

The Chem Gro Crop Watch, Issue #1, 6/25/15

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<u>Not wanting to dwell on the obvious, but it's time to spray soybeans!</u> Frequent rain storms have kept the sprayers out of the fields for the last two weeks. Unfortunately, the weeds do not stop growing during this same time period. So the million dollar question is... "What are we going to use to kill them?" I am going to give my biased view point on this for the geography that I cover. Areas outside of Western Illinois may have better luck with different products.

First of all, I cannot stress the importance of using high rates of <u>soybean residual herbicides</u> that provide <u>excellent control of tough weeds</u> (particularly waterhemp) with <u>different modes of action</u>. This is the second year most of our customers are using a combination of PPO + Long Chain Fatty Acid Inhibitors as a pre-emerge soybean program. I realize this "mumbo-jumbo" means very little to most of you, but the trade name products we are using are Authority Maxx + Outlook, Authority First + Outlook, and Fierce. These chemical combinations are hands-down better than each component separate by itself. Despite the on-going rain preventing us from spraying the 2^{nd} pass in soybeans, the Chem Gro managed fields are staying very clean!

Tall Waterhemp in RR soybeans, what do I do? From my experience, when waterhemp falls in between the knee to crotch high measuring tool, the best solution is to use the maximum labeled rate of Roundup Weather Max, which is 44oz per acre. At this point, waterhemp this height will have over 150 active growing points (meristems) that the Roundup will have to translocate to and kill. If the waterhemp is NOT Glyphosate resistant, there is a fairly good chance the plant will die. If there are too many growing points for the concentration of Roundup, odds are you may see the top 90% of the plant die off, but the lowest growing points near the ground that receive the least amount of translocated Roundup may still survive and the plant will regrow back. If it comes to this point, "it is what it is" and you will have to live with some waterhemp to harvest.

<u>To burn...or not to burn?</u> <u>That is the question</u>. Often, soybean herbicide "burners" (PPO chemistry) are added into the tank with Roundup as a rescue effort to help kill large weeds such as waterhemp. However the



success rate of this in Western Illinois is not very high. Most of the waterhemp in this area appears to be resistant to the burner chemistries that are foliar applied. This is very contradictory from what I told you earlier about PPO chemistries. PPO chemistries used as pre-emerge are VERY effective. However PPO chemistries used as foliar treatments result in very POOR control in this area. Root uptake vs. foliar uptake of PPO chemistries work differently in the plant. In fact, I personally believe adding in PPO burners with Roundup result in poorer control of waterhemp vs. using Roundup alone. The PPO

burners destroy plant cells which prevent the Roundup from translocating. (Live plant cells are needed to translocate Roundup, not damaged "burnt" plant cells). Last year, I had a customer that specifically wanted his beans to be sprayed the 2nd pass with a PPO burner with Roundup. When a large percentage of the waterhemp did not die from this treatment, we waited about 3 weeks for regrowth and sprayed the maximum rate of Roundup as a 3rd trip for a rescue. We killed the vast majority of these waterhemp plants with the Roundup alone.

Glyphosate (Roundup) resistant waterhemp. This picture was taken two weeks ago in a soybean field Chem Gro sprayed with 36oz per acre of Roundup Weather Max. These waterhemp plants were about 3" tall at the time of application. The 36oz per acre of Roundup at 3" tall waterhemp is a HUGE rate of chemical and easily should kill plants this small. As you can see, there is 5 waterhemp plants in a row that are yellow and dying, but the one plant behind them is growing normally like nothing was ever applied to it. At this point, we as growers and ag retailers are Sh*t out of Luck! There is nothing we can add into the tank that will kill this Glyphosate and most likely PPO resistant waterhemp. Oh, yeah. Forgot to mention that all waterhemp in this area are also ALS chemistry resistant too (Pursuit, Raptor, Classic, First Rate, Synchrony). The ONLY option at this point to kill these plants is to WALK YOUR SOYBEANS AND PULL THESE WEEDS BY HAND. Otherwise, "it is what it is" and you will have to live with these waterhemp plants to harvest.



Marestail in RR soybeans, what do I do?

Marestail is a weed that MUST be killed prior to soybean planting with an application of Roundup + 2-4D or Roundup + Sharpen in a burndown residual program. A burndown with Roundup only (no 2-4D or sharpen added) will not kill this weed.

If marestail is in a field of soybeans like this, there is a slight chance of adding First Rate along with the Roundup "might" kill the marestail, but the odds are not in your favor.

Unfortunately, "it is what it is" and you will have to live with these marestail plants to harvest.



That's my 2 cents worth....the choice and decision is always yours.

Lonne