

# Evaluation of Soybean Soil Residual Herbicides for Giant Ragweed Control (Janesville, WI 2020)

## Trial Information

Trial Sponsor: Wisconsin Soybean Marketing Board

Objective: Evaluate the residual control of giant ragweed of multiple PRE-emergence soybean herbicides

Crop: Soybean

Variety: AG21X7

Weed species (pressure): Giant ragweed (high-very high);

Herbicide Application(s): PRE – 5/12

For the full report see trial #20-ROK-SB15 in the [2020 Wisconsin Weed Science Research Report](#)



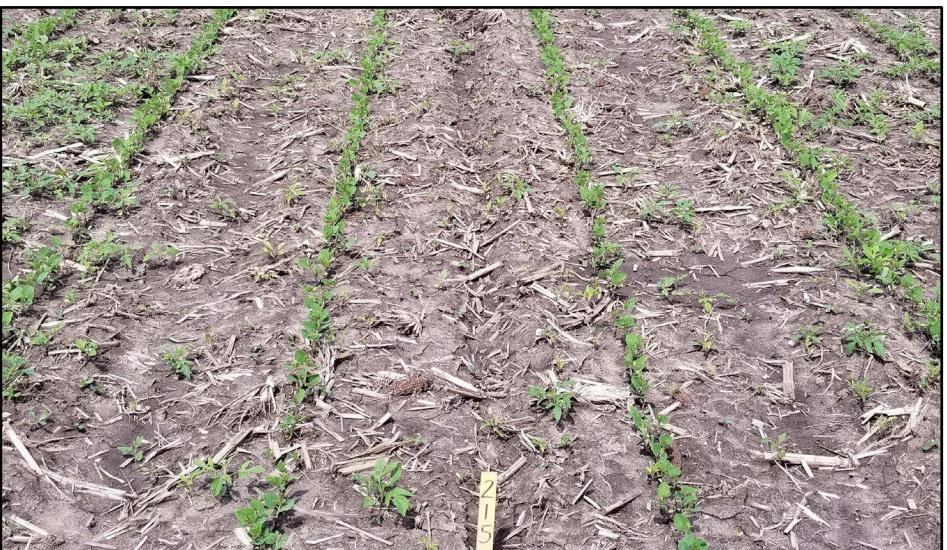
**Cropping Systems Weed Science**  
UNIVERSITY OF WISCONSIN-MADISON



# Evaluation of Soybean Soil Residual Herbicides for Giant Ragweed Control (Janesville, WI 2020)

## Key Take Home Points from 2020 Data:

- Several PRE-emergence soybean herbicides evaluated provided good levels of giant ragweed 22 days after application
- Giant ragweed control was poor for all herbicides at 43 days after application
  - Demonstrates that a 1-pass herbicide program is not recommended for giant ragweed control
- Treatments containing group 2 (ALS) active ingredients were more effective, particularly cloransulam (FirstRate) and chlorimuron (Classic)
  - 8 of the top 10 herbicides at 22 DAT contained a group 2 herbicide active ingredient
- Herbicides with 2 or more active ingredients/sites of action generally improved residual control of giant ragweed.
  - Group 2 (ALS) and 14 (PPO) was the most effective combination



Giant Ragweed Control %		
Herbicide Treatment	22 DAT	43 DAT
4 fl oz Pursuit	66	43
3 oz Classic	79	35
0.6 oz FirstRate	77	50
10.7 oz Tricor DF	56	19
8 fl oz Spartan	48	11
3 oz Valor SX	77	29
1 fl oz Sharpen	18	1
48 fl oz Warrant	3	0
26.7 fl oz Dual II Magnum	21	10
18 fl oz Outlook	60	15
3 oz Zidua	25	10
10 fl oz Authority Assist	74	34
6.45 oz Sonic	88	61
3.5 oz Surveil	87	61
3 oz Valor XLT	83	48
25 fl oz BroadAxe XC	35	5
16 oz Authority MTZ	45	3
8 fl oz Authority Supreme	31	6
5 fl oz Verdict	36	8
2 pt Prefix	84	41
3 oz Fierce	68	24
1.8 pt Boundary	28	11
2.25 oz Canopy DF	66	35
2.8 oz Enlite	56	9
2.5 oz Afforia	45	9
6 oz Trivence	80	34
6 fl oz Zidua PRO	79	56
3.75 oz Fierce XLT	83	44
1 pt Fierce MTZ	77	35
<b>LSD (0.10)</b>	<b>16</b>	<b>18</b>
<b>p-value</b>	<b>&lt;0.01</b>	<b>&lt;0.01</b>

# Evaluation of Soybean Soil Residual Herbicides for Giant Ragweed Control (Janesville, WI 2020)

Plot pictures taken on 6/3

22 days after the PRE application

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

**22 days after PRE (6/3)**  
**Untreated Check**

**0%**



**22 days after PRE (6/3)  
PRE: 4 fl oz Pursuit**

**66%**



**22 days after PRE (6/3)**  
**PRE: 3 oz Classic**

**79%**



**22 days after PRE (6/3)  
PRE: 0.6 oz FirstRate**

**77%**



**22 days after PRE (6/3)**  
**PRE: 10.7 oz Tricor DF**

**56%**



**22 days after PRE (6/3)  
PRE: 8 fl oz Spartan**

**48%**



22 days after PRE (6/3)

