Using XtendiMax® herbicide with VaporGrip® Technology as a Burndown for Pigweeds and Marestail in the Roundup Ready® Xtend Crop System

The Roundup Ready® Xtend Crop System includes the herbicide-resistant crops Roundup Ready 2 Xtend® soybeans, Bollgard® 3 XtendFlex® cotton, Bollgard II® XtendFlex® cotton, and XtendFlex® cotton, and, where geographically-labeled, in-crop applications of XtendiMax® herbicide with VaporGrip® Technology, a restricted use pesticide (RUP). A burndown tank mix of XtendiMax with VaporGrip Technology and a Roundup® brand glyphosate-only agricultural herbicide can control over 350 weed species (please review herbicide labels for weeds controlled). The combination can provide up to 14 days of soil activity on certain small-seeded broadleaf weeds including Palmer amaranth, waterhemp, and marestail. Residual control should be accomplished with the use of different sites-of-action herbicide products tank-mixed with XtendiMax with VaporGrip Technology (for approved tank-mix products and nozzles, please visit XtendiMaxApplicationRequirements.com). Plant-back restrictions apply to crops that are not tolerant to dicamba by genetics or by herbicide-resistant traits.

Actively growing weeds can quickly “eat into” crop yields and profitability by using the nutrients, water, and light that crops need to help maximize yield potential. Starting the growing season clean and applying herbicides when weeds are actively growing and less than 4 inches tall greatly improves herbicide efficacy. In minimum tillage situations, apply XtendiMax with VaporGrip Technology plus a Roundup® brand glyphosate-only agricultural herbicide and an approved drift reducing adjuvant (DRA) with a soil residual herbicide prior to planting. In conventional tillage situations, especially under dry conditions, apply XtendiMax with VaporGrip Technology tank-mixed with a soil residual herbicide at planting to provide weed control on early weed flushes like Palmer amaranth prior to activation of the soil residual herbicide by rain or irrigation.

Tough-to-control weeds such as waterhemp, Palmer amaranth, and marestail can be managed with the use of XtendiMax with VaporGrip Technology. Repeated use of herbicides with the same site of action may lead to selection for resistant weeds; therefore, it is important to use the labeled herbicide rates to help maximize weed control and utilize other herbicides with different sites of action. Integrated weed management principles that should be followed include:

- Fields should be scouted before and after an application to help ensure the appropriate herbicides and rates are used for the weed species and sizes present.
- A broad-spectrum soil-applied residual herbicide(s) with a different site of action should be used.
- Sequential herbicide applications with alternative sites of action should be utilized.
- Labeled XtendiMax with VaporGrip Technology rates should be used.
- Where possible, crop rotation can help manage weeds because different herbicides with different sites of action can be used.
- Non-chemical weed control practices such as tillage, cultivation, cover crops, and crop competition should be included in a weed management program.

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Pigweed Species Control

Bayer research in the Midwest and South in 2019 points to the effectiveness and use of XtendiMax® with VaporGrip® Technology as a burndown herbicide. The research focused on tank mixes. The first was a mix of XtendiMax with VaporGrip Technology (22 fl oz/acre) plus Roundup PowerMAX® herbicide (32 fl oz/acre) plus a DRA. The second was a mix of Enlist® One Herbicide with Colex-D® Technology (25 fl oz/acre) plus Roundup PowerMAX herbicide (32 fl oz/acre). The third tank-mix was Enlist One Herbicide with Colex-D Technology plus Liberty® 280 SL Herbicide. The three tank mixes were similar for percent weed control 14 days after application (Figure 1). After 21 days, the percent weed control for the XtendiMax with VaporGrip Technology tank mix was significantly higher than the other two tank mixes showing better burndown control and the soil activity benefit of XtendiMax with VaporGrip Technology for controlling the new flush of pigweed species that emerged after the POST were applied (Figures 1 and 2).

