Late Burndown Control Of Marestail In Full-Season No-Till Soybeans

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Most of the marestail that occurs in Kentucky is resistant or highly tolerant to glyphosate (see young marestail on April 24, 2010 in Figure 1). The use of 2,4-D as a tank mix partner with glyphosate has been a standard option for managing glyphosate-resistant marestail (also known as horseweed) in full-season no-till soybeans. One drawback with this option is that it requires 7 to 30 days between application and soybean planting. Another concern with 2,4-D ester is the risk of drift to nearby sensitive plants.

Some alternatives to 2,4-D for burndown control of marestail include: 1) products containing the active ingredient saflufenacil or 2) Ignite. These options do not require a delay in planting of soybean and generally are not as great of risk of injuring nearby tobacco or similar crops compared with 2,4-D.

Products with saflufenacil

Sharpen (saflufenacil) and Optill (saflufenacil + imazethapyr) are new burndown herbicides labeled to control marestail up to 6 inches in height. The maximum recommended rate for use of Sharpen in soybean is 1 fluid oz/A; whereas, Optill is recommended at 2 oz/A.

Although the labels of both Sharpen and Optill recommend using methylated seed oil (MSO) or crop oil concentrate (COC), there is increasing evidence that MSO is preferred over COC for marestail control. The additional cost of using MSO over COC is probably worth the investment for managing this weed. In addition to MSO the use of ammonium sulfate (AMS) or liquid urea ammonium nitrate (UAN) is also required with Sharpen or Optill.

Sharpen and Optill are somewhat narrow in the spectrum of weeds controlled in burndown treatments; consequently it is likely these products will be tank mixed with glyphosate or another herbicide. The current recommended adjuvant system for tank mixing these products with glyphosate is MSO plus AMS. MSO is normally not recommended with glyphosate, however, there is mounting evidence that indicates MSO is superior to nonionic surfactant for marestail control when tank mixing Sharpen or Optill with glyphosate.

The labels for Sharpen and Optill recommend against tankmixing or using sequential applications within 30 days of other PPO inhibitors such as sulfentrazone (e.g. Authority products) or flumioxazin (e.g. Valor products), due to the risk of crop injury. The interaction of these herbicides may also impact marestail control. Recent research at University of Tennessee indicates that tank mixing Sharpen with Valor limited Sharpen's ability to control emerged marestail plants.

Ignite 280 SL

The use of Ignite 280 SL at 29 oz/A is labeled to control marestail 6 to 12 inches in height. Thorough spray coverage is important for marestail control with Ignite, therefore treatments need to be applied in a minimum of 15 gallons of water per acre. In order to achieve optimum marestail control, weather conditions need to be favorable for plant growth. Warm temperatures, high humidity, and bright sunlight enhance the weed control with Ignite.

While Ignite is usually effective on managing marestail, there may be few instances where large plants are not completely controlled. If growers commit to using Ignite as a burndown option, then Ignite should not be used postemergence 'in crop' on Liberty Link soybean, due to label restrictions. Δ

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