

Authority Brand Herbicide Programs in Enlist Soybeans (Brooklyn, WI 2020)

Trial Information

Trial Sponsor: FMC

Objective: Evaluate the efficacy and crop safety of Authority brand herbicides and similar competitor PRE herbicides in Enlist soybeans

Crop: Enlist soybean

Variety: P22T86E

Weed species (pressure): Glyphosate-resistant waterhemp (very high)

Herbicide Application(s): PRE – 5/22

POST – 6/23 (V3/V4 soybean)

For the full report see trial #20-BRO-SB06 in the [2020 Wisconsin Weed Science Research Report](#)



Cropping Systems Weed Science
UNIVERSITY OF WISCONSIN-MADISON



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Herbicide Treatment	APP Timing	Gly-R Waterhemp Control %			Yield bu/acre
		6/11	7/8	10/9	
8 fl oz Authority Supreme <i>fb</i>	PRE				
32 fl oz Liberty + 3 lb AMS	POST	98	94	84	40
8 fl oz Authority Edge <i>fb</i>	PRE				
32 fl oz Liberty + 3 lb AMS	POST	99	98	88	42
10 fl oz Authority Edge <i>fb</i>	PRE				
32 fl oz Liberty + 3 lb AMS	POST	99	97	91	39
8 fl oz Authority Edge <i>fb</i>	PRE				
32 fl oz Liberty + 2.5 fl oz Anthem Maxx + 3 lb AMS	POST	98	98	89	40
6 fl oz Zidua PRO <i>fb</i>	PRE				
32 fl oz Liberty + 3 lb AMS	POST	98	96	83	42
1.8 pt Boundary <i>fb</i>	PRE				
32 fl oz Liberty + 3 lb AMS	POST	91	84	70	45
6.4 oz Authority First DF <i>fb</i>	PRE				
32 fl oz Liberty + 3 lb AMS	POST	86	83	71	40
Untreated Check	-	0	0	0	27
		LSD (0.10)	3	4	5
		p-value	<0.01	<0.01	<0.01
					<0.01

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Plot pictures taken on 6/12

21 days after the PRE application

The number in the upper right-hand corner is the average % gly-R waterhemp control of 4 replications

21 days after PRE (6/12)

0%

Untreated Check



**21 days after PRE (6/12)
PRE: 8 fl oz Authority Supreme**

98%



**21 days after PRE (6/12)
PRE: 8 fl oz Authority Edge**

99%



**21 days after PRE (6/12)
PRE: 10 fl oz Authority Edge**

99%



21 days after PRE (6/12)

PRE: 6 fl oz Zidua PRO

98%



21 days after PRE (6/12)

PRE: 1.8 pt Boundary

91%



**21 days after PRE (6/12)
PRE: 6.4 oz Authority First DF**

86%



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Plot pictures taken on 6/23

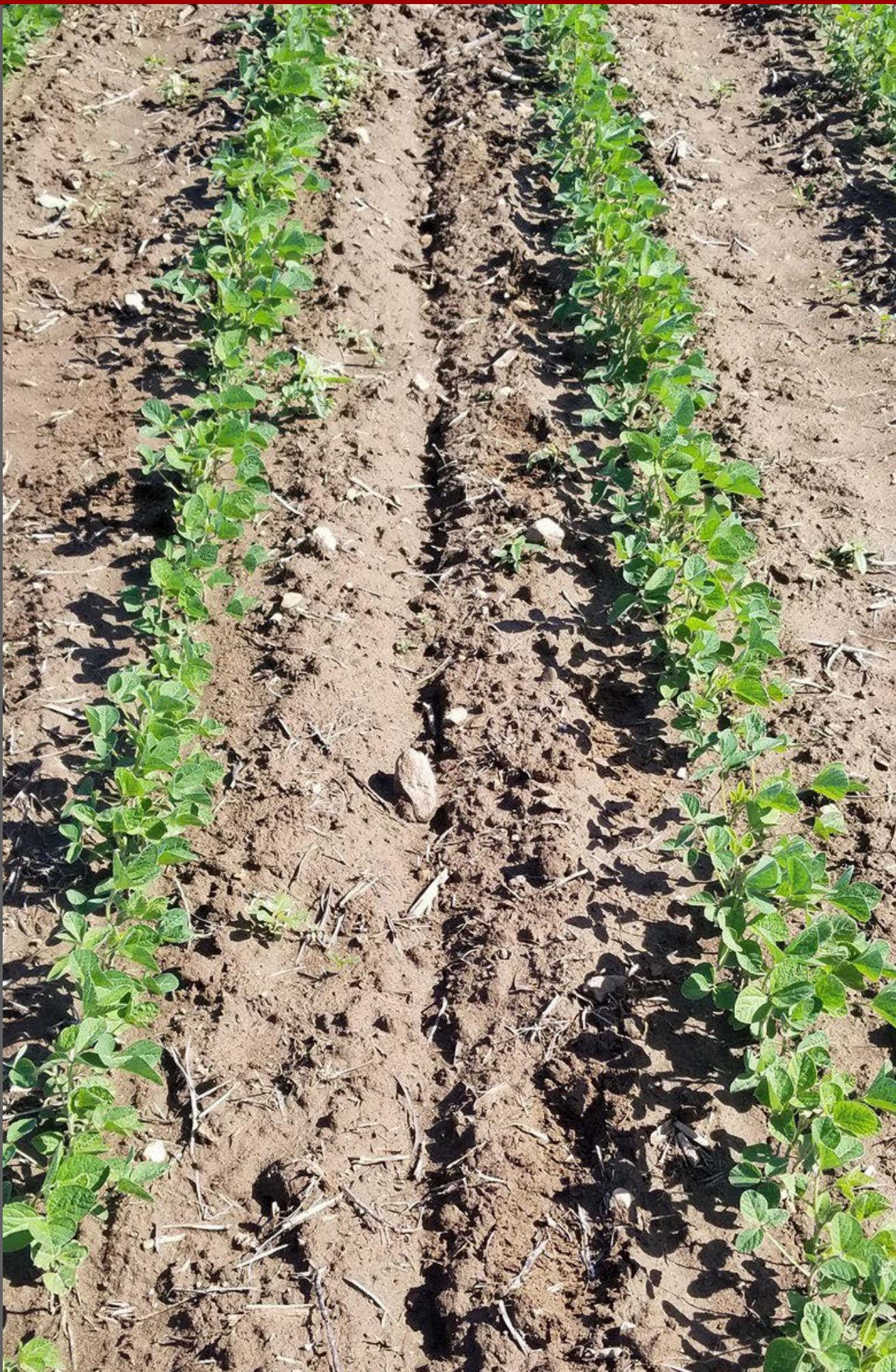
32 days after the PRE application
The day of the POST application

32 days after PRE (6/23)

Untreated Check



32 days after PRE (6/23)
PRE: 8 fl oz Authority Supreme



32 days after PRE (6/23)
PRE: 8 fl oz Authority Edge



32 days after PRE (6/23)
PRE: 10 fl oz Authority Edge



32 days after PRE (6/23)

PRE: 6 fl oz Zidua PRO



32 days after PRE (6/23)

PRE: 1.8 pt Boundary



32 days after PRE (6/23)
PRE: 6.4 oz Authority First DF



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Plot pictures taken on 7/8
15 days after the POST application

The number in the upper right-hand corner is the average % gly-R waterhemp control of 4 replications

47 days after PRE (7/8)

Untreated Check

0%



15 days after POST (7/8)

94%

PRE: 8 fl oz Authority Supreme *fb* POST: 32 fl oz Liberty



15 days after POST (7/8)

98%

PRE: 8 fl oz Authority Edge *fb* POST: 32 fl oz Liberty



15 days after POST (7/8)

PRE: 10 fl oz Authority Edge *fb* POST: 32 fl oz Liberty

97%



15 days after POST (7/8)

PRE: 8 fl oz Authority Edge *fb* POST: 32 fl oz Liberty + 2.5 fl oz Anthem Maxx 98%



15 days after POST (7/8)

PRE: 6 fl oz Zidua PRO *fb* POST: 32 fl oz Liberty

96%



15 days after POST (7/8)

PRE: 1.8 pt Boundary *fb* POST: 32 fl oz Liberty

84%



15 days after POST (7/8)

83%

PRE: 6.4 oz Authority First DF *fb* POST: 32 fl oz Liberty



Authority Brand Herbicide Programs in Enlist Soybeans (Brooklyn, WI 2020)

Plot pictures taken on 7/22
29 days after the POST application

61 days after PRE (7/22)

Untreated Check



29 days after POST (7/22)

PRE: 8 fl oz Authority Supreme *fb* POST: 32 fl oz Liberty



29 days after POST (7/22)

PRE: 8 fl oz Authority Edge *fb* POST: 32 fl oz Liberty



29 days after POST (7/22)

PRE: 10 fl oz Authority Edge *fb* POST: 32 fl oz Liberty



29 days after POST (7/22)

PRE: 8 fl oz Authority Edge *fb* POST: 32 fl oz Liberty + 2.5 fl oz Anthem Maxx



29 days after POST (7/22)

PRE: 6 fl oz Zidua PRO *fb* POST: 32 fl oz Liberty



29 days after POST (7/22)

PRE: 1.8 pt Boundary *fb* POST: 32 fl oz Liberty



29 days after POST (7/22)

PRE: 6.4 oz Authority First DF *fb* POST: 32 fl oz Liberty



Authority Brand Herbicide Programs in Enlist Soybeans (Brooklyn, WI 2020)

Plot pictures taken on 10/9
Day of soybean harvest

The number in the upper right-hand corner is the average % gly-R waterhemp control of 4 replications

Soybean Harvest (10/9)

0%

Untreated Check



Soybean Harvest (10/9)

84%

PRE: 8 fl oz Authority Supreme *fb* POST: 32 fl oz Liberty



Soybean Harvest (10/9)

88%

PRE: 8 fl oz Authority Edge *fb* POST: 32 fl oz Liberty



Soybean Harvest (10/9)

PRE: 10 fl oz Authority Edge *fb* POST: 32 fl oz Liberty

91%



Soybean Harvest (10/9)
PRE: 8 fl oz Authority Edge *fb* POST: 32 fl oz Liberty + 2.5 fl oz Anthem Maxx

89%



Soybean Harvest (10/9)

PRE: 6 fl oz Zidua PRO *fb* POST: 32 fl oz Liberty

83%



Soybean Harvest (10/9)

PRE: 1.8 pt Boundary *fb* POST: 32 fl oz Liberty

70%



Soybean Harvest (10/9)

71%

PRE: 6.4 oz Authority First DF *fb* POST: 32 fl oz Liberty

