



Soil Activity Benefits of XtendiMax[®] herbicide with VaporGrip Technology (a Restricted Use Pesticide)

Residual herbicides are important for successful weed control. Residual herbicides applied with a burndown herbicide are active in the soil and control weeds through seed, shoot, and root absorption. Residual longevity is necessary because early weed growth has the potential to reduce crop yield if not controlled before reaching a height of 4-inches. Additionally, applying a residual during burndown, can provide the needed protection if spring work load or weather prevents a timely application. Residuals also help reduce the opportunity for the development of herbicide resistance.

XtendiMax[®] herbicide with VaporGrip[®] Technology, a restricted use pesticide (RUP) contains diglycolamine salt of dicamba with VaporGrip[®] Technology. Bayer research has shown that the soil activity of XtendiMax herbicide with VaporGrip Technology can help control tough weeds such as kochia, waterhemp, and Palmer amaranth.

A 2019 research trial conducted at Robinsonville, Mississippi compared XtendiMax herbicide with VaporGrip Technology against the competitive herbicide Enlist One[®] with Colex-D[®] Technology which is a 2,4-D choline salt herbicide. The two herbicides were compared alone, tank-mixed with Warrant[®] Herbicide, a residual, and Warrant Herbicide was applied alone to compare the advantage of a tank-mix. The plots were sprayed with Gramoxone[®] herbicide to kill existing vegetation and tilled to create typical southern style planting beds. The two treatments were applied on May 16, the same day as the tillage operation. Weed control data and pictures were taken 14, 20, and 27 days after the treatment applications.

The data and pictures indicate the significantly higher soil activity of XtendiMax herbicide with VaporGrip Technology applied at 22 fl oz/acre compared to Enlist One with Colex-D Technology applied at 24 fl oz/acre at 13 and 20 days after application (DAA) (Figures 1 and 2).

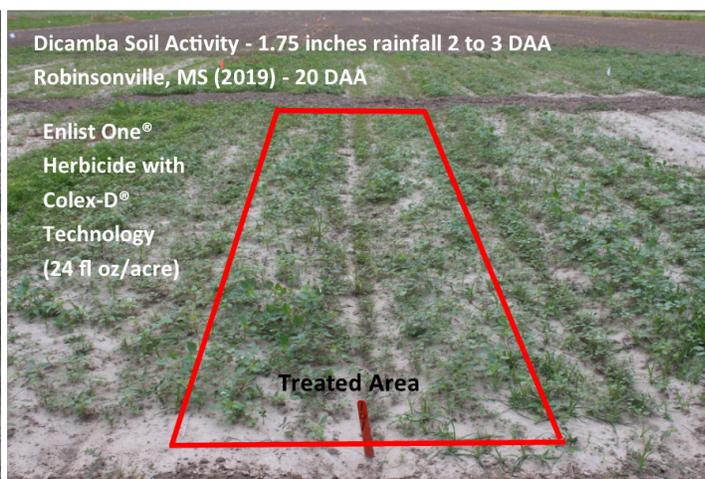
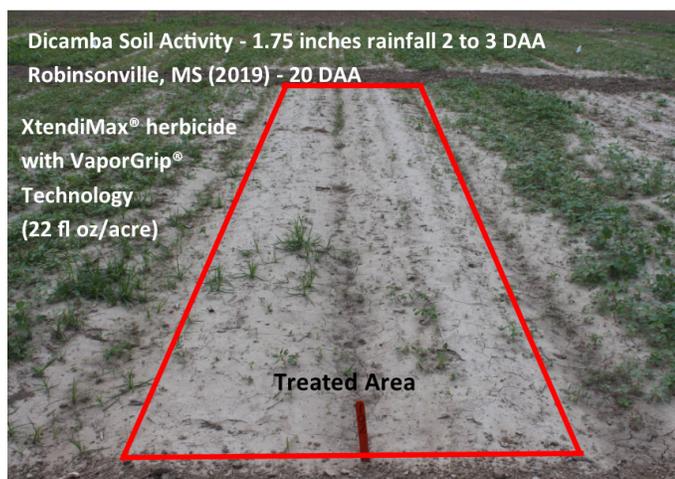


Figure 1. Weed control comparison of XtendiMax[®] herbicide with VaporGrip[®] Technology and Enlist One[®] Herbicide with Colex-D[®] Technology 20 days after application (DAA) at Robinsonville, MS in 2019.

