

XtendFlex Soybean Herbicide Programs

Brooklyn, WI 2021

Trial Information

Trial Sponsor(s): Bayer

Objective: Evaluate multiple herbicide programs to provide recommendations for XtendFlex soybean weed management

Crop: XtendFlex Soybean

Variety: AG20XF1

Weed species (pressure): glyphosate-R waterhemp (moderate-high)
velvetleaf (moderate)
common lambsquarters (low-moderate)

Herbicide Application(s): PRE – 5/26
POST – 6/22 (V3 soybean)

For the full report see trial #21-BRO-SB04 in the [2021 Wisconsin Weed Science Research Report](#)



Cropping Systems Weed Science
UNIVERSITY OF WISCONSIN-MADISON



XtendFlex Soybean Herbicide Programs (Brooklyn, WI 2021)

Trt #	Herbicide (rate acre ⁻¹)	Injury ^c (%)	Waterhemp (%)			Overall ^d (%)			Yield bu acre ⁻¹	
			7/8	6/22	7/8	9/21	6/22	7/8		
1	Untreated Check	0		0	0	0	0	0	33 c	
Two-Pass – PRE (5/26) <i>fb</i> POST (6/22)										
2	XtendiMax (22 oz) + MON 301668 (30 oz) + Mauler (8 oz)* <i>fb</i> XtendiMax (22 oz) + Roundup PM 3 (30 oz) + MON 301668 (30 oz)**	8.8		95	99	99	94	100	99	61 b
3	XtendiMax (22 oz) + MON 301668 (30 oz) + Mauler (8 oz)* <i>fb</i> Liberty (32 oz) + Roundup PM 3 (30 oz) + MON 301668 (30 oz) + AMS 2.5% v/v	16.3		93	100	98	92	99	98	60 b
4	XtendiMax (22 oz) + MON 301668 (30 oz) + Mauler (8 oz)* <i>fb</i> Liberty (32 oz) + Roundup PM 3 (30 oz) + AMS 2.5% v/v	6.3		93	99	100	92	100	100	63 ab
5	XtendiMax (22 oz) + MON 301668 (30 oz) + Mauler (8 oz)* <i>fb</i> Liberty (32 oz) + Select Max (12 oz) + AMS 2.5% v/v	5.0		92	99	99	91	99	99	62 b
6	XtendiMax (22 oz) + Fierce WDG (3 oz) <i>fb</i> Liberty (32 oz) + Roundup PM 3 (30 oz) + MON 301668 (30 oz) + AMS 2.5% v/v	15.0		95	100	100	94	100	100	61 b
7	XtendiMax (22 oz) + Fierce WDG (3 oz) <i>fb</i> XtendiMax (22 oz) + Roundup PM 3 (30 oz) + MON 301668 (30 oz)**	13.8		96	100	100	96	100	100	61 b
8	MON 301668 (30 oz) + Mauler (8 oz) <i>fb</i> XtendiMax (22 oz) + Roundup PM 3 (30 oz) + MON 301668 (30 oz)**	11.3		92	99	100	87	100	100	64 ab
9	MON 301668 (30 oz) + Mauler (8 oz) <i>fb</i> Liberty (32 oz) + Roundup PM 3 (30 oz) + MON 301668 (30 oz) + AMS 2.5% v/v	15.0		90	99	100	90	98	100	60 b
10	MON 301668 (30 oz) + Mauler (8 oz) <i>fb</i> Liberty (32 oz) + Roundup PM 3 (30 oz) + AMS 2.5% v/v	5.0		89	99	100	86	100	100	62 ab
11	MON 301668 (30 oz) + Mauler (8 oz) <i>fb</i> Liberty (32 oz) + Select Max (12 oz) + AMS 2.5% v/v	5.0		89	99	100	87	98	99	63 ab
12	MON 301668 (30 oz) + Mauler (8 oz) <i>fb</i> Liberty (32 oz) + XtendiMax (22 oz) + MON 301668 (30 oz)**	10.0		90	99	100	85	99	99	63 ab
13	MON 301668 (30 oz) + Mauler (8 oz) <i>fb</i> Liberty (32 oz)+XtendiMax (22 oz)+Roundup PM 3 (30 oz)+MON 301668 (30 oz)**	8.8		87	98	100	85	99	100	65 ab
14	MON 301668 (30 oz) + Mauler (8 oz) <i>fb</i> Warrant Ultra (48 oz) + Liberty (32 oz) + AMS 2.5% v/v	20.0		91	100	100	86	98	98	61 b
15	XtendiMax (22 oz) + Warrant Ultra (48 oz)* <i>fb</i> XtendiMax (22 oz) + Roundup PM 3 (30 oz) + MON 301668 (30 oz)**	7.5		92	100	100	91	100	100	62 ab
16	XtendiMax (22 oz) + Warrant Ultra (48 oz)* <i>fb</i> Liberty (32 oz) + Roundup PM 3 (30 oz) + MON 301668 (30 oz) + AMS 2.5% v/v	11.3		88	100	100	91	100	100	68 a
		LSD ($\alpha=0.10$)	3.0	3	ns	ns	4	ns	ns	6
		p value	<0.001	0.004	0.883	0.326	<0.001	0.510	0.567	<0.001

