosate program and continue to scout. If you are really concerned about these two broadleaves and willing to spend a little more money, you could add a residual grass and broadleaf product like Warrant® to the first glyphosate application.

2: If you have a few waterhemp or palmer amaranth escapes, add a contact herbicide

Tankmix a contact herbicide that contains fomesafen (Flexstar®/Rhythm®, Marvel®, Refex®/Dawn® or Torment™) or lactofen (Cobra®/Phoenix®) with your glyphosate program. Flexstar® and Cobra® are the most commonly used products in this group. You will have to accept some foliar burn to the beans to control these weeds. Most glyphosate applications are made at 10 gallon per acre thru air induction nozzles to create larger droplets and reduce drift. These contact herbicides perform best when applied at volumes closer to 20 gallon per acre and with nozzles that provide complete coverage. So, adjusting your sprayer setup to better suit the contact products will enhance performance. Be sure to consult with your retailer on the proper adjuvants to use.

Don't forget that products that contain fomesafen need to be used early in the growing season due to recrop restrictions. Essentially, they can only be used one time during the growing season.

3: If you have lots of waterhemp or palmer amaranth escapes or a history of these two weeds

Tankmix a product that will burndown the existing escapes and provide some residual control as well. Syngenta has a product called Prefix® that is a premix of s-metolachlor and fomesafen that has been pretty effective. You can also create your own tank mix using a fomesafen or lactofen compound with other labeled grass materials like Warrant®. Don't forget if you use fomesafen in this trip you will not be able to use it later in the growing season. For example, if you apply Prefix® you cannot follow it later in the season with Flexstar®.

Step 3: Continue to scout and manage escapes

Continue to scout your fields and field borders throughout the growing season. Pay particular attention to thin spots in the crop and drown out areas for escapes. The goal is to control any escapes and limit seed production that could be spread by the combine or tillage tool this fall.

Hopefully, I have given you some ideas on different strategies on these three problem weeds. I cannot emphasize how important it is that you take action to control these weeds before they become a bigger problem. As you know, effective weed control is going to cost more than it did in the past, but remember the cost of poor weed control is even more expensive (short term and long term). Check with your local retailer about special incentives like the Roundup Ready Plus® Program that can reduce your herbicide cost by using certain weed management programs.

I am providing some links below that might be helpful for identifying and managing these problem weeds.

Please feel free to give me a call or drop me an e-mail if you have any questions.

Thanks for your business,

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Additional web sites links for more information:

Palmer Amaranth Biology, Identification and Management <http://www.extension.purdue.edu/extmedia/WS/WS-51-W.pdf>

Scout and Identify Pigweed Species Now https://ag.purdue.edu/btny/weedscience/Documents/Palmer_ID.pdf

Control of Maretail in No-Till Soybeans <https://ag.purdue.edu/btny/weedscience/Documents/marestail%20fact%202014%20latest.pdf>

Take Action: Herbicide Classification https://ag.purdue.edu/btny/weedscience/Documents/47575_FINAL_TakeAction_HerbicideClassChart.pdf

Always read and follow all label directions.

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