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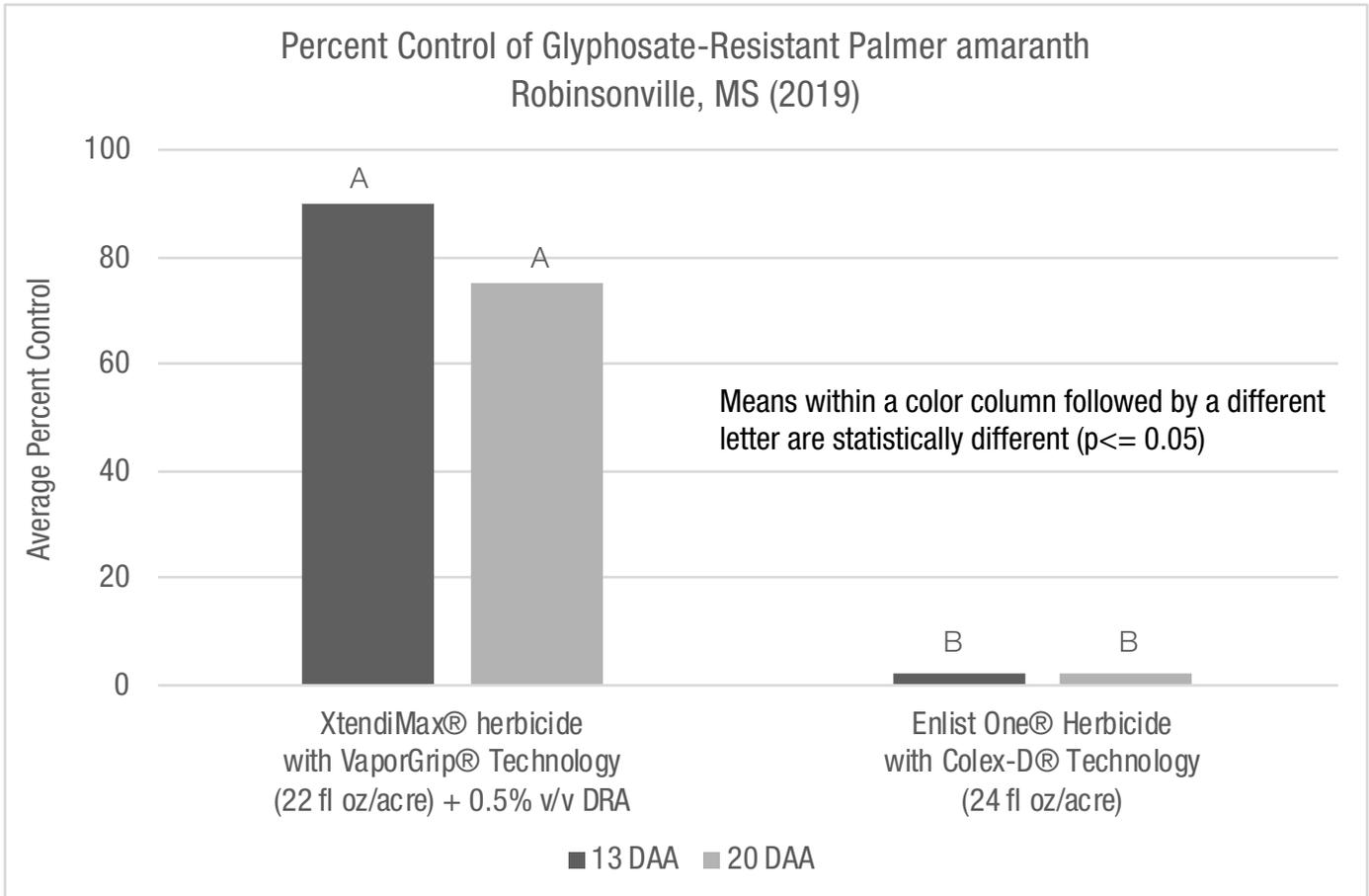


Figure 2. Weed control comparison of XtendiMax[®] herbicide with VaporGrip[®] Technology and Enlist One[®] Herbicide with Colex-D[®] Technology 13 and 20 days after application (DAA) at Robinsonville, MS in 2019.

It is advantageous to utilize a tank-mix with a residual as demonstrated by the comparisons utilizing Warrant[®] Herbicide as a tank-mix partner (Figures 3, 4, and 5). The percent control of glyphosate-resistant Palmer amaranth was 11 and 23 percent greater at 13 and 20 DAA, respectively for XtendiMax[®] herbicide with VaporGrip[®] Technology (22 fl oz/acre) + Warrant Herbicide (48 fl oz/acre) compared to Enlist One[®] Herbicide with Colex-D[®] Technology (24 fl oz/acre) + Warrant Herbicide (48 fl oz/acre) (Figure 5).