^cCrop injury symptoms included leaf necrosis (burn) and leaf crinkling.

^dOverall weed control included all species in the trial area: waterhemp, velvetleaf, common lambsquarters, and venice mallow..

XtendFlex Soybean Herbicide Programs

Brooklyn, WI 2021

Plot pictures taken on 6/22

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

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

27 days after PRE (6/22)

Untreated Check

0%



27 days after PRE (6/22)

93%

PRE: 22 fl oz XtendiMax + 30 fl oz MON 301668 + 8 fl oz Mauler



27 days after PRE (6/22)

PRE: 22 fl oz XtendiMax + 3 oz Fierce WDG

96%



27 days after PRE (6/22)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler

90%



27 days after PRE (6/22)

PRE: 22 fl oz XtendiMax + 48 fl oz Warrant Ultra

90%



XtendFlex Soybean Herbicide Programs

Brooklyn, WI 2021

Plot pictures taken on 7/8

43 days after the PRE application
16 days after the POST application

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

43 days after PRE (7/8)
Untreated Check

0%



16 days after POST (7/8)

PRE: 22 fl oz XtendiMax + 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

99%

POST: 22 fl oz XtendiMax+ 30 fl oz Roundup PM3 + 30 fl oz MON 301668



16 days after POST (7/8)

PRE: 22 fl oz XtendiMax + 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

100%

POST: 32 fl oz Liberty + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



16 days after POST (7/8)

PRE: 22 fl oz XtendiMax + 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

99%

POST: 32 fl oz Liberty + 30 fl oz Roundup PM3



16 days after POST (7/8)

PRE: 22 fl oz XtendiMax + 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

99%

POST: 32 fl oz Liberty + 12 fl oz Select Max



16 days after POST (7/8)

PRE: 22 fl oz XtendiMax + 3 oz Fierce WDG *fb*

100%

POST: 32 fl oz Liberty + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



16 days after POST (7/8)

PRE: 22 fl oz XtendiMax + 3 oz Fierce WDG *fb*

100%

POST: 22 fl oz XtendiMax + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



16 days after POST (7/8)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

99%

POST: 22 fl oz XtendiMax + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



16 days after POST (7/8)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

99%

POST: 32 fl oz Liberty + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



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99%



16 days after POST (7/8)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

POST: 32 fl oz Liberty + 12 fl oz Select Max

99%



16 days after POST (7/8)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

99%

POST: 32 fl oz Liberty + 22 fl oz XtendiMax + 30 fl oz MON 301668



16 days after POST (7/8)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

98%

POST: 32 oz Liberty + 22 oz Xmax + 30 oz Roundup PM3 + 30 oz MON 301668



16 days after POST (7/8)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

POST: 48 fl oz Warrant Ultra + 32 fl oz Liberty

100%



16 days after POST (7/8)

PRE: 22 fl oz XtendiMax + 48 fl oz Warrant Ultra *fb*

100%

POST: 22 fl oz XtendiMax + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



16 days after POST (7/8)

PRE: 22 fl oz XtendiMax + 48 fl oz Warrant Ultra fb

100%

POST: 32 fl oz Liberty + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



XtendFlex Soybean Herbicide Programs

Brooklyn, WI 2021

Plot pictures taken on 7/20

55 days after the PRE application
28 days after the POST application

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

55 days after PRE (7/20)
Untreated Check

0%



28 days after POST (7/20)

PRE: 22 fl oz XtendiMax + 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

99%

POST: 22 fl oz XtendiMax+ 30 fl oz Roundup PM3 + 30 fl oz MON 301668



28 days after POST (7/20)

PRE: 22 fl oz XtendiMax + 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

99%

POST: 32 fl oz Liberty + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



28 days after POST (7/20)

