

Syngenta Soybean Herbicides Following Rye Brooklyn, WI 2023

Trial Information

Trial Sponsor(s): Syngenta

Objective: Evaluate Syngenta soybean herbicide programs following a winter rye cover crop

Crop: Soybean

Variety: NK20-B6E

Weed species (pressure): glyphosate-R waterhemp (moderate)
woolly cupgrass (moderate)

Herbicide Application(s): Pre-Plant – 4/28 (3-6" rye)
PRE – 5/17 (30" rye)
EPOST – 5/25 (40" rye)
POST – 6/22 (V4 soybean)

For the full report see trial #23-BRO-SB09 in the [2023 Wisconsin Weed Science Research Report](#)



Cropping Systems Weed Science
UNIVERSITY OF WISCONSIN-MADISON

The Syngenta logo, consisting of the word 'syngenta' in a blue, lowercase, sans-serif font, with a green leaf icon above the 'y'.

Syngenta Soy Herbicides Following Rye (Brooklyn, WI 2023)

Trt #	Herbicide (rate acre ⁻¹)	Harvest Stand plants/a	Rye	Waterhemp			Woolly Cupgrass			Yield ^b bu acre ⁻¹
			5/31	6/22	7/5	10/5	6/22	7/5	10/5	
1	Early Termination – Check ^c	79,247	100	0	0	0	0	0	0	34 ab
9	Plant Green – Late Termination – Check ^c	66,765	84	95	94	0	90	74	3	22 b
Two-Pass – Pre-Plant/At-Plant fb EPOST/POST										
Early Termination: Pre-Plant (4/28) fb POST (6/22)										
2	Tendovo (2.1 qt) + Roundup PM3 (30 oz) + 2,4-D LV4 (1 pt) + AMS ^d fb Enlist One (2 pt) + Roundup PM3 (25 oz) + Dual II Magnum (1.25 pt) + AMS ^d	84,473	100	88	98	93	90	99	92	49 a
Plant Green @Plant Termination: At-Plant (5/17) fb POST (6/22)										
3	Tendovo (2.1 qt) + Roundup PM3 (30 oz) + AMS ^d fb Enlist One (2 pt) + Roundup PM3 (25 oz) + Dual II Magnum (1.25 pt) + AMS ^d	92,746	94	100	100	96	97	100	93	44 a
Plant Green @Plant Termination: At-Plant (5/17) fb POST (6/22)										
5	Prefix (2 pt) + Metricor (8 oz) + Enlist One (1.5 pt) + Roundup PM3 (30 oz) + AMS ^d fb Enlist One (2 pt) + Roundup PM3 (25 oz) + Dual II Magnum (1.25 pt) + AMS ^d	91,439	94	95	100	99	91	100	95	49 a
Plant Green @Plant Termination: At-Plant (5/17) fb POST (6/22)										
6	Zidua PRO (6 oz) + Enlist One (1.5 pt) + Roundup PM3 (30 oz) + AMS ^d fb Enlist One (2 pt) + Roundup PM3 (25 oz) + Dual II Magnum (1.25 pt) +	80,554	100	100	100	97	98	100	84	48 a
Plant Green – Late Termination: Pre-Plant (4/28) fb EPOST (5/25)										
4	Tendovo (2.1 qt) + 2,4-D LV4 (1 pt) fb Enlist One (2 pt) + Roundup PM3 (30 oz) + Dual II Magnum (1.25 pt) + AMS ^d	87,085	88	92	90	48	95	89	70	47 a
Plant Green – Late Termination: At-Plant (5/17) fb EPOST (5/25)										
7	Tendovo (2.1 qt) + NIS (0.25% v/v) fb Enlist One (2 pt) + Roundup PM3 (30 oz) + Dual II Magnum (1.25 pt) + AMS ^d	83,166	75	96	93	62	97	89	74	45 a
Plant Green – Late Termination: At-Plant (5/17) fb EPOST (5/25)										
8	Prefix (2 pt) + Metricor (8 oz) + Enlist One (1.5 pt) fb Enlist One (2 pt) + Roundup PM3 (30 oz) + Dual II Magnum (1.25 pt) + AMS ^d	88,246	68	99	100	77	98	89	71	32 ab
One-Pass – EPOST (5/25)										
Plant Green – Late Termination										
10	Prefix (2 pt) + Pursuit (3 oz) + Enlist One (2 pt) + Roundup PM3 (30 oz) + AMS ^d	93,181	86	97	95	98	99	95	65	42 a
Plant Green – Late Termination										
11	Enlist One (2 pt) + Roundup PM3 (30 oz) + Dual II Magnum (1.25 pt) + AMS ^d	64,443	84	99	98	94	96	84	41	33 ab
LSD ($\alpha=0.10$)		14,179	5	ns	ns	16	5	7	14	10
p value		0.027	<.001	0.459	0.119	<.001	0.059	0.001	<.001	<.001