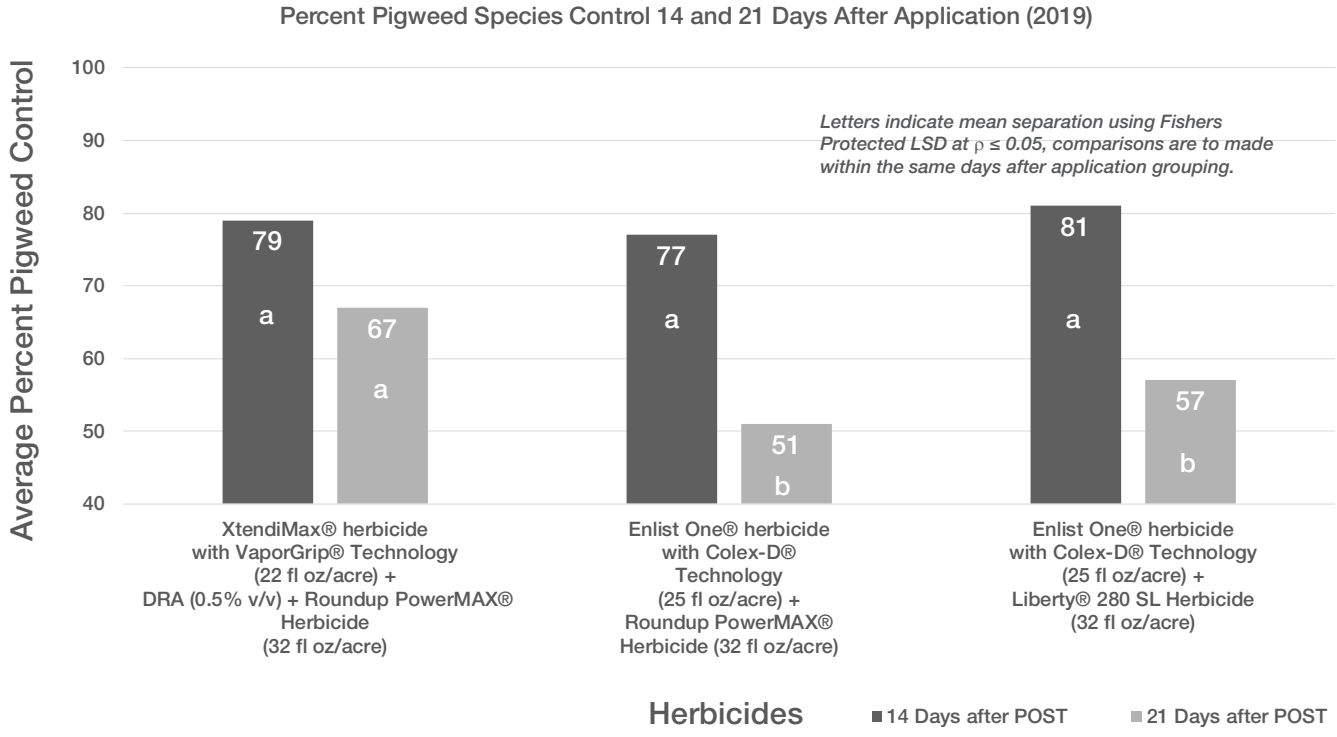

Figure 1. Comparison of average percent weed control efficacy for three tank-mixes at 14 and 21 days after application (DAA). Pigweed species included glyphosate-resistant Palmer amaranth, glyphosate-resistant common waterhemp, common waterhemp, and red root pigweed. The trial locations were in Georgia, Illinois, Iowa, Minnesota, Ohio, Mississippi, and Tennessee.

Figure 2. XtendiMax® herbicide with VaporGrip® Technology (22 fl oz/acre) plus Roundup PowerMAX® Herbicide (32 fl oz/acre) plus 0.5% DRA v/v tank-mix (Left) showing higher postemergence and soil activity advantage over Enlist One® Herbicide with Colex-D® Technology (25 fl oz/acre) plus Roundup PowerMAX Herbicide (32 fl oz/acre) tank-mix (Right) for glyphosate- and PPO-resistant Palmer amaranth at Union City, TN. Application made 6-12-2019. Picture taken 6-24-2019.

Marestail Control

The control of marestail at three locations 28 days after treatment was significantly higher with tank mixes of XtendiMax herbicide with VaporGrip Technology at rates of 22 and 44 fl oz/acre plus Roundup PowerMAX Herbicide (32 fl oz/acre) than tank mixes of Enlist® One Herbicide with Colex-D® Technology at rates of 25 and 32 fl oz/acre plus Roundup PowerMAX Herbicide (32 fl oz/acre) (Figure 3). This is because XtendiMax with VaporGrip Technology, in addition to providing post-emerge/burndown control, is also preventing another flush of weeds to emerge due to its soil activity benefit that helps keep fields clean longer compared to the competitive treatment. The tank mixes with XtendiMax with VaporGrip Technology included a DRA at 0.5% v/v.

