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Cooperative Extension Service

Farm Update

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Plan now for spring herbicide application

Spring is around the corner and the first field activity for most farms is herbicide application to remove winter annual weeds and cover crops. As the sprayers head to the field, Extension Weed Specialist, Dr. Travis Legleiter has a few reminders and tips to help start the growing season with successful herbicide burndowns in the following discussion.

Pay attention to the weather. The temperatures this winter and early spring have been warmer than average so expect advanced growth of winter annual weeds. The unusually warm weather has been mixed with cold nights and more below freezing temperatures overnight should be expected. These conditions are right for weed growth, but poor for burndown spray applications. Daytime temperatures above 60F with overnight temperatures above 40F are best for effective spring herbicide burndowns. Unfortunately, warmer spring temperatures typically arrive by wind which is not favorable for spring burndowns. Typically, we include either growth regulators (2,4-D or dicamba) and/or contact herbicides such as saflufenacil (Sharpen) in our burndowns which can cause significant off-target injury at very low rates. Be aware of wind conditions and avoid the costly mistake of drifting onto a neighboring crop. Another weather condition we must be aware of is rain and forecasted rainfall. Spring can bring unpredictable

rain patterns and a pop-up storm can wreak havoc on field activities, especially herbicide applications. While you cannot control the rain, be aware of the weather forecast and any potential chances of rainfall. Additionally, and more importantly, be aware of the rain-fastness and any rainfall restrictions of the herbicide products you are applying. Also, be aware that Xtendimax and the Enlist products have language to prohibit applications if excessive rainfall is forecasted in the next 24 to 48 hours.

Ryegrass needs special attention. Ryegrass is an increasing issue on Kentucky corn and soybean acres with numerous failed burndowns occurring over the past few years across the state. Annual ryegrass is one of the first weeds to green up in late winter and will have a head start this year with the warm winter temperatures. One essential key for successful annual ryegrass burndown is making applications before ryegrass reaches 6 inches and only when nighttime temperatures are above 45F for two to three days before and after the application is made.

Make sure you understand which adjuvants are needed for your herbicide applications to be effective. Adjuvants are often needed to ensure the product can effectively find its way into the weed and to its target site of action. The exclusion of an adjuvant such as MSO from a Sharpen application can be the difference between a successful and a failed burndown.

Water is by far the most common carrier but liquid nitrogen as a carrier for spring burndown applications is popular. While the inclusion of a small amount of nitrogen (such as ammonium sulfate) can be beneficial in getting herbicides into plants, larger amounts (such as liquid N) as a carrier may have the opposite effect. Liquid nitrogen can cause rapid plant tissue necrosis and antagonize the movement of a systemic herbicide to its target site of action allowing

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weeds to survive the herbicide application. We recommend using water as your burndown carrier for the most effective herbicide applications. All water is not the same chemistry. Be aware of the properties of the water we use for herbicide applications. As we start a new growing season it may be wise to go ahead and check your water sources' pH and hardness. Adjustment of water hardness and pH can be critical for successful herbicide applications throughout the season. In the challenging conditions of spring burndowns having a quality water carrier can go a long way.

Tank mixing sequence is also important and most often we do it wrong. The label of each product you select will provide information on proper mixing sequence. Take time to learn the correct sequence for the products you have selected and follow it each time you reload.

If you haven't received one already, stop by the extension office or your retailer and pick up a 2024 UK Weed Control Recommendations for KY Grain Crops. This publication provides easy reference to rain-fast restrictions, rates, tank mix partners, and required adjuvants for all of the popular herbicides.