PRE: 22 fl oz XtendiMax + 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

97%

POST: 32 fl oz Liberty + 30 fl oz Roundup PM3



28 days after POST (7/20)

PRE: 22 fl oz XtendiMax + 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

99%

POST: 32 fl oz Liberty + 12 fl oz Select Max



28 days after POST (7/20)

PRE: 22 fl oz XtendiMax + 3 oz Fierce WDG *fb*

POST: 32 fl oz Liberty + 30 fl oz Roundup PM3 + 30 fl oz MON 301668

100%



28 days after POST (7/20)

PRE: 22 fl oz XtendiMax + 3 oz Fierce WDG *fb*

POST: 22 fl oz XtendiMax + 30 fl oz Roundup PM3 + 30 fl oz MON 301668

100%



28 days after POST (7/20)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

100%

POST: 22 fl oz XtendiMax + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



28 days after POST (7/20)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

99%

POST: 32 fl oz Liberty + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



28 days after POST (7/20)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

POST: 32 fl oz Liberty + 30 fl oz Roundup PM3

95%



28 days after POST (7/20)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

POST: 32 fl oz Liberty + 12 fl oz Select Max

99%



28 days after POST (7/20)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

99%

POST: 32 fl oz Liberty + 22 fl oz XtendiMax + 30 fl oz MON 301668



28 days after POST (7/20)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

98%

POST: 32 oz Liberty + 22 oz Xmax + 30 oz Roundup PM3 + 30 oz MON 301668



28 days after POST (7/20)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

POST: 48 fl oz Warrant Ultra + 32 fl oz Liberty

100%



28 days after POST (7/20)

PRE: 22 fl oz XtendiMax + 48 fl oz Warrant Ultra *fb*

99%

POST: 22 fl oz XtendiMax + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



28 days after POST (7/20)

PRE: 22 fl oz XtendiMax + 48 fl oz Warrant Ultra *fb*

100%

POST: 32 fl oz Liberty + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



XtendFlex Soybean Herbicide Programs

Brooklyn, WI 2021

Plot pictures taken on 9/29
Day of soybean harvest

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

Soybean harvest (9/29)

Untreated Check

0%



Soybean harvest (9/29)

PRE: 22 fl oz XtendiMax + 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

99%

POST: 22 fl oz XtendiMax+ 30 fl oz Roundup PM3 + 30 fl oz MON 301668



Soybean harvest (9/29)

PRE: 22 fl oz XtendiMax + 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

98%

POST: 32 fl oz Liberty + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



Soybean harvest (9/29)

PRE: 22 fl oz XtendiMax + 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

100%

POST: 32 fl oz Liberty + 30 fl oz Roundup PM3



Soybean harvest (9/29)

PRE: 22 fl oz XtendiMax + 30 fl oz MON 301668 + 8 fl oz Mauler fb

99%

POST: 32 fl oz Liberty + 12 fl oz Select Max



Soybean harvest (9/29)

PRE: 22 fl oz XtendiMax + 3 oz Fierce WDG *fb*

100%

POST: 22 fl oz XtendiMax + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



Soybean harvest (9/29)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

100%

POST: 22 fl oz XtendiMax + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



Soybean harvest (9/29)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

100%

POST: 32 fl oz Liberty + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



Soybean harvest (9/29)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

POST: 32 fl oz Liberty + 30 fl oz Roundup PM3

100%



Soybean harvest (9/29)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

POST: 32 fl oz Liberty + 12 fl oz Select Max

100%



Soybean harvest (9/29)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

100%

POST: 32 fl oz Liberty + 22 fl oz XtendiMax + 30 fl oz MON 301668



Soybean harvest (9/29)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

100%

POST: 32 oz Liberty + 22 oz Xmax + 30 oz Roundup PM3 + 30 oz MON 301668



Soybean harvest (9/29)

PRE: 30 fl oz MON 301668 + 8 fl oz Mauler *fb*

POST: 48 fl oz Warrant Ultra + 32 fl oz Liberty

100%



Soybean harvest (9/29)

PRE: 22 fl oz XtendiMax + 48 fl oz Warrant Ultra *fb*

100%

POST: 22 fl oz XtendiMax + 30 fl oz Roundup PM3 + 30 fl oz MON 301668



3

Soybean harvest (9/29)

PRE: 22 fl oz XtendiMax + 48 fl oz Warrant Ultra *fb*

100%

POST: 32 fl oz Liberty + 30 fl oz Roundup PM3 + 30 fl oz MON 301668

