

# 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)

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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

The logo for FMC, consisting of the letters 'FMC' in a bold, red, sans-serif font. The 'F' is stylized with a horizontal bar that extends to the left.

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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> 32 fl oz Liberty + 3 lb AMS	PRE POST	98	94	84	40
8 fl oz Authority Edge <i>fb</i> 32 fl oz Liberty + 3 lb AMS	PRE POST	99	98	88	42
10 fl oz Authority Edge <i>fb</i> 32 fl oz Liberty + 3 lb AMS	PRE POST	99	97	91	39
8 fl oz Authority Edge <i>fb</i> 32 fl oz Liberty + 2.5 fl oz Anthem Maxx + 3 lb AMS	PRE POST	98	98	89	40
6 fl oz Zidua PRO <i>fb</i> 32 fl oz Liberty + 3 lb AMS	PRE POST	98	96	83	42
1.8 pt Boundary <i>fb</i> 32 fl oz Liberty + 3 lb AMS	PRE POST	91	84	70	45
6.4 oz Authority First DF <i>fb</i> 32 fl oz Liberty + 3 lb AMS	PRE POST	86	83	71	40
Untreated Check	-	0	0	0	27
	<b>LSD (0.10)</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>4</b>
	<b>p-value</b>	<b>&lt;0.01</b>	<b>&lt;0.01</b>	<b>&lt;0.01</b>	<b>&lt;0.01</b>

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

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

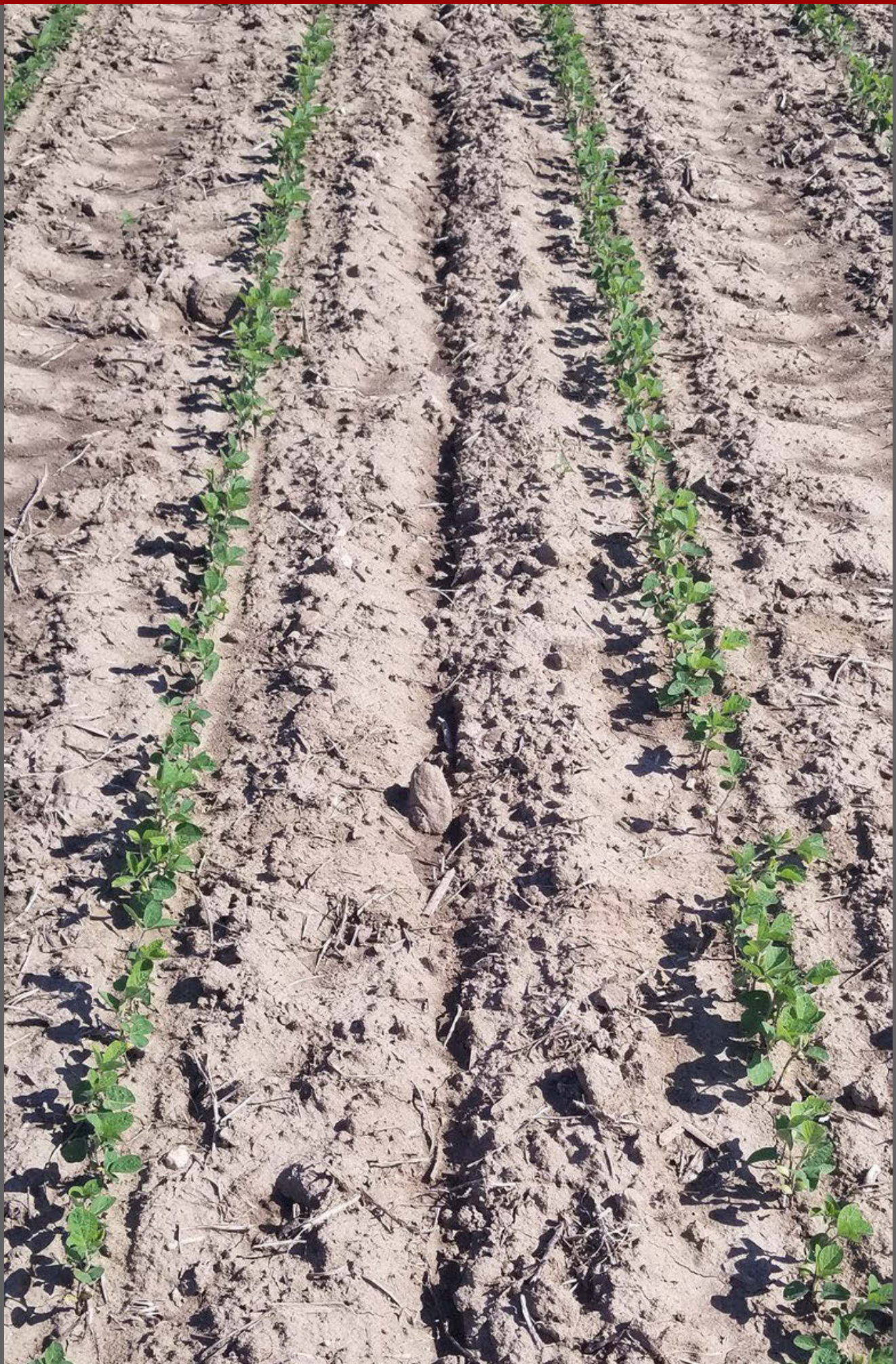






21 days after PRE (6/12)  
PRE: 8 fl oz Authority Supreme

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%









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

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





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

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







15 days after POST (7/8)

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

94%





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)

97%

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





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)

96%

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





15 days after POST (7/8)

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

84%





15 days after POST (7/8)

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

83%





# 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)

84%

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





Soybean Harvest (10/9)

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

88%





Soybean Harvest (10/9)

91%

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





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%









