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Farm Update

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Soybean Weed Control Reminders

Dr. Travis Legleiter, our UK Extension Weed Specialist at the Princeton Research Farm wrote the following article on a couple of weed control topics as we are quickly advancing to crop canopy in full season soybean.

Why does it seem like there is more Johnsongrass this year? I believe we have been building our Johnsongrass stock (rhizomes) for the past couple of years. Generally, across the state we had a great April for field work and planting of corn and early soybean and for burndown of winter annuals for May planted crops. Then we received multiple heavy rainfall events in May that kept planters and sprayers out of the field. These spring conditions in combination with a warm winter and fields with existing Johnsongrass rhizomes allowed for a perfect scenario for Johnsongrass to thrive. Following the successful clearing of winter annuals from the field, Johnsongrass was able to immediately emerge from rhizomes and thrive in the late April and May conditions with little interruption from field activities. A few have asked if Johnsongrass is worse because of a lack of residual herbicides. I would argue it could be the opposite. Residual herbicides are only effective on weeds emerging from seed. While there is some Johnsongrass emerging from seed, the majority that we have been witnessing the last two

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months is emerging from rhizomes which are not controlled by residual herbicides. Rhizome established Johnsongrass may actually benefit from a residual herbicide keeping summer annuals from emerging and reducing competition with the already thriving Johnsongrass. This is not to say that residuals should not be used, but rather that a plan to control Johnsongrass postemergence and in the fall should be implemented. While it is counterintuitive to our typical message of spray small weeds, the rapid advancement of rhizome Johnsongrass to large plants over the month of May has been to our advantage for successful control. As a perennial, we should target the plant near reproductive stages to encourage translocation of herbicides to the root and rhizomes to increase long-term control. Applying glyphosate to Johnsongrass in the boot stage is largely more successful than applications to small Johnsongrass plants. Thus, this year sprayers being held out of the field and Johnsongrass gaining substantial size has led to the majority of Johnsongrass being controlled with postemergence glyphosate applications applied to large Johnsongrass. It should be noted though, that while our postemergence applications have been largely successful, we need to start thinking beyond this year for Johnsongrass control. As mentioned above, I believe many fields have been building Johnsongrass rhizome (underground vegetative reproductive structures) networks over the past several years leading to the perceived increase this year. Those observing heavy Johnsongrass infestations this spring should note Those fields and potentially plan for additional control practices in the fall.

Postemergence herbicide applications on soybeans are in full swing. A reminder that all applications of existing stocks of Xtendimax, Engenia, and Tavium must stop on June 30th. All sales of these three products stopped on May 31st. There is not a cutoff date for Enlist Duo and Enlist One for use on Enlist soybean, rather there is a cutoff growth stage of R2 (full

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flowering) allowing for a bit more flexibility with these products. Additionally, as a reminder, Liberty can be applied up to but not including the blooming stage of soybean and glyphosate can be applied through soybean flowering.

Dr. Samuel Revolinski is the newest member of the weed science faculty at the University of Kentucky and has set up an herbicide resistance screening program. If you have weeds that are surviving herbicide application and you suspect resistance, Dr. Revolinski's program can screen the seed for resistance. His program is primarily in search of Italian ryegrass, waterhemp, Palmer amaranth, and Johnsongrass but will evaluate other species if needed. If you would like to have plants from your field screened, please contact the Extension office to help you collect seeds and send them off to Lexington for Dr. Revolinski to screen. This also helps Dr. Revolinski build his database of weed species genetics from across the state to further enhance his program's understanding of herbicide resistance and implementation of methods for controlling herbicide resistant weeds.

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