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.

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Preliminary Results – Not for publication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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