

Utility of Layering Residual Herbicides in Soybean Brooklyn, WI 2020

Trial Information

Trial Sponsor: Wisconsin Soybean Marketing Board

Objective: Determine the utility of layering residual herbicides for waterhemp control in soybean

Crop: Enlist soybean

Variety: S20-J5E

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

Herbicide Application(s): PRE – 5/22

POST – 6/17 (V2 soybean)

For the full report see trial #20-BRO-SB12 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
		7/1	7/14	9/24	
12 oz Authority MTZ	PRE	57	43	43	36
12 oz Authority MTZ <i>fb</i> 32 fl oz Liberty	PRE POST	97	78	86	49
12 oz Authority MTZ <i>fb</i> 32 fl oz Liberty + 4 fl oz Pursuit	PRE POST	99	85	89	49
12 oz Authority MTZ <i>fb</i> 32 fl oz Liberty + 1 pt Flexstar	PRE POST	100	98	96	44
12 oz Authority MTZ <i>fb</i> 32 fl oz Liberty + 48 fl oz Warrant	PRE POST	99	97	95	51
12 oz Authority MTZ <i>fb</i> 32 fl oz Liberty + 1.25 pt Dual II Magnum	PRE POST	99	89	88	51
12 oz Authority MTZ <i>fb</i> 32 fl oz Liberty + 10 fl oz Outlook	PRE POST	99	85	89	50
12 oz Authority MTZ <i>fb</i> 32 fl oz Liberty + 1.5 oz Zidua	PRE POST	100	93	94	52
12 oz Authority MTZ <i>fb</i> 32 fl oz Liberty + 2 pt Prefix	PRE POST	99	97	93	48
12 oz Authority MTZ <i>fb</i> 32 fl oz Liberty + 50 fl oz Warrant Ultra	PRE POST	99	96	93	49
LSD (0.10)		2	6	5	6
p-value		0.08	<0.01	0.04	0.01

*All POST treatments included AMS at 2 lb/a

Day of POST application (6/17)



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Plot pictures taken on 7/1
40 days after the PRE application
14 days after the POST application

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

40 days after PRE (7/1)
PRE: 12 oz Authority MTZ

57%



14 days after POST (7/1)
PRE: 12 oz Authority MTZ *fb*
POST: 32 fl oz Liberty

97%



14 days after POST (7/1)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 4 fl oz Pursuit

99%



14 days after POST (7/1)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 1 pt Flexstar

100%



14 days after POST (7/1)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 48 fl oz Warrant

99%



14 days after POST (7/1)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 1.25 pt Dual II Magnum

99%



14 days after POST (7/1)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 10 fl oz Outlook

99%



14 days after POST (7/1)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 1.5 oz Zidua

100%



14 days after POST (7/1)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 2 pt Prefix

99%



14 days after POST (7/1)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 50 fl oz Warrant Ultra

99%



Utility of Layering Residual Herbicides in Soybean Brooklyn, WI 2020

Plot pictures taken on 7/14

53 days after the PRE application

27 days after the POST application

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

53 days after PRE (7/14)
PRE: 12 oz Authority MTZ

43%



27 days after POST (7/14)
PRE: 12 oz Authority MTZ *fb*
POST: 32 fl oz Liberty

78%



27 days after POST (7/14)
PRE: 12 oz Authority MTZ *fb*
POST: 32 fl oz Liberty + 4 fl oz Pursuit

85%



27 days after POST (7/14)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 1 pt Flexstar

98%



27 days after POST (7/14)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 48 fl oz Warrant

97%



27 days after POST (7/14)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 1.25 pt Dual II Magnum

89%



27 days after POST (7/14)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 10 fl oz Outlook

85%



27 days after POST (7/14)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 1.5 oz Zidua

93%



27 days after POST (7/14)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 2 pt Prefix

97%



27 days after POST (7/14)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 50 fl oz Warrant Ultra

96%



Utility of Layering Residual Herbicides in Soybean 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)
PRE: 12 oz Authority MTZ *fb*
POST: 32 fl oz Liberty

86%



Soybean Harvest (10/9)

PRE: 12 oz Authority MTZ *fb*

89%

POST: 32 fl oz Liberty + 4 fl oz Pursuit



Soybean Harvest (10/9)

PRE: 12 oz Authority MTZ *fb*

96%

POST: 32 fl oz Liberty + 1 pt Flexstar



Soybean Harvest (10/9)

PRE: 12 oz Authority MTZ *fb*

95%

POST: 32 fl oz Liberty + 48 fl oz Warrant



Soybean Harvest (10/9)

PRE: 12 oz Authority MTZ *fb*

88%

POST: 32 fl oz Liberty + 1.25 pt Dual II Magnum



Soybean Harvest (10/9)

PRE: 12 oz Authority MTZ *fb*

89%

POST: 32 fl oz Liberty + 10 fl oz Outlook



Soybean Harvest (10/9)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 1.5 oz Zidua

94%



Soybean Harvest (10/9)

PRE: 12 oz Authority MTZ *fb*

POST: 32 fl oz Liberty + 2 pt Prefix

93%



Soybean Harvest (10/9)

PRE: 12 oz Authority MTZ *fb*

93%

POST: 32 fl oz Liberty + 50 fl oz Warrant Ultra