PRE: 3 oz Valor SX

77%



**22 days after PRE (6/3)**  
**PRE: 1 fl oz Sharpen**

**18%**



**22 days after PRE (6/3)  
PRE: 48 fl oz Warrant**

**3%**



**22 days after PRE (6/3)  
PRE: 26.7 fl oz Dual II Magnum**

**21%**



**22 days after PRE (6/3)  
PRE: 18 fl oz Outlook**

**60%**



**22 days after PRE (6/3)  
PRE: 3 oz Zidua**

**25%**



22 days after PRE (6/3)

PRE: 10 fl oz Authority Assist

74%



**22 days after PRE (6/3)**  
**PRE: 6.45 oz Sonic**

**88%**



**22 days after PRE (6/3)  
PRE: 3.5 oz Surveil**

**87%**



**22 days after PRE (6/3)  
PRE: 3 oz Valor XLT**

**83%**



**22 days after PRE (6/3)  
PRE: 25 fl oz Broadaxe XC**

**35%**



22 days after PRE (6/3)

PRE: 16 oz Authority MTZ

45%



22 days after PRE (6/3)

PRE: 8 fl oz Authority Supreme

31%



**22 days after PRE (6/3)  
PRE: 5 fl oz Verdict**

**36%**



22 days after PRE (6/3)

84%

PRE: 2 pt Prefix



**22 days after PRE (6/3)**

**PRE: 3 oz Fierce**

**68%**



**22 days after PRE (6/3)  
PRE: 1.8 pt Boundary**

**28%**



**22 days after PRE (6/3)  
PRE: 2.25 oz Canopy DF**

**66%**



**22 days after PRE (6/3)  
PRE: 2.8 oz Enlite**

**56%**



**22 days after PRE (6/3)**  
**PRE: 2.5 oz Afforia**

**45%**



**22 days after PRE (6/3)**  
**PRE: 6 oz Trivence**

**80%**



**22 days after PRE (6/3)**  
**PRE: 6 fl oz Zidua PRO**

**79%**



**22 days after PRE (6/3)  
PRE: 3.75 oz Fierce XLT**

**83%**



**22 days after PRE (6/3)  
PRE: 1 pt Fierce MTZ**

**77%**



# Evaluation of Soybean Soil Residual Herbicides for Giant Ragweed Control (Janesville, WI 2020)

Plot pictures taken on 6/24

43 days after the PRE application

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

**43 days after PRE (6/24)**

**0%**

**Untreated Check**



43 days after PRE (6/24)

PRE: 4 fl oz Pursuit

43%



43 days after PRE (6/24)

PRE: 3 oz Classic

35%



43 days after PRE (6/24)

PRE: 0.6 oz FirstRate

50%



**43 days after PRE (6/24)**

**PRE: 10.7 oz Tricor DF**

**19%**



43 days after PRE (6/24)

PRE: 8 fl oz Spartan

11%



43 days after PRE (6/24)

PRE: 3 oz Valor SX

29%



43 days after PRE (6/24)

PRE: 1 fl oz Sharpen

1%



**43 days after PRE (6/24)**

**PRE: 48 fl oz Warrant**

**0%**



**43 days after PRE (6/24)  
PRE: 26.7 fl oz Dual II Magnum**

**10%**



**43 days after PRE (6/24)**

**PRE: 18 fl oz Outlook**

**15%**



43 days after PRE (6/24)

PRE: 3 oz Zidua

10%



**43 days after PRE (6/24)  
PRE: 10 fl oz Authority Assist**

**34%**



43 days after PRE (6/24)

PRE: 6.45 oz Sonic

61%



43 days after PRE (6/24)

PRE: 3.5 oz Surveil

61%



43 days after PRE (6/24)

PRE: 3 oz Valor XLT

48%



**43 days after PRE (6/24)  
PRE: 25 fl oz Broadaxe XC**

**5%**



**43 days after PRE (6/24)  
PRE: 16 oz Authority MTZ**

**3%**



**43 days after PRE (6/24)**  
**PRE: 8 fl oz Authority Supreme**

**6%**



**43 days after PRE (6/24)**

**PRE: 5 fl oz Verdict**

**8%**



43 days after PRE (6/24)

41%

PRE: 2 pt Prefix



**43 days after PRE (6/24)**

**PRE: 3 oz Fierce**

**24%**



**43 days after PRE (6/24)**

**PRE: 1.8 pt Boundary**

**11%**



43 days after PRE (6/24)

PRE: 2.25 oz Canopy DF

35%



**43 days after PRE (6/24)**

**PRE: 2.8 oz Enlite**

**9%**



**43 days after PRE (6/24)**

**PRE: 2.5 oz Afforia**

**9%**



43 days after PRE (6/24)

PRE: 6 oz Trivence

34%



**43 days after PRE (6/24)**

**PRE: 6 fl oz Zidua PRO**

**56%**



**43 days after PRE (6/24)**

**PRE: 3.75 oz Fierce XLT**

**44%**



43 days after PRE (6/24)

PRE: 1 pt Fierce MTZ

35%