^aVisual control from 70-100% is illustrated on a color scale with green representing greater weed control values.

^bYield values with the same letter are not significantly different.

^cRoundup PM3 (30 oz) + 2,4-D LV4 (1 pt) + AMS (2.5%) was applied to the early check on 4/28; Enlist One (2 pt) + Roundup PM3 (30 oz) + AMS (2.5%) was applied to late check on 5/25.

^dLiquid AMS (AMSOL) applied at 2.5% v/v

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Plot pictures taken on 5/17
19 days after the pre-plant application
The day of soybean planting

The day of soybean planting (5/17)

Untreated



19 days after Pre-Plant (5/17)

Pre-Plant: 30 oz Roundup PM3 + 1 pt 2,4-D + AMS - (Check)



19 days after Pre-Plant (5/17)

Pre-Plant: 2.1 qt Tendovo + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS



Syngenta Soybean Herbicides Following Rye Brooklyn, WI 2023

Plot pictures taken on 6/22

55 days after the Pre-Plant application

36 days after the PRE application

28 days after the EPOST application

The day of the POST application

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

55 days after Pre-Plant (6/22)

Pre-Plant: 30 oz Roundup PM3 + 1 pt 2,4-D + AMS - (Early Check)

0%



28 days after EPOST (6/22)

EPOST: 2 pt Enlist One + 30 oz Roundup PM3 + AMS - (Late Check)

95%



55 days after Pre-Plant (6/22)

Pre-Plant: 2.1 qt Tendovo + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS

88%



36 days after PRE (6/22)

PRE: 2.1 qt Tendovo + 30 oz Roundup PM3 + AMS

100%



36 days after PRE (6/22)

PRE: 2 pt Prefix + 8 oz Metricor + 1.5 pt Enlist One + 30 oz RU PM3 + AMS

95%



36 days after PRE (6/22)

PRE: 6 oz Zidua PRO + 1.5 pt Enlist One + 30 oz Roundup PM3 + AMS

100%



28 days after EPOST (6/22)

Pre-Plant: 2.1 qt Tendovo + 1 pt 2,4-D One *fb*

92%

EPOST: 2 pt Enlist One + 30 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



28 days after EPOST (6/22)

PRE: 2.1 qt Tendovo + NIS *fb*

96%

EPOST: 2 pt Enlist One + 30 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



28 days after EPOST (6/22)

PRE: 2 pt Prefix + 8 oz Metricor + 1.5 pt Enlist One *fb*

99%

EPOST: 2 pt Enlist One + 30 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



28 days after EPOST (6/22)

EPOST: 2 pt Prefix + 3 oz Pursuit + 2 pt Enlist One + 30 oz RU PM3 + AMS

97%



28 days after EPOST (6/22)

EPOST: 2 pt Enlist One + 30 oz RU PM3 + 1.25 pt Dual II Magnum + AMS

99%



Syngenta Soybean Herbicides Following Rye Brooklyn, WI 2023

Plot pictures taken on 6/22

68 days after the Pre-Plant application

49 days after the PRE application

41 days after the EPOST application

13 days after the POST application

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

68 days after Pre-Plant (7/5)

