

# Components of Corn Herbicide Premixes (Janesville, WI 2023)

## Trial Information

Trial Sponsor(s): BASF

Objective: Compare residual control of \***Surtain** and active ingredient (ai) components to Acuron and Resicore XL and their ai components

Crop: Corn

Variety: DKC50-87 RIB

Weed species (pressure): giant ragweed (high-very high)

Herbicide Application(s): PRE – 5/4

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For the full report see trial #23-ROK-CN06 in the [2023 Wisconsin Weed Science Research Report](#)

\***Surtain** is a new corn herbicide pre-mix, developed by BASF, containing encapsulated saflufenacil (Sharpen) and pyroxasulfone (Zidua). As of publication, EPA registration is still pending but is expected in 2024.



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

**BASF**

We create chemistry

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Trt #	Herbicide (rate acre <sup>-1</sup> )	Giant Ragweed (%)				
		21 DAT	27 DAT	35 DAT	42 DAT	54 DAT
1	Untreated Check	0	0	0	0	0
<b>One-Pass – PRE (5/4)</b>						
4	Surtain (14 fl oz)	67	66	56	23	15
2	Sharpen (3.05 fl oz)	81	86	79	66	43
3	Zidua SC (3.33 fl oz)	20	21	18	12	5
7	Surtain (17 fl oz)	69	75	65	36	23
5	Sharpen (3.71 fl oz)	88	89	83	71	63
6	Zidua SC (4.05 fl oz)	27	16	13	8	8
8	Resicore (1.25 qt)	58	72	58	31	14
9	Callisto (3 fl oz)	33	65	52	24	13
10	Surpass NXT (16 fl oz)	30	16	15	7	6
11	Stinger (2.5 fl oz)	21	38	33	15	8
12	Acuron (1.5 qt)	68	81	75	58	46
13	Dual II Magnum (13.45 fl oz)	29	24	19	11	5
14	atrazine 4L (0.75 pt)	32	18	18	8	4
<b>LSD (<math>\alpha=0.10</math>)</b>		<b>19</b>	<b>13</b>	<b>13</b>	<b>12</b>	<b>14</b>
<b>p value</b>		<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</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.

# Components of Corn Herbicide Premixes (Janesville, WI 2023)

Plot pictures taken on 5/25  
21 days after the PRE application

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

21 days after PRE (5/25)  
Untreated Check

0%



21 days after PRE (5/25)  
PRE: 14 fl oz Surtain

67%



21 days after PRE (5/25)  
PRE: 3.05 fl oz Sharpen

81%



21 days after PRE (5/25)  
PRE: 3.33 fl oz Zidua SC

20%



21 days after PRE (5/25)  
PRE: 17 fl oz Surtain

69%





21 days after PRE (5/25)  
PRE: 3.71 fl oz Sharpen

88%



21 days after PRE (5/25)  
PRE: 4.05 fl oz Zidua SC

27%



21 days after PRE (5/25)  
PRE: 1.25 qt Resicore XL

58%



21 days after PRE (5/25)

PRE: 3 fl oz Callisto

33%



21 days after PRE (5/25)  
PRE: 16 fl oz Surpass NXT

30%



21 days after PRE (5/25)  
PRE: 2.5 fl oz Stinger

21%



21 days after PRE (5/25)  
PRE: 1.5 qt Acuron

68%



21 days after PRE (5/25)  
PRE: 13.45 fl oz Dual II Magnum

29%





21 days after PRE (5/25)  
PRE: 0.75 pt atrazine 4L

32%



# Components of Corn Herbicide Premixes (Janesville, WI 2023)

Plot pictures taken on 5/31  
27 days after the PRE application

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

27 days after PRE (5/31)  
Untreated Check

0%



27 days after PRE (5/31)  
PRE: 14 fl oz Surtain

66%



27 days after PRE (5/31)  
PRE: 3.05 fl oz Sharpen

86%



27 days after PRE (5/31)  
PRE: 3.33 fl oz Zidua SC

21%



27 days after PRE (5/31)  
PRE: 17 fl oz Surtain

75%



27 days after PRE (5/31)  
PRE: 3.71 fl oz Sharpen

89%





27 days after PRE (5/31)  
PRE: 4.05 fl oz Zidua SC

16%



27 days after PRE (5/31)  
PRE: 1.25 qt Resicore XL

72%



27 days after PRE (5/31)  
PRE: 3 fl oz Callisto

65%



27 days after PRE (5/31)  
PRE: 16 fl oz Surpass NXT

16%



27 days after PRE (5/31)  
PRE: 2.5 fl oz Stinger

38%



27 days after PRE (5/31)  
PRE: 1.5 qt Acuron

81%



27 days after PRE (5/31)  
PRE: 13.45 fl oz Dual II Magnum

24%



27 days after PRE (5/31)  
PRE: 0.75 pt atrazine 4L

18%





# Components of Corn Herbicide Premixes (Janesville, WI 2023)

Plot pictures taken on 6/8  
35 days after the PRE application

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

35 days after PRE (6/8)  
Untreated Check

0%



35 days after PRE (6/8)  
PRE: 14 fl oz Surtain

56%



35 days after PRE (6/8)  
PRE: 3.05 fl oz Sharpen

79%



35 days after PRE (6/8)  
PRE: 3.33 fl oz Zidua SC

18%



35 days after PRE (6/8)  
PRE: 17 fl oz Surtain

65%



35 days after PRE (6/8)  
PRE: 3.71 fl oz Sharpen

83%



35 days after PRE (6/8)  
PRE: 4.05 fl oz Zidua SC

13%





35 days after PRE (6/8)  
PRE: 1.25 qt Resicore XL

58%



35 days after PRE (6/8)  
PRE: 3 fl oz Callisto

52%



35 days after PRE (6/8)  
PRE: 16 fl oz Surpass NXT

15%



35 days after PRE (6/8)  
PRE: 2.5 fl oz Stinger

33%



35 days after PRE (6/8)  
PRE: 1.5 qt Acuron

75%



35 days after PRE (6/8)  
PRE: 13.45 fl oz Dual II Magnum

19%



35 days after PRE (6/8)  
PRE: 0.75 pt atrazine 4L

18%



# Components of Corn Herbicide Premixes (Janesville, WI 2023)

Plot pictures taken on 6/15  
42 days after the PRE application

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



42 days after PRE (6/15)  
Untreated Check

0%



42 days after PRE (6/15)  
PRE: 14 fl oz Surtain

23%



42 days after PRE (6/15)  
PRE: 3.05 fl oz Sharpen

66%



42 days after PRE (6/15)  
PRE: 3.33 fl oz Zidua SC

12%



42 days after PRE (6/15)  
PRE: 17 fl oz Surtain

36%



42 days after PRE (6/15)  
PRE: 3.71 fl oz Sharpen

71%



42 days after PRE (6/15)  
PRE: 4.05 fl oz Zidua SC

8%



42 days after PRE (6/15)  
PRE: 1.25 qt Resicore XL

31%





42 days after PRE (6/15)  
PRE: 3 fl oz Callisto

24%



42 days after PRE (6/15)  
PRE: 16 fl oz Surpass NXT

7%



42 days after PRE (6/15)  
PRE: 2.5 fl oz Stinger

15%



42 days after PRE (6/15)  
PRE: 1.5 qt Acuron

58%



42 days after PRE (6/15)  
PRE: 13.45 fl oz Dual II Magnum

11%



42 days after PRE (6/15)  
PRE: 0.75 pt atrazine 4L

8%