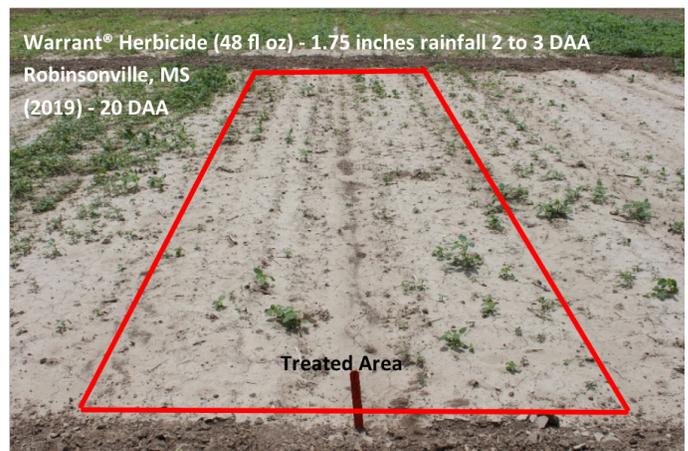


Figure 3. Warrant[®] Herbicide weed control 20 days after application (DAA) at Robinsonville, MS in 2019.

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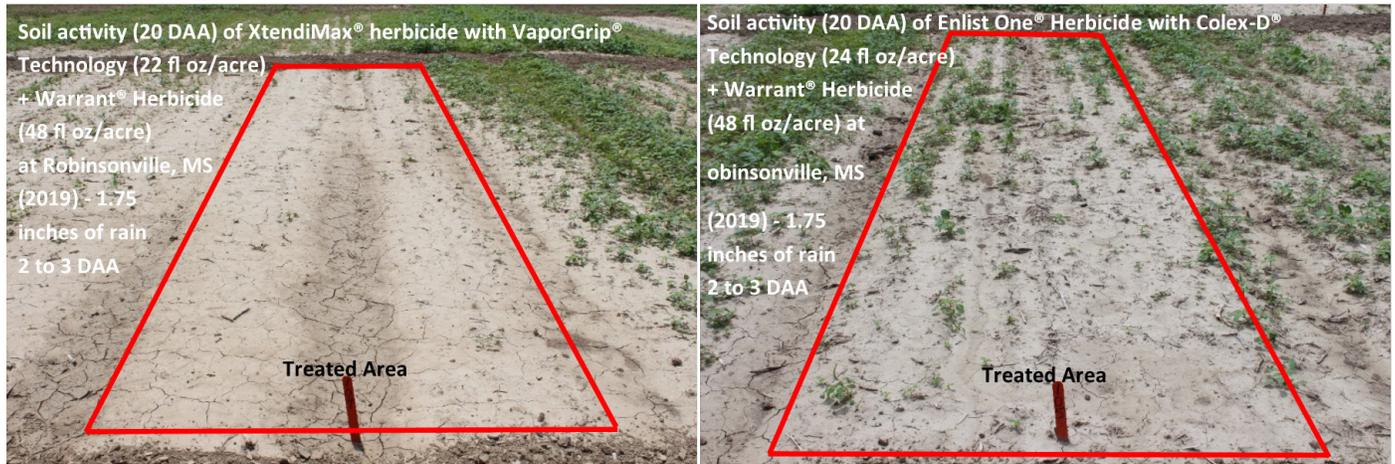


Figure 4. Weed control treatment comparison, 20 days after application (DAA), when Warrant[®] Herbicide was added as a tank-mix partner to the treatments.

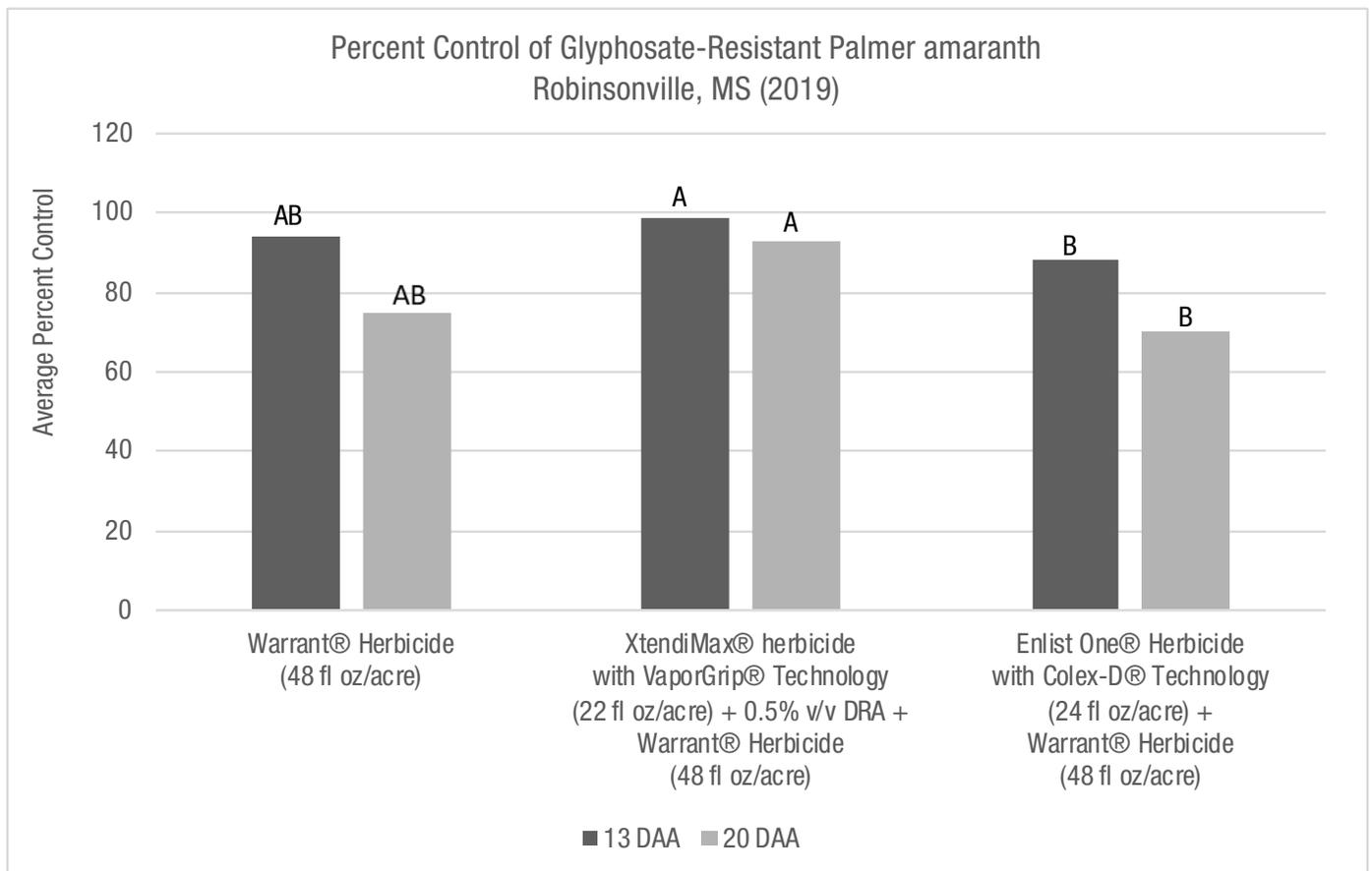


Figure 5. Percent control of glyphosate-resistant Palmer amaranth 13 and 20 days after application (DAA) when Warrant Herbicide is added to the tank-mixes of XtendiMax[®] herbicide with VaporGrip[®] Technology and Enlist One[®] Herbicide with Colex-D[®] Technology, respectively, at Robinsonville, Mississippi (2019).

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In conclusion, the trial shows the increased soil activity of XtendiMax[®] herbicide with VaporGrip[®] Technology compared to Enlist One[®] Herbicide with Colex-D[®] Technology when applied alone per label, respectively. Additionally, the trial supports the increase in residual soil activity when Warrant[®] Herbicide is added per label to XtendiMax herbicide with VaporGrip Technology compared to when Warrant Herbicide is added per label to Enlist One Herbicide with Colex-D Technology.

Sources:

Xtendimax[®] herbicide with VaporGrip[®] Technology label.

Legal Statement

XtendiMax[®] herbicide with VaporGrip[®] Technology is part of the Roundup Ready[®] Xtend Crop System, is a restricted use pesticide and must be used with VaporGrip[®] Xtra Agent (or an equivalent vapor reducing agent). For approved tank-mix products (including VRAs and DRAs), nozzles and other important label information visit XtendiMaxApplicationRequirements.com.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. Performance may vary, from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields.

XtendiMax[®] is a restricted use pesticide. Not all products are registered in all states and may be subject to use restrictions. The distribution, sale, or use of an unregistered pesticide is a violation of federal and/or state law and is strictly prohibited. Check with your local dealer or representative for the product registration status in your state. Tank mixtures: The applicable labeling for each product must be in the possession of the user at the time of application. Follow applicable use instructions, including application rates, precautions and restrictions of each product used in the tank mixture. Not all tank mix product formulations have been tested for compatibility or performance other than specifically listed by brand name. Always predetermine the compatibility of tank mixtures by mixing small proportional quantities in advance. Roundup Ready[®], VaporGrip[®], Warrant[®] and XtendiMax[®] are registered trademarks of Bayer Group. Results may vary, depending on rainfall and soil type. Always use dicamba with residual herbicides in pre-emergence and post emergence applications that have different, effective sites of action, along with other diversified weed management practices.

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