

Syngenta Corn Herbicides Following Rye Janesville, WI 2023

Trial Information

Trial Sponsor(s): Syngenta

Objective: Evaluate Syngenta corn herbicide programs following a rye cover crop

Crop: Corn

Variety: NK9653-5222-EZ1

Weed species (pressure): giant ragweed (moderate)
glyphosate-R waterhemp (moderate)

Herbicide Application(s): Pre-Plant – 4/27 (7" rye)
PRE – 5/11 (11" rye)
POST – 6/6 (V4 corn)

For the full report see trial #23-ROK-CN10 in the [2023 Wisconsin Weed Science Research Report](#)



Cropping Systems Weed Science
UNIVERSITY OF WISCONSIN-MADISON

syngenta

Syngenta Corn Herbicides Following Rye (Janesville, WI 2023)

Trt #	Herbicide (rate acre ⁻¹)	Rye (%)		Giant Ragweed (%)			Waterhemp (%)			Yield ^b bu acre ⁻¹
		5/25	6/6	6/6	6/20	10/18	6/6	6/20	10/18	
1	Early Termination – Check ^c	100	100	0	0	0	0	0	0	91 b
3	Plant Green – Check ^c	100	97	80	69	44	76	64	40	109 b
Two-Pass – Pre-Plant (4/27) fb POST (6/6)										
2	Early Termination Acuron (1.5 qt) + Roundup PM3 (30 oz) + 2,4-D LV4 (1 pt) + AMS (2.5%) fb Halx GT (3.6 pt) + Clarity (4 oz) + atrazine (1 pt) + NIS (0.25%) + AMS (2.5%)	99	82	83	98	99	89	95	83	179 a
One-Pass – PRE (5/11)										
4	Plant Green Acuron (3 qt) + Roundup PM3 (30 oz) + 2,4-D LV4 (1 pt) + AMS (2.5%)	85	93	99	98	96	100	99	77	178 a
10	Plant Green Storen (2.4 qt) + atrazine (1.5 pt) + Roundup PM3 (30 oz) + 2,4-D LV4 (1 pt) + AMS (2.5%)	90	94	97	90	69	100	96	80	160 a
Two-Pass – PRE (5/11) fb POST (6/6)										
5	Plant Green Lumax EZ (1.5 qt) + Roundup PM3 (30 oz) + 2,4-D LV4 (1 pt) + AMS (2.5%) fb Acuron GT (3.75 pt) + atrazine (1 pt) + NIS (0.25%) + AMS (2.5%)	93	97	86	96	94	96	100	82	190 a
6	Plant Green Bicep Lite II Magnum (1 qt) + Roundup PM3 (30 oz) + 2,4-D LV4 (1 pt) + AMS (2.5%) fb Acuron GT (3.75 pt) + atrazine (1 pt) + NIS (0.25%) + AMS (2.5%)	95	96	86	97	96	88	100	61	178 a
7	Plant Green Acuron (1.5 qt) + Gramoxone SL 2.0 (3.75 pt) + 2,4-D LV4 (1 pt) + COC (1%) fb Halx GT (3.6 pt) + Clarity (4 oz) + atrazine (1 pt) + NIS (0.25%) + AMS (2.5%)	96	83	82	99	99	78	96	75	181 a
8	Plant Green Acuron (1.5 qt) + Roundup PM3 (30 oz) + 2,4-D LV4 (1 pt) + AMS (2.5%) fb Halx GT (3.6 pt) + Clarity (4 oz) + atrazine (1 pt) + NIS (0.25%) + AMS (2.5%)	93	95	85	98	94	100	100	81	189 a
9	Plant Green Storen (1.2 qt) + atrazine (.75 pt) + Roundup PM3 (30 oz) + 2,4-D LV4 (1 pt) + AMS (2.5%) fb Storen (1.2 qt) + atrazine (1 pt) + Roundup PM3 (26 oz) + AMS (2.5%)	90	96	89	98	95	100	100	88	191 a
11	Plant Green Acuron (2.5 qt) + Roundup PM3 (30 oz) + 2,4-D LV4 (1 pt) + AMS (2.5%) fb Roundup PM3 (30 oz) + Status (2.5 oz) + AMS (2.5%)	91	94	92	99	97	96	100	85	180 a
LSD ($\alpha=0.10$)		4	6	15	9	13	14	6	14	25
p value		<.001	<.001	<.001	<.001	<.001	<.001	<.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 checks at the appropriate timing: Early – 4/27; Plant Green – 5/11.

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Plot pictures taken on 5/11
14 days after the pre-plant application
The day of corn planting



14 days after PRE-PLANT (5/11)

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



14 days after PRE-PLANT (5/11)

PRE-PLANT: 1.5 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS



Syngenta Corn Herbicides Following Rye Janesville, WI 2023

Plot pictures taken on 5/25

28 days after the Pre-Plant application

14 days after the PRE application

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

28 days after PRE-PLANT (5/25)

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

100%



14 days after PRE (5/25)

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

100%



28 days after PRE-PLANT (5/25)

PRE-PLANT: 1.5 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS

99%



14 days after PRE (5/25)

PRE: 3 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS

85%



14 days after PRE (5/25)

PRE: 2.4 qt Storen + 1.5 pt ATZ + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS

90%



14 days after PRE (5/25)

PRE: 1.5 qt Lumax EZ + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS

93%



14 days after PRE (5/25)

PRE: 1 qt Bicep Lite II Magnum + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS

95%



14 days after PRE (5/25)

PRE: 1.5 qt Acuron + 3.75 pt Gramoxone SL 2.0 + 1 pt 2,4-D + COC

96%



14 days after PRE (5/25)

93%

PRE: 1.5 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS



14 days after PRE (5/25)

PRE: 1.2 qt Storen + 0.75 pt ATZ + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS

90%



14 days after PRE (5/25)

PRE: 2.5 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS

91%



Syngenta Corn Herbicides Following Rye Janesville, WI 2023

Plot pictures taken on 6/20

54 days after the Pre-Plant application

40 days after the PRE application

14 days after the POST application

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

54 days after PRE-PLANT (6/20)

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

0%



40 days after PRE (6/20)

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

64%



14 days after POST (6/20)

PP: 1.5 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

95%

POST: 3.6 pt Halex GT + 4 oz Clarity + 1 pt atrazine + NIS + AMS



40 days after PRE (6/20)

PRE: 3 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS

99%



40 days after PRE (6/20)

PRE: 2.4 qt Storen + 1.5 pt ATZ + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS

96%



14 days after POST (6/20)

PRE: 1.5 qt Lumax EZ + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS fb

100%

POST: 3.75 pt Acuron GT + 1 pt atrazine + NIS + AMS



14 days after POST (6/20)

PRE: 1 qt Bicep Lite II Magnum + 30 oz RU PM3 + 1 pt 2,4-D + AMS fb

100%

POST: 3.75 pt Acuron GT + 1 pt atrazine + NIS + AMS



14 days after POST (6/20)

PRE: 1.5 qt Acuron + 3.75 pt Gramoxone SL 2.0 + 1 pt 2,4-D + COC *fb*

96%

POST: 3.6 pt Halex GT + 4 oz Clarity + 1 pt atrazine + NIS + AMS



14 days after POST (6/20)

PRE: 1.5 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

100%

POST: 3.6 pt Halex GT + 4 oz Clarity + 1 pt atrazine + NIS + AMS



14 days after POST (6/20)

PRE: 1.2 qt Storen + 0.75 pt ATZ + 30 oz RU PM3 + 1 pt 2,4-D + AMS fb

100%

POST: 1.2 qt Storen + 1 pt atrazine + 26 oz Roundup PM3 + AMS



14 days after POST (6/20)

PRE: 2.5 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS fb

100%

POST: 30 oz Roundup PM3 + 2.5 oz Status + AMS



Syngenta Corn Herbicides Following Rye Janesville, WI 2023

Plot pictures taken on 7/5

69 days after the Pre-Plant application

55 days after the PRE application

29 days after the POST application

69 days after PRE-PLANT (7/5)

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



55 days after PRE (7/5)

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



69 days after PRE-PLANT (7/5)

PP: 1.5 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

POST: 3.6 pt Halex GT + 4 oz Clarity + 1 pt atrazine + NIS + AMS



55 days after PRE (7/5)

PRE: 3 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS



55 days after PRE (7/5)

PRE: 2.4 qt Storen + 1.5 pt ATZ + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS



29 days after POST (7/5)

PRE: 1.5 qt Lumax EZ + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

POST: 3.75 pt Acuron GT + 1 pt atrazine + NIS + AMS



29 days after POST (7/5)

PRE: 1 qt Bicep Lite II Magnum + 30 oz RU PM3 + 1 pt 2,4-D + AMS fb

POST: 3.75 pt Acuron GT + 1 pt atrazine + NIS + AMS



29 days after POST (7/5)

PRE: 1.5 qt Acuron + 3.75 pt Gramoxone SL 2.0 + 1 pt 2,4-D + COC *fb*

POST: 3.6 pt Halex GT + 4 oz Clarity + 1 pt atrazine + NIS + AMS



29 days after POST (7/5)

PRE: 1.5 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

POST: 3.6 pt Halex GT + 4 oz Clarity + 1 pt atrazine + NIS + AMS



29 days after POST (7/5)

PRE: 1.2 qt Storen + 0.75 pt ATZ + 30 oz RU PM3 + 1 pt 2,4-D + AMS fb

POST: 1.2 qt Storen + 1 pt atrazine + 26 oz Roundup PM3 + AMS



29 days after POST (7/5)

PRE: 2.5 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

POST: 30 oz Roundup PM3 + 2.5 oz Status + AMS



Syngenta Corn Herbicides Following Rye Janesville, WI 2023

Plot pictures taken on 10/18
The day of corn harvest

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

@Harvest (10/18)

0%

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



@Harvest (10/18)

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

40%



@Harvest (10/18)

PP: 1.5 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

83%

POST: 3.6 pt Halex GT + 4 oz Clarity + 1 pt atrazine + NIS + AMS



@Harvest (10/18)

77%

PRE: 3 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS



@Harvest (10/18)

80%

PRE: 2.4 qt Storen + 1.5 pt ATZ + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS



@Harvest (10/18)

PRE: 1.5 qt Lumax EZ + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

82%

POST: 3.75 pt Acuron GT + 1 pt atrazine + NIS + AMS



@Harvest (10/18)

PRE: 1 qt Bicep Lite II Magnum + 30 oz RU PM3 + 1 pt 2,4-D + AMS fb

61%

POST: 3.75 pt Acuron GT + 1 pt atrazine + NIS + AMS



@Harvest (10/18)

PRE: 1.5 qt Acuron + 3.75 pt Gramoxone SL 2.0 + 1 pt 2,4-D + COC *fb*

75%

POST: 3.6 pt Halex GT + 4 oz Clarity + 1 pt atrazine + NIS + AMS



@Harvest (10/18)

PRE: 1.5 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

81%

POST: 3.6 pt Halex GT + 4 oz Clarity + 1 pt atrazine + NIS + AMS



@Harvest (10/18)

PRE: 1.2 qt Storen + 0.75 pt ATZ + 30 oz RU PM3 + 1 pt 2,4-D + AMS fb

88%

POST: 1.2 qt Storen + 1 pt atrazine + 26 oz Roundup PM3 + AMS



@Harvest (10/18)

PRE: 2.5 qt Acuron + 30 oz Roundup PM3 + 1 pt 2,4-D + AMS fb

85%

POST: 30 oz Roundup PM3 + 2.5 oz Status + AMS