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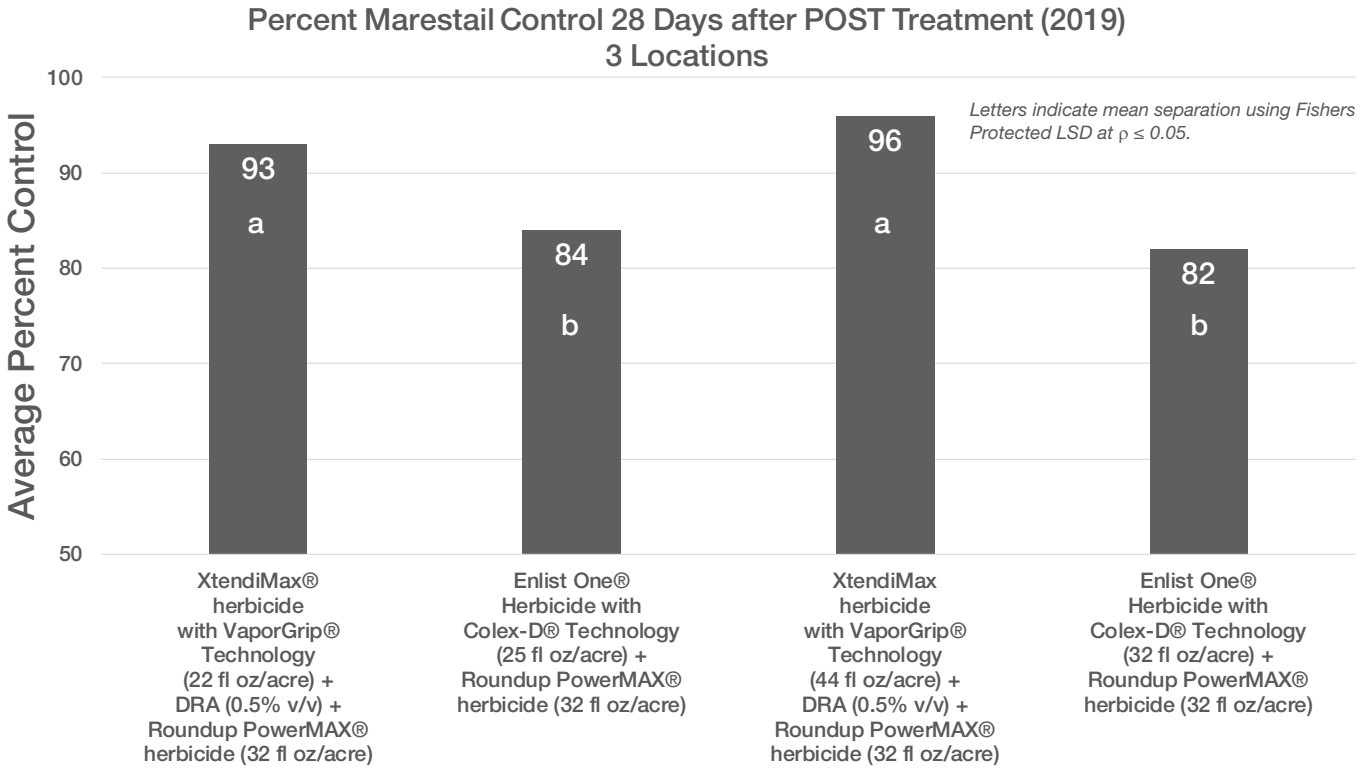

Figure 3. Comparison of weed control efficacy for XtendiMax® herbicide with VaporGrip® Technology compared to Enlist One® Herbicide with Colex-D® Technology 28 days after application for marestail control. The trial locations were in Missouri, Illinois, and Minnesota.

Applicators of XtendiMax® herbicide with VaporGrip® Technology MUST review the label and follow state regulations for application.
Additional information can be found at www.xtendimaxapplicationrequirements.com.

Legal Information