

Liberty Tank Mix Combinations: Crop Tolerance Arlington, WI 2021

Trial Information

Trial Sponsor(s): Wisconsin Weed Science; Wisconsin Soybean Marketing Board

Objective: Evaluate tank mixture combinations of Liberty with Enlist, Basagran, and PPO herbicides for crop safety

Crop: Enlist Soybean

Variety: P22T86E

Weed species (pressure): n/a

Herbicide Application(s): PRE – 5/12
POST – 6/28 (V4/V5 soybean)

For the full report see trial #21-ARL-SB17 in the [2021 Wisconsin Weed Science Research Report](#)



Cropping Systems Weed Science
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Liberty Tank Mix Combinations: Crop Tolerance Arlington & Janesville, WI 2021

Trt # Herbicide (rate acre ⁻¹)	Arlington, WI			Janesville, WI		
	Crop Injury ^a (%)		Canopy ^b (%)	Crop Injury ^a (%)		Canopy ^b (%)
	7 DAT	14 DAT	14 DAT	11 DAT	18 DAT	14 DAT
1 Untreated Check	0	0	61 ef	0	0	81 abc
One-Pass – PRE (5/26)						
2 Valor SX (2 oz)	0	0	70 bc	0.8	0.5	78 abc
Two-Pass – PRE (5/26) fb POST (6/30)						
3 Valor SX (2 ox) fb Liberty (32 fl oz) + AMS (2 lb)	2.5	2.5	72 ab	3.0	1.0	76 bcd
21 Valor SX (2 ox) fb Liberty (43 fl oz) + AMS (2 lb)	4.3	5.5	70 abc	3.5	1.8	78 abc
4 Valor SX (2 ox) fb Cobra (12.5 fl oz) + COC 1% v/v + AMS (2 lb)	35.5	37.3	42 g	38.3	23.3	66 d
5 Valor SX (2 ox) fb Cobra (12.5 fl oz) + Liberty (32 fl oz) + AMS (2 lb)	32.0	33.8	46 g	47.0	26.0	65 d
7 Valor SX (2 ox) fb Flexstar (1 pt) + COC 1% v/v + AMS (2 lb)	6.0	13.0	67 bcd	17.3	9.3	78 abc
8 Valor SX (2 ox) fb Flexstar (1 pt) + Liberty (32 fