

Evaluation of Tendovo for Residual Weed Control and Crop Safety (Janesville, WI 2021)

Trial Information

Trial Sponsor(s): Syngenta

Objective: Compare the residual weed control and crop safety of Tendovo* to other Syngenta and competitor PRE soybean herbicides

Crop: Enlist Soybean

Variety: S20-E3

Weed species (pressure): giant ragweed (high-very high)
velvetleaf (low-moderate)
lambsquarters (low-moderate)
giant foxtail (moderate-high)

Herbicide Application(s): PRE – 5/3
POST – 6/2 (VC soybean)
LPOST – 7/1 (R1 soybean)

***Tendovo 4.14 ZC** is a new premix offering from Syngenta containing 3.33 lb/gal S-metolachlor; 0.64 lb/gal metribuzin; and 0.06 lb/gal cloransulam. Registration is expected sometime in 2022.

For the full report see trial #21-ROK-SB11 in the [2021 Wisconsin Weed Science Research Report](#)



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Trt # Herbicide (rate acre ⁻¹)	Giant Ragweed (%)					Velvetleaf (%)			Lambsquarters (%)			Giant Foxtail (%)				Yield ^b bu acre ⁻¹
	5/24	6/2	6/15	7/1	10/1	6/2	6/15	10/1	6/2	6/15	10/1	6/2	6/15	7/1	10/1	
1 Untreated Check	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 c
Three-Pass – PRE (5/3) <i>fb</i> POST (6/2) <i>fb</i> LPOST (7/1)																
2 Tendovo (3.5 pt) <i>fb</i> Enlist One (32 fl oz) + Sequence (3.5 pt)* <i>fb</i> Liberty (32 fl oz) + AMS (2 lb)	68	58	93	73	93	99	100	100	99	100	100	85	99	83	94	69 a
3 Tendovo (4.2 pt) <i>fb</i> Enlist One (32 fl oz) + Sequence (3.5 pt)* <i>fb</i> Liberty (32 fl oz) + AMS (2 lb)	66	61	93	73	99	100	100	100	100	100	100	82	99	80	97	70 a
4 Boundary (29 fl oz) <i>fb</i> Enlist One (32 fl oz) + Sequence (3.5 pt)* <i>fb</i> Liberty (32 fl oz) + AMS (2 lb)	16	3	96	80	89	65	100	100	97	100	100	54	100	86	92	65 ab
5 Broadaxe XC (25 fl oz) <i>fb</i> Enlist One (32 fl oz) + Sequence (3.5 pt)* <i>fb</i> Liberty (32 fl oz) + AMS (2 lb)	13	3	96	83	79	58	100	100	99	100	100	81	100	87	90	63 b
6 Sonic (6.45 oz) <i>fb</i> Enlist One (32 fl oz) + Sequence (3.5 pt)* <i>fb</i> Liberty (32 fl oz) + AMS (2 lb)	77	66	95	76	99	98	100	100	100	100	100	88	96	76	99	68 ab
7 Fierce XLT (4.5 oz) <i>fb</i> Enlist One (32 fl oz) + Sequence (3.5 pt)* <i>fb</i> Liberty (32 fl oz) + AMS (2 lb)	67	63	91	63	92	100	100	100	100	100	100	97	99	86	99	67 ab
8 Zidua PRO (6 fl oz) <i>fb</i> Enlist One (32 fl oz) + Sequence (3.5 pt)* <i>fb</i> Liberty (32 fl oz) + AMS (2 lb)	79	77	94	75	98	100	100	100	100	100	100	99	100	97	99	65 ab
9 Authority Edge (9 fl oz) <i>fb</i> Enlist One (32 fl oz) + Sequence (3.5 pt)* <i>fb</i> Liberty (32 fl oz) + AMS (2 lb)	31	11	95	81	95	62	100	100	99	100	100	91	96	84	95	65 ab
LSD ($\alpha=0.10$)	17	10	3	6	4	16	ns	ns	ns	ns	ns	16	ns	ns	6	6
p value	<.001	<.001	0.039	<.001	<.001	<.001	1.000	1.000	0.304	1.000	1.000	0.004	0.450	0.132	0.098	<0.001

^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.

*Class Act Ridion at 1% v/v was included in the first POST application of Enlist One + Sequence.

Evaluation of Tendovo for Residual Weed Control and Crop Safety (Janesville, WI 2021)

Plot pictures taken on 5/24
21 days after the PRE application

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

21 days after PRE (5/24)

0%

Untreated Check



21 days after PRE (5/24)

PRE: 3.5 pt Tendovo

68%



21 days after PRE (5/24)

PRE: 4.2 pt Tendovo

66%



21 days after PRE (5/24)
PRE: 29 fl oz Boundary

16%



21 days after PRE (5/24)
PRE: 25 fl oz Broadaxe XC

13%



21 days after PRE (5/24)

PRE: 6.45 oz Sonic

77%



21 days after PRE (5/24)

PRE: 4.5 oz Fierce XLT

67%



21 days after PRE (5/24)

PRE: 6 fl oz Zidua PRO

79%



21 days after PRE (5/24)
PRE: 9 fl oz Authority Edge

31%



Evaluation of Tendovo for Residual Weed Control and Crop Safety (Janesville, WI 2021)

Plot pictures taken on 6/2
30 days after the PRE application
The day of the POST application

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





30 days after PRE (6/2)
PRE: 4.2 pt Tendovo

61%





30 days after PRE (6/2)
PRE: 25 fl oz Broadaxe XC

3%



30 days after PRE (6/2)

PRE: 6.45 oz Sonic

66%



30 days after PRE (6/2)
PRE: 4.5 oz Fierce XLT

63%



30 days after PRE (6/2)
PRE: 6 fl oz Zidua PRO

77%



30 days after PRE (6/2)
PRE: 9 fl oz Authority Edge

11%



Evaluation of Tendovo for Residual Weed Control and Crop Safety (Janesville, WI 2021)

Plot pictures taken on 6/15
43 days after the PRE application
13 days after the POST application

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

43 days after PRE (6/15)

0%

Untreated Check



13 days after POST (6/15)

PRE: 3.5 pt Tendovo *fb*

93%

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion



13 days after POST (6/15)

PRE: 4.2 pt Tendovo *fb*

93%

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion



13 days after POST (6/15)

PRE: 29 fl oz Boundary *fb*

96%

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion



13 days after POST (6/15)

PRE: 25 fl oz Broadaxe XC *fb*

96%

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion



13 days after POST (6/15)

PRE: 6.45 oz Sonic *fb*

95%

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion



13 days after POST (6/15)

PRE: 4.5 oz Fierce XLT *fb*

91%

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion



13 days after POST (6/15)

PRE: 6 fl oz Zidua PRO *fb*

94%

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion



13 days after POST (6/15)

PRE: 9 fl oz Authority Edge *fb*

95%

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion



Evaluation of Tendovo for Residual Weed Control and Crop Safety (Janesville, WI 2021)

Plot pictures taken on 7/1

59 days after the PRE application

29 days after the POST application

The day of the LPOST application

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

59 days after PRE (7/1)
Untreated Check

0%



29 days after POST (7/1)

PRE: 3.5 pt Tendovo *fb*

73%

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion



29 days after POST (7/1)

PRE: 4.2 pt Tendovo *fb*

73%

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion



29 days after POST (7/1)

PRE: 29 fl oz Boundary *fb*

80%

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion



29 days after POST (7/1)

PRE: 25 fl oz Broadaxe XC *fb*

83%

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion



29 days after POST (7/1)

PRE: 6.45 oz Sonic *fb*

76%

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion



29 days after POST (7/1)

PRE: 4.5 oz Fierce XLT *fb*

63%

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion



29 days after POST (7/1)

PRE: 6 fl oz Zidua PRO *fb*

75%

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion



29 days after POST (7/1)

PRE: 9 fl oz Authority Edge *fb*

81%

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion



Evaluation of Tendovo for Residual Weed Control and Crop Safety (Janesville, WI 2021)

Plot pictures taken on 7/1
The day of soybean harvest

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

Soybean harvest (10/1)

0%

Untreated Check



Soybean harvest (10/1)

PRE: 3.5 pt Tendovo *fb*

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion *fb*

LPOST: 32 fl oz Liberty + 2 lb AMS

93%



Soybean harvest (10/1)

PRE: 4.2 pt Tendovo *fb*

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion *fb*

LPOST: 32 fl oz Liberty + 2 lb AMS

99%



Soybean harvest (10/1)

PRE: 29 fl oz Boundary *fb*

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion *fb*

LPOST: 32 fl oz Liberty + 2 lb AMS

89%



Soybean harvest (10/1)

PRE: 25 fl oz Broadaxe XC *fb*

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion *fb*

LPOST: 32 fl oz Liberty + 2 lb AMS

79%



Soybean harvest (10/1)

PRE: 6.45 oz Sonic *fb*

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion *fb*

LPOST: 32 fl oz Liberty + 2 lb AMS

99%



Soybean harvest (10/1)

PRE: 4.5 oz Fierce XLT *fb*

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion *fb*

LPOST: 32 fl oz Liberty + 2 lb AMS

92%



Soybean harvest (10/1)

PRE: 6 fl oz Zidua PRO *fb*

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion *fb*

LPOST: 32 fl oz Liberty + 2 lb AMS

98%



Soybean harvest (10/1)

PRE: 9 fl oz Authority Edge *fb*

POST: 32 fl oz Enlist One + 3.5 pt Sequence + 1% v/v Class Act Ridion *fb*

LPOST: 32 fl oz Liberty + 2 lb AMS

95%

