

# 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

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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



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## 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)

0%

Untreated Check





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: 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)

PRE: 2 pt Prefix

84%





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)

43%

PRE: 4 fl oz Pursuit





43 days after PRE (6/24)

35%

PRE: 3 oz Classic





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)

61%

PRE: 3.5 oz Surveil





43 days after PRE (6/24)

48%

PRE: 3 oz Valor XLT





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%