Pre-Plant: 30 oz Roundup PM3 + 1 pt 2,4-D + AMS - (Early Check)

0%



41 days after EPOST (7/5)

EPOST: 2 pt Enlist One + 30 oz Roundup PM3 + AMS - (Late Check)

94%



13 days after POST (7/5)

Pre-Plant: 2.1 qt Tendovo + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS fb

98%

POST: 2 pt Enlist One + 25 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



13 days after POST (7/5)

PRE: 2.1 qt Tendovo + 30 oz Roundup PM3 + AMS *fb*

100%

POST: 2 pt Enlist One + 25 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



13 days after POST (7/5)

PRE: 2 pt Prefix + 8 oz Metricor + 1.5 pt Enlist One + 30 oz RU PM3 + AMS 100%

POST: 2 pt Enlist One + 25 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



13 days after POST (7/5)

PRE: 6 oz Zidua PRO + 1.5 pt Enlist One + 30 oz Roundup PM3 + AMS *fb*

100%

POST: 2 pt Enlist One + 25 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



41 days after EPOST (7/5)

Pre-Plant: 2.1 qt Tendovo + 1 pt 2,4-D One *fb*

90%

EPOST: 2 pt Enlist One + 30 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



41 days after EPOST (7/5)

PRE: 2.1 qt Tendovo + NIS *fb*

93%

EPOST: 2 pt Enlist One + 30 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



41 days after EPOST (7/5)

PRE: 2 pt Prefix + 8 oz Metricor + 1.5 pt Enlist One *fb*

100%

EPOST: 2 pt Enlist One + 30 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



41 days after EPOST (7/5)

EPOST: 2 pt Prefix + 3 oz Pursuit + 2 pt Enlist One + 30 oz RU PM3 + AMS

95%



41 days after EPOST (7/5)

EPOST: 2 pt Enlist One + 30 oz RU PM3 + 1.25 pt Dual II Magnum + AMS

98%



Syngenta Soybean Herbicides Following Rye Brooklyn, WI 2023

Plot pictures taken on 10/5
4 days before soybean harvest

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

Soybean Harvest (10/5)

0%

Pre-Plant: 30 oz Roundup PM3 + 1 pt 2,4-D + AMS - (Early Check)





Soybean Harvest (10/5)

Pre-Plant: 2.1 qt Tendovo + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

93%

POST: 2 pt Enlist One + 25 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



Soybean Harvest (10/5)

PRE: 2.1 qt Tendovo + 30 oz Roundup PM3 + AMS *fb*

96%

POST: 2 pt Enlist One + 25 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



Soybean Harvest (10/5)

PRE: 2 pt Prefix + 8 oz Metricor + 1.5 pt Enlist One + 30 oz RU PM3 + AMS 99%

POST: 2 pt Enlist One + 25 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



Soybean Harvest (10/5)

PRE: 6 oz Zidua PRO + 1.5 pt Enlist One + 30 oz Roundup PM3 + AMS *fb*

97%

POST: 2 pt Enlist One + 25 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



Soybean Harvest (10/5)

Pre-Plant: 2.1 qt Tendovo + 1 pt 2,4-D One *fb*

48%

EPOST: 2 pt Enlist One + 30 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



Soybean Harvest (10/5)

PRE: 2.1 qt Tendovo + NIS *fb*

62%

EPOST: 2 pt Enlist One + 30 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



Soybean Harvest (10/5)

PRE: 2 pt Prefix + 8 oz Metricor + 1.5 pt Enlist One *fb*

77%

EPOST: 2 pt Enlist One + 30 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



Soybean Harvest (10/5)

98%

EPOST: 2 pt Prefix + 3 oz Pursuit + 2 pt Enlist One + 30 oz RU PM3 + AMS



Soybean Harvest (10/5)

EPOST: 2 pt Enlist One + 30 oz RU PM3 + 1.25 pt Dual II Magnum + AMS

94%

