

2021 WiscWeeds Herbicide Comparison for Residual Weed Control in Soybean on Sandy Soils

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Study Objective: PRE-emergence herbicide selection for fields with sandy soils, low organic matter and high pH can be challenging due to pesticide label restrictions, crop injury, and environmental concerns. The objective of this study was to evaluate the efficacy of PRE herbicides for waterhemp control in soybean grown in sandy soils.

Weed Control Ratings 2021 Study (1 year)		Navarino, WI	
		Waterhemp	Common Lambsquarters
		50 days after treatment (DAT) R1 soybean growth stage	
SOA Group	Herbicide & Application rate (ac ⁻¹)	Greater than 90% is considered effective Average % control (standard error)	
2	Pursuit (4 fl oz)	0 (0)	100 (0)
5	Tricor (8 oz)	88 (4)	94 (5)
14	Valor (3 oz)	91 (3)	96 (4)
14	Spartan (4.5 fl oz)	94 (3)	95 (5)
15	Warrant (48 fl oz)	96 (4)	12 (7)
15	Dual II Magnum (21.28 fl oz)	95 (4)	15 (9)
15	Outlook (14 fl oz)	88 (5)	13 (13)
15	Zidua (2.1 oz)	94 (4)	83 (3)
2 + 14	Authority Assist (6 fl oz)	90 (4)	100 (0)
14 + 15	Broadaxe XC (25 fl oz)	94 (4)	96 (3)
14 + 15	Fierce (3 oz)	97 (3)	100 (0)



Waterhemp



Common lambsquarters

Stay tuned!

Trial will be replicated in multiple locations in 2022, and a final data report will be available in the Fall of 2022, complete with statistical analysis. Herbicide rates were based on soil organic matter, soil pH, groundwater depth application restrictions, and additional label requirements. Herbicide choices should be based on both herbicide efficacy and price. Length of rotational restrictions should always be considered.

Always read, follow, and understand the pesticide label. **The label is the law.**
Information presented does not constitute a recommendation or endorsement.

The authors would like to acknowledge our industry sponsors for providing chemical products. Thanks to our host farm and members of the Cropping Systems Weed Science Program for their technical assistance.



Cropping Systems Weed Science
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Preliminary Results – Not for publication



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Site Description							
Location*	Target Weed	Previous Crop	Soil Type	% OM	pH	Planting Date	Hybrid**
Navarino	Waterhemp	Corn	Rousseau loamy sand	2.2	7.5	5/12	22T18 (Pioneer®)

*Field was chisel-plowed and spring cultivated .

**Soybean planted at 160,000 seeds/acre.

Herbicide Application Information				
Location	App. Date	Air Temp. (F)	Nozzle Tips	Pressure (psi)
Navarino	5/13	60	TTI 110015	35

Additional Resources:

- [Residual Control of Waterhemp with Pre-emergence Herbicides in Soybean](#)
- [2020 Wisconsin Weed Science Research Report](#)
- [Evaluating Efficacy of Pre-emergence Soybean Herbicides Using Field Treated Soil in Greenhouse Bioassays](#)

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