

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



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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
LSD (0.10)	16	18
p-value	<0.01	<0.01



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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: 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: 5 fl oz Verdict

36%





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)

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)

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%

