

# Restraint Weed Control and Crop Safety Janesville, WI 2021

## Trial Information

Trial Sponsor(s): Summit Agro

Objective: Compare single and split applications of Restraint to industry standards for weed control and crop safety.

Crop: Corn

Hybrid: Dekalb DKC 54-38 RIB

Weed species (pressure): Giant ragweed (moderate-high)  
Velvetleaf (moderate)

Herbicide Application(s): PRE – 5/24  
POST – 6/15 (V4 corn)

For the full report see trial #21-ROK-CN04 in the [2021 Wisconsin Weed Science Research Report](#)



**Cropping Systems Weed Science**  
UNIVERSITY OF WISCONSIN-MADISON



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Trt #	Herbicide (rate acre <sup>-1</sup> )	Crop Injury (%) <sup>c</sup>		Giant Ragweed (%)				Velvetleaf (%)			Yield <sup>b</sup> bu acre <sup>-1</sup>
		6/23	6/29	6/8	6/29	7/15	11/3	6/8	6/29	7/15	
1	Untreated Check	0	0	0	0	0	0	0	0	0	79 b
<b>Two-Pass – PRE (5/24) fb POST (6/15)</b>											
2	Restraint (36 oz) + AAtrex (2 pt) <b>fb</b> Shieldex (1 oz) + AAtrex (1 pt) + COC 1% v/v	5	5	49	88	87	96	37	88	84	250 a
3	Restraint (18 oz) + AAtrex (2 pt) <b>fb</b> Restraint (18 oz) + AAtrex (1 pt) + COC 1% v/v	11	11	39	86	86	96	55	95	89	247 a
4	Resicore (40 oz) + AAtrex (2 pt) <b>fb</b> Restraint (30 oz) + AAtrex (1 pt) + COC 1% v/v	13	11	65	92	91	98	75	99	99	246 a
5	Resicore (40 oz) + AAtrex (2 pt) <b>fb</b> Resicore (40 oz) + AAtrex (1 pt) + COC 1% v/v	10	8	66	96	96	99	72	100	100	250 a
<b>LSD (<math>\alpha=0.10</math>)</b>		<b>2</b>	<b>4</b>	<b>10</b>	<b>7</b>	<b>4</b>	<b>2</b>	<b>17</b>	<b>ns</b>	<b>5</b>	<b>29</b>
<b>p value</b>		<b>&lt;0.001</b>	<b>0.063</b>	<b>0.002</b>	<b>0.084</b>	<b>0.005</b>	<b>0.052</b>	<b>0.014</b>	<b>0.304</b>	<b>0.003</b>	<b>&lt;0.001</b>

<sup>a</sup> Visual control from 70-100% is illustrated on a color scale with green representing greater weed control values.

<sup>b</sup> Yield values with the same letter are not significantly different.

<sup>c</sup> Crop injury symptoms included leaf necrosis and chlorosis.

# Restraint Weed Control and Crop Safety

## Janesville, WI 2021

Plot pictures taken on 6/15  
22 days after the PRE application  
The day of the POST application

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

22 days after PRE (6/15)  
Untreated Check

0%



22 days after PRE (6/15)  
PRE: 36 fl oz Restraint + 2 pt AAtrex

30%



22 days after PRE (6/15)  
PRE: 18 fl oz Restraint + 2 pt AAtrex

29%



22 days after PRE (6/15)  
PRE: 40 fl oz Resicore + 2 pt AAtrex

51%



# Restraint Weed Control and Crop Safety

## Janesville, WI 2021

Plot pictures taken on 6/23

30 days after the PRE application

8 days after the POST application

The number in the upper right-hand corner is the average % corn leaf chlorosis/necrosis of 4 replications

30 days after PRE (6/23)  
Untreated Check

0%



8 days after POST (6/23)

PRE: 36 fl oz Restraint + 2 pt AAtrex *fb*

5%

POST: 1 fl oz Shieldex + 1 pt AAtrex + COC



8 days after POST (6/23)

PRE: 18 fl oz Restraint + 2 pt AAtrex *fb*

11%

POST: 18 fl oz Restraint + 1 pt AAtrex + COC



8 days after POST (6/23)

PRE: 40 fl oz Resicore + 2 pt AAtrex fb

POST: 30 fl oz Restraint + 1 pt AAtrex + COC

13%



8 days after POST (6/23)

PRE: 40 fl oz Resicore + 2 pt AAtrex *fb*

POST: 40 fl oz Resicore + 1 pt AAtrex + COC

10%



# Restraint Weed Control and Crop Safety

## Janesville, WI 2021

Plot pictures taken on 6/29

36 days after the PRE application  
14 days after the POST application

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

36 days after PRE (6/29)  
Untreated Check

0%



14 days after POST (6/29)

PRE: 36 fl oz Restraint + 2 pt AAtrex *fb*

88%

POST: 1 fl oz Shieldex + 1 pt AAtrex + COC



14 days after POST (6/29)

PRE: 18 fl oz Restraint + 2 pt AAtrex *fb*

86%

POST: 18 fl oz Restraint + 1 pt AAtrex + COC



14 days after POST (6/29)

PRE: 40 fl oz Resicore + 2 pt AAtrex *fb*

91%

POST: 30 fl oz Restraint + 1 pt AAtrex + COC



14 days after POST (6/29)

PRE: 40 fl oz Resicore + 2 pt AAtrex *fb*

96%

POST: 40 fl oz Resicore + 1 pt AAtrex + COC



# Restraint Weed Control and Crop Safety

## Janesville, WI 2021

Plot pictures taken on 7/15

52 days after the PRE application  
30 days after the POST application

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

52 days after PRE (7/15)  
Untreated Check

0%



30 days after POST (7/15)

PRE: 36 fl oz Restraint + 2 pt AAtrex *fb*

87%

POST: 1 fl oz Shieldex + 1 pt AAtrex + COC



30 days after POST (7/15)

PRE: 18 fl oz Restraint + 2 pt AAtrex *fb*

86%

POST: 18 fl oz Restraint + 1 pt AAtrex + COC



30 days after POST (7/15)

PRE: 40 fl oz Resicore + 2 pt AAtrex *fb*

91%

POST: 30 fl oz Restraint + 1 pt AAtrex + COC



30 days after POST (7/15)

PRE: 40 fl oz Resicore + 2 pt AAtrex *fb*

96%

POST: 40 fl oz Resicore + 1 pt AAtrex + COC

