



**The Chem Gro Crop Watch, Issue #15, 5/14/20**

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**Herbicide Application Restrictions**

I know exactly what you are thinking when you read that word “restrictions”. Like many of the things in our life, we look at a restriction and think of it as more of a suggestion that may or may not be followed. It happens all of the time, whether it is right or wrong is not for me to decide. There are a certain set of restrictions that will become costly if not followed in agriculture. That would be our herbicide restrictions that we must follow when making applications. These restrictions may vary from a time frame which a chemical can be applied without causing harm to the current crop or a restriction for total amount of chemical which can be applied per acre. Two very simple examples of these types of restrictions would be the growth stage limit on Capreno herbicide, and another would be our rate restrictions on Flexstar. Capreno is a herbicide we commonly use on conventional corn to take care of any grass or broadleaf weed in the field. Due to the fact that one of the components of Capreno is trying to kill a grass in a grass field, the timing of application is critical as the grass herbicide component in Capreno will harm the yield of corn if it is applied after 6 leaf collars are showing on a corn plant. How tall is this you might ask? About 20 inches in height, which doesn’t buy us much time. Flexstar is a burner chemistry used in either a pre emerge or post emerge application on soybeans. If you read into the label closely you will notice a 1.3-pint rate

restriction for this area of the United States and this is a total amount restriction to be applied every other year to prevent build up or carryover of chemical into your next crop. In either case the herbicide restriction on both Flexstar and Capreno could mean loss of yield to your crops if not followed properly. This leads me to the real topic of this article, application restrictions for both Xtend and Enlist soybean trait systems and how this effects the way we must manage our crops.

## **Xtend Herbicide Restrictions**

This previous growing season, many growers and ag retailer alike found out the hard way what happens when you violate label restrictions to dicamba herbicides that we use for our dicamba tolerant Xtend soybeans. When a complaint was filed with the state, the state would take their time and go through every record of application available to them. If even one piece of information was missing from records or 1 requirement not met, it was an automatic fine from the state of Illinois. There are several restrictions and requirements to applying an approved dicamba herbicide such as Engenia, Xtendimax, Fexapan, and Tavium but I will only be talking about those that have the most effect on us. For a full list of restrictions and requirements, consult the appropriate label for more information.

- Nozzle selection- Due to the need to reduce herbicide drift from applications of dicamba there are only a certain set of approved nozzles that can be used in dicamba applications.
- Tank Mix Products- Only herbicides that been tested and approved can be tank mixed in with an approved dicamba herbicide. Test is done at a wind tunnel to ensure tank mix partners do not affect herbicide volatility.
- Wind Speed and Direction- A wind speed restriction of between 3-10 mph is necessary for dicamba application. Why not spray when there is less than 3 mph wind? Atmospheric inversions are the concern which can cause small droplets of herbicide to stay suspended in the air for long periods of time. More time in the air means more risk that it will hit something we don't want it to. Wind direction must also be factored in as you are not allowed to apply dicamba when wind direction is blowing towards a sensitive area or even a residential area.
- Auxin Specific training- All dicamba herbicide applicators must take an auxin specific training before making applications. This training can be done online or at scheduled sessions.
- Buffers- 110-ft buffer strips must be made between the last row of crop and either the first row of sensitive crop or any Illinois Nature Preserve Commission Site.
- Cutoff Date- DO NOT APPLY AFTER JUNE 20<sup>th</sup> 2020!!!! That's not that much time to get a second pass on at all.
- Planting Date Restriction- Dicamba may not be applied more than 45 days after planting. So if you plant your soybeans on the second week of April, you must spray your soybeans before the month of June regardless of how big the soybeans are.
- Temperature restrictions- Do not apply if air temperature is over 85 degrees Fahrenheit if the national weather forecast for that day is over 85 degrees Fahrenheit. When you look at the typical air temperatures we experience in June, we don't get to many days that stay below 85 degrees so getting that chemical on early is critical.

## **Enlist Herbicide Restrictions**

Enlist soybeans allow an applicator the use of glyphosate (Roundup), glufosinate (Liberty), and 2,4D (Enlist). Currently there are only 2 labeled 2,4D products for enlist soybeans, Enlist One and Enlist duo. The difference being that enlist one is just 2,4D and Enlist duo is 2,4D and glyphosate. Soybean natural tolerance to 2,4D is greater than Dicamba so the rules do reflect that. Like the restrictions on dicamba tolerant soybeans, I will not go through the entire list of restrictions.

- Nozzle selection- Like our dicamba products, Enlist requires approved nozzles for application and even takes it a step further with approved pressure ranges during application.
- Tank Mix Products- Only herbicides that have been tested and approved can be tank mixed in with an approved Enlist herbicide.
- Wind Speed and Direction- A wind speed restriction of between 3-10 mph is necessary for Enlist application. If the wind is blowing towards susceptible crops, application is prohibited. Be sure to check the list of susceptible crops on the Enlist label.

Remember, if worse comes to worst you have fallback options with glufosinate to clean up your fields from weeds.

## **Final thoughts**

Whatever system you are using, it is important to know that the longer you wait to apply the herbicide, the bigger the weeds and the greater the risk of off target movement. Looking at the restrictions for dicamba herbicide applications, the smart thing to do is to get the second pass done as soon as reasonably possible. Enlist soybeans are going to be in the same boat as well. The main message I wanted to convey in this article is that we don't want to wait on weeds and we definitely don't want to push the boundaries of what our restrictions allow us to do. Violation of these rules could be a costly mistake. Like always, my job is to give you the best advice possible, what you do with it is up to you.