Evaluation of PRE Soybean Herbicides for Waterhemp Control (Brooklyn, WI 2019)

Trial Information

Trial Sponsors:	BASF, Bayer, FMC, Syngenta, Valent, Wisconsin Soybean Marketing Board	
Objective:	Evaluate and demonstrate the effectiveness of multiple PRE-emergence soybean herbicides	
Crop:	Soybean	
Variety:	O'Brien Hybrids OS-2519 LLGT27	
Weed species (pressure): Glyphosate-resistant waterhemp (very high		
Herbicide Application(s):	PRE – 6/3	

For the full report see the 2019 Wisconsin Weed Science Research Report



Wisconsin Cropping Systems Weed Science

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Key Take Home Points from 2019 Data:

- Several PRE-emergence soybean herbicides provided good levels of waterhemp 24-45 days after application.
- Group 2 herbicides (e.g., Pursuit, Classic, First Rate) applied alone were NOT effective on waterhemp.
- Half rates were included in addition to full rates of Group 15 herbicides as some may look to reduce rates to save on overall herbicide costs. The results from these experiments indicate the importance of using full rates as the full rates often improved the overall residual control compared to half rates.
- Soil properties including soil texture, percent organic matter, pH, and geographic restrictions should be considered when selecting products and determining rates as these can have an impact on the efficacy of herbicides with residual activity and potential carryover into subsequent crops
- PRE-emergence herbicide programs containing multiple effective sites of action are recommended to broaden weed control spectrum and to lower selection for additional herbicide resistance.



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Evaluation of PRE Soybean Herbicides for Waterhemp Control (Brooklyn, WI 2019)

Plot pictures taken on 6/25 22 days after the PRE application

The number in the upper right-hand corner is the average % waterhemp control of 4 replications

22 days after PRE (6/25) Untreated Check



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Pursuit – 4 fl oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Classic – 3 oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) FirstRate – 0.6 oz



Wisconsin Cropping Systems Weed Science

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22 days after PRE (6/25) Tricor DF – 0.67 lb



Wisconsin Cropping Systems Weed Science

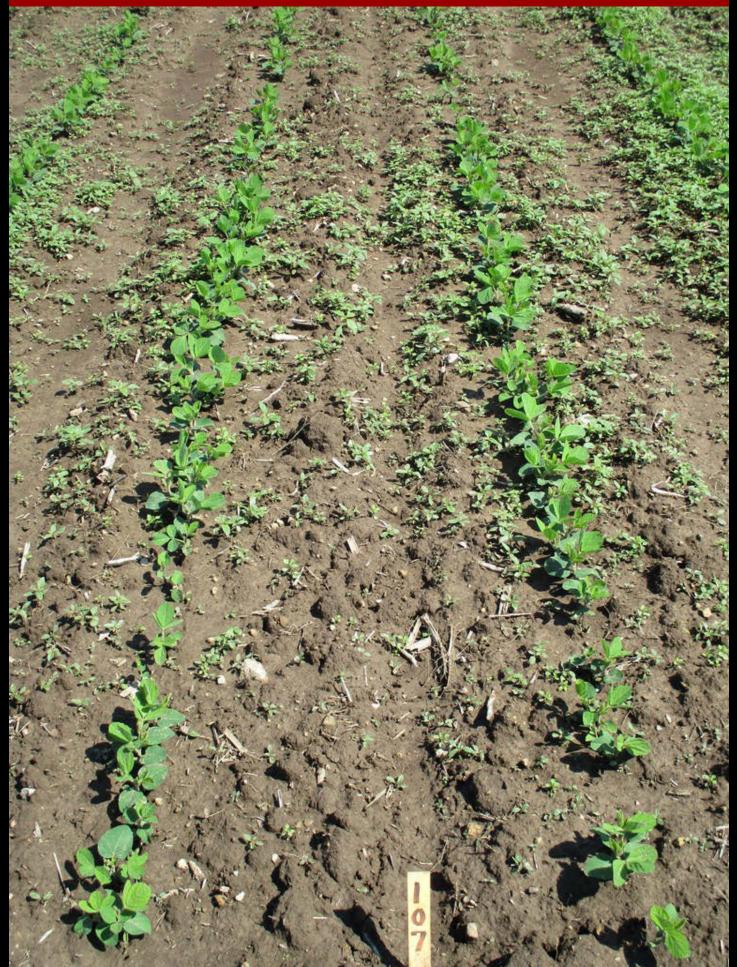
22 days after PRE (6/25) Spartan – 8 fl oz



Wisconsin Cropping Systems Weed Science

©Dr. Rodrigo Werle, University of Wisconsin-Madison

22 days after PRE (6/25) Valor SX – 3 oz



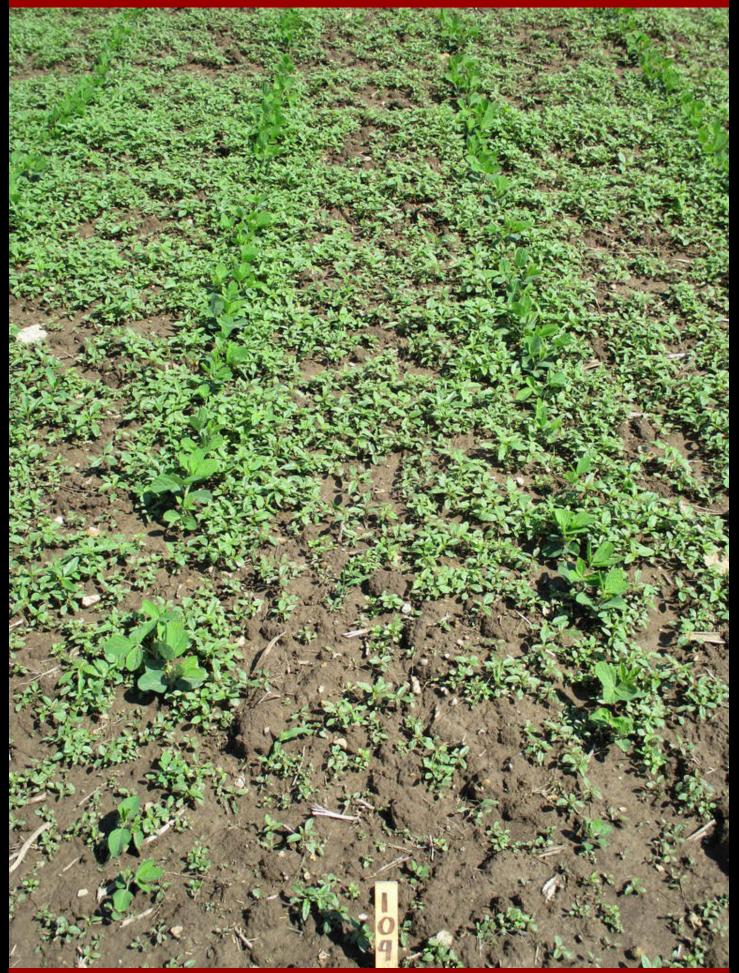
Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Sharpen – 1 fl oz



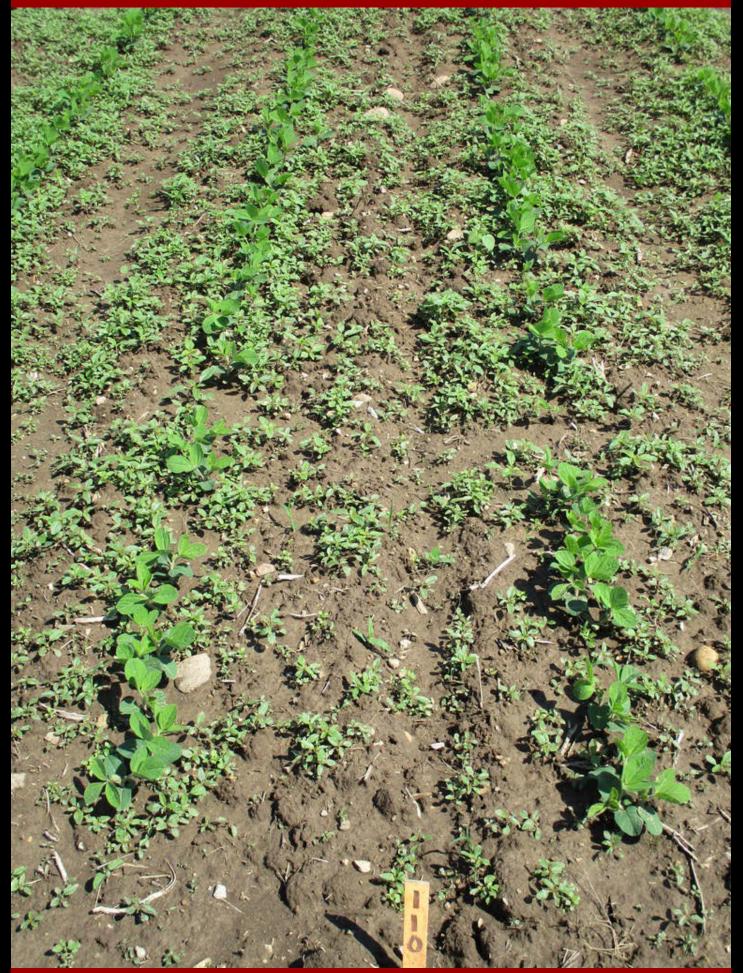
Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Warrant – 24 fl oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Warrant – 48 fl oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Dual II Magnum – 0.84 pt



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Dual II Magnum – 1.67 pt



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Outlook – 9 fl oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Outlook – 18 fl oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Zidua – 1.5 oz



Wisconsin Cropping Systems Weed Science

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22 days after PRE (6/25) Zidua – 3 oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Authority Assist – 10 fl oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Sonic – 6.45 oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Surveil – 3.5 oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Valor XLT – 3 oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) BroadAxe XC – 25 fl oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Authority MTZ – 16 oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Authority Supreme – 8 fl oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Verdict – 5 fl oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Prefix – 2 pt



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Fierce – 3 oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Boundary – 1.8 pt



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Canopy DF – 2.25 oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Enlite – 2.8 oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Afforia – 2.5 oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Trivence – 6 oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Zidua PRO – 6 fl oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Fierce XLT – 3.75 oz



Wisconsin Cropping Systems Weed Science

22 days after PRE (6/25) Fierce MTZ – 1 pt



Wisconsin Cropping Systems Weed Science