WiscWeeds Herbicide Comparison for Residual Waterhemp Control in Corn

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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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Site description

Soil type: Sebewa
Crop: Corn
% OM: 4.3
Hybrid: DKC 54-38 RIB
pH: 6.4
Corn planting date: 5/31/19
Planting depth: 2.0 in
Row spacing: 30 in
Plot size: 10 x 30 ft
Planting population: 35,000
Previous crop and tillage: soybean; early spring chisel plowed and field cultivated and field cultivated day of planting
Main weed present: waterhemp
Experimental design: 4 reps, randomized complete block design

Herbicide application information

Date treated: 6/13/19
Treatment: POST at V2 Growth Stage
Air temperature (°F): 82
Wind speed (mph)/direction: 6-9 SW
Application equipment: CO2 backpack sprayer, GPA: 15

Stay tuned!

Trial will be replicated in multiple locations in 2020, and a final data report will be available in the Fall of 2020, complete with statistical analysis.

Waterhemp Residual Control – Preliminary Data

SOA Group	Herbicide and application rate (ac^{-1})	Active ingredient [ai concentration]	Equivalent Tank Mix (ac^{-1})	Waterhemp (Brooklyn, WI) Corn growth stage (days after treatment) V7 (25 DAT)	VT (50 DAT)
				Relative Rank	
2	Python (1 oz)	flumetsulan [80%]	NA	5	5
2	Resolve SG (1.25 oz)	rimsulfuron [25%]	NA	5	5
4	Stinger (6 fl oz)	clopyralid [3.0 lb gal^{-1}]	NA	5	5
4	Diflexx (10 fl oz)	dicamba [4.0 lb gal^{-1}]	NA	5	5
5	Aatrex (24 fl oz)	atrazine [4.0 lb gal^{-1}]	NA	3	3
5	Aatrex (48 fl oz)	atrazine [4.0 lb gal^{-1}]	NA	3	2
5	Princep 4FL (64 fl oz)*	simazine [4.0 lb gal^{-1}]	NA	3	2
15	Harness (24 fl oz)	acetochlor [7.0 lb gal^{-1}]	NA	1	1
15	Dual II Magnum (26.7 fl oz)	S-metolachlor [7.64 lb gal^{-1}]	NA	3	3
15	Outlook (17.5 fl oz)	dimethenamid-P [6.0 lb gal^{-1}]	NA	2	2
15	Zidua (3.25 fl oz)	pyroxasulfone [85%]	NA	4	3
27	Balance Flexx (4.5 fl oz)	isoxaflutole [2.0 lb gal^{-1}]	NA	3	2
27	Armezon (0.75 fl oz)	topramezone [2.8 lb gal^{-1}]	NA	5	5
27	Callisto (3 fl oz)	mesotrione [4.0 lb gal^{-1}]	NA	4	4
27	Laudis (3 fl oz)	tembotrione [3.5 lb gal^{-1}]	NA	5	5
15 & 27	Armezon PRO (20 fl oz)	dimethenamid-P + topramezone	17.5 fl oz Outlook + 0.71 fl oz Armezon	2	2
15 & 27	Harness Max (64 fl oz)	acetochlor + mesotrione	32.2 fl oz Harness + 5.28 fl oz Callisto	1	1
15 & 27	Acuron Flexi (64 fl oz)	S-metolachlor + mesotrione + bicyclopyrone	24.0 fl oz Dual II Magnum + 5.12 fl oz Callisto + 0.64 oz bicyclopyrone	1	1
2 & 27	Capreno (3 fl oz)	thiencarbazone-Methyl + tembotrione	0.21 oz thiencarbazone-Methyl + 2.47 fl oz Laudis	5	5
2 & 27	Corvus (5.6 fl oz)	thiencarbazone-Methyl + isoxaflutole	0.40 oz thiencarbazone-Methyl + 5.26 fl oz Balance Flexx	3	2
2 & 27	Realm Q (4 oz)	rimsulfuron + mesotrione	1.2 oz Resolve SG + 2.5 oz Mesotrione 50WG	4	3
4 & 27	Diflexx Duo (28 fl oz)	dicamba + tembotrione	8.82 fl oz Difexx + 2.16 fl oz Laudis	5	5
5 & 15	Bicep Lite II Magnum (56 fl oz)	atrazine + S-metolachlor	37.4 fl oz Aatrex + 24.4 fl oz Dual II Magnum	1	1
5 & 15	Harness Xtra (64 fl oz)	atrazine + acetochlor	27.2 fl oz Aatrex + 39.3 fl oz Harness	1	1
2 & 4	Hornet WDG (4 oz)	flumetsulam + clopyralid	1.0 oz Python + 6.75 oz Stinger	5	5
14 & 15	Verdict (15 fl oz)*	saflufenacil + dimethenamid-P	3 fl oz Sharpen + 12.5 fl oz Outlook	1	1
9 & 15 & 27	Halex GT (64 fl oz)	glyphosate + S-metolachlor + mesotrione	29.7 fl oz Roundup PowerMax + 17.5 fl oz Dual II Magnum + 3.34 fl oz Callisto	1	1
4 & 15 & 27	Resicore (80 fl oz)	clopyralid + acetochlor + mesotrione	5.06 fl oz Stinger + 32.0 fl oz Harness + 6.0 fl oz Callisto	1	1
2 & 4 & 15	Surestart II (40 fl oz)	flumetsulam + clopyralid + acetochlor	0.75 oz Python + 3.87 fl oz Stinger + 21.4 fl oz Harness	1	1
5 & 15 & 27	Acuron (80 fl oz)	atrazine + S-metolachlor + mesotrione + bicyclopyrone	20 fl oz Aatrex + 22.4 fl oz Dual II Magnum + 4.8 fl oz Callisto + 0.80 oz bicyclopyrone	1	1

Rank: (1) ≥ 90% control (2) 80-89 % (3) 70-79% (4) 60-69% (5) < 60%

*Princep 4 FL and Verdict are labeled only for PRE-emergence applications in corn

Herbicides were tank mixed with Liberty (glufosinate, Group 10) at 32 fl oz ac^{-1}

Objective: Evaluate the residual control of waterhemp with single and multiple SOA herbicide products commonly used in corn production systems in Wisconsin.

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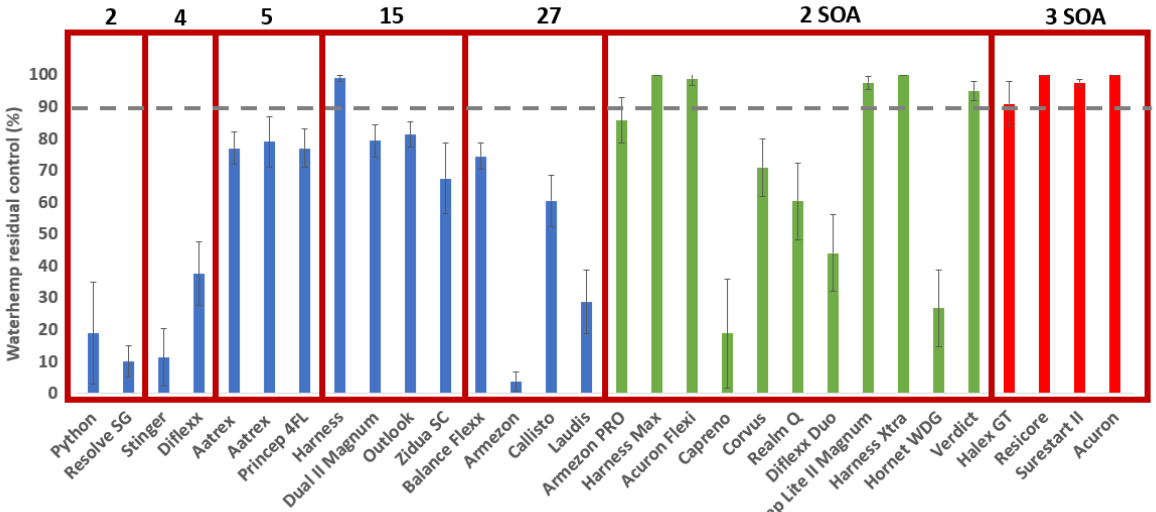
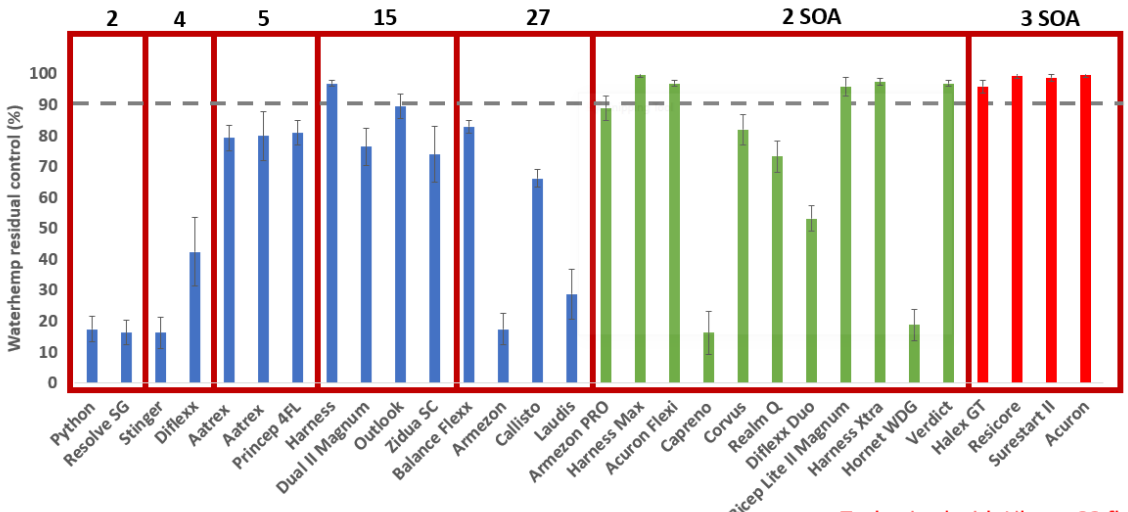
Waterhemp Residual Control 25 DAT (corn, V7 stage) Brooklyn, WI 2019



Effective control

Tank mixed with Liberty 32 fl oz/A

Waterhemp Residual Control 50 DAT (corn, VT stage) Brooklyn, WI 2019



Effective control

Tank mixed with Liberty 32 fl oz/A

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Preliminary Results – Not for publication

1 Year Data

UW-Madison Cropping Systems Weed Science Blog: http://www.wiscweeds.info/