DICAMBA & PALMER PIGWEEDS

PINNACLE
CROP TECHNOLOGIES, INC.

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by Matt Hagny

While I applaud the industry for developing new traits, I have grave concerns about what is going on with the adoption of Xtend soybeans. Now, if you're planting Xtend (dicamba-resistant) soybeans just to guard against drift of dicamba from elsewhere, then that's fine. But if you're planning to apply dicamba in-crop on Xtend beans, then I have concerns.

If you think you can control sizeable weeds easily with dicamba over the top of Xtend, better think again. Studies conducted in Missouri in 2012 show only ~85% control of 2 - 4" Palmer pigweeds with 0.5 lb/a of dicamba, which is the max labeled rate for post-emerge use in Xtend soybeans. Control of larger Palmers was very poor. (And control of waterhemp was also marginal.) There are already reports of failures applying dicamba products post-emerge on Xtend beans (In talking to other agronomists, there are plenty more of these failures; but the sales reps for these products keep on spewing hype -- and everyone really wants to believe it's just that easy.)

Palmer pigweeds are extremely aggressive, and will choke out most anything else. And they love it hot & dry. On Palmers this size, and this thick, there's not much to be done except paraquat. (Unless they still happened to be susceptible to glyphosate, and that hope is fading fast across most of the USA.)

Furthermore, weed scientist Jason Norsworthy in Arkansas has created dicamba-resistant Palmers in just 3 generations! He applied doses of dicamba that killed part, but not all, of a Palmer population, then grew them out and replanted those seeds. He repeated it for a second generation. By the third generation, a full dose (half-pound) of dicamba didn't control them at all.

We've been selecting for dicamba-tolerant Palmers for 30+ years where dicamba has been used in corn, milo, or on fallow acres. In Kansas, we generally cannot kill Palmers with straight dicamba if they're more than 3" (Status works on somewhat larger ones, but that's not straight dicamba, and not anything that can be used on Xtend soybeans).

Furthermore, we really need to preserve the efficacy of dicamba on Palmers for the corn & milo portion of our crop rotations. Putting more selection pressure on the Palmer population by also using dicamba on Xtend soybeans seems unwise (although your neighbor might create the problem and you get it via pollen anyway).

If you've already planted Xtend beans, hopefully you put down a substantial rate of sulfentrazone (Authority-type products) (0.37 lb a.i., or 0.75# of straight sulfentrazone product) to take care of the brunt of the pigweed problem. (Or hope that glyphosate is still effective on your populations of pigweeds, but that hope is unwise for many of you.) If little or no sulfentrazone was applied, I would strongly encourage you to spray your dicamba product onto the Xtend beans very early when the weeds are very small (and Palmers grow 2 - 3"/day when it's warm). And I'd run products such as Prefix either pre-emerge or early post-emerge (but after the first trifoliate is full-size), perhaps spiked with extra S-metolachlor (be careful with the rate of fomesafen in Prefix & other products, as it can carryover to corn, sorghum, and some cover crops).[1] You'll probably still need a follow-up spray with a tankmix of a couple 'burner' (PPO chemistry) herbicides, and perhaps with Warrant, Outlook, or Zidua added. After that, it's down to rogueing -- which is entirely justified if you plan to continue farming a tract. Palmers are rapidly becoming resistant to everything, and are a serious threat to your ability to grow summer crops. I'm not one to be careless in how much money or effort I recommend throwing at a problem, but this particular weed is the most formidable pest I've encountered in 24 years of agronomy work.

If you haven't yet planted, consider switching to LibertyLink -- but still use sulfentrazone, Prefix, etc.

In the foreground a small Palmer is regrowing after being burned by a full rate of PPO herbicide, lots of water & adjuvants, and no interference with the spray pattern. It takes some really fabulous activity with post-emerge PPOs to kill the dozens of growing points on very small pigweeds. Are you feeling lucky? I don't. Have seen too many failures. But by mixing two different PPOs together, and spraying at the optimum time during the day, it can take out small (2") Palmers satisfactorily, although there's increasing tolerance & partial resistance to post-emerge PPOs in various Palmer populations across the country. Don't put yourself into these desperate situations!

For more on the explosion of glyphosate-resistant Palmers in KS & Oklahoma (and they were already resistant to ALS & triazines), read my past newsletter. It also contains many photos to help distinguish Palmers from other pigweed species.

[1] Prefix isn't labeled with either Engenia or XtendiMax (dicamba products for post-emerge treatment of Xtend beans). Reflex & Flexstar are labeled for tankmixing with XtendiMax, but not Engenia (and note that if using Reflex, there's a compatibility problem with K-salt of glyphosate -- although other glyphosate formulations are okay, as are other fomesafen products, such as Flexstar, and most generics -- but there's an inert ingredient in brand-name Reflex that is quite likely to make goo if it's tankmixed with K-salt of glyphosate, which are usually the more concentrated products -- more than 4 lb/gallon glyphosates.) No S-metolachlor product is labeled with either Engenia or XtendiMax, although Zidua and Warrant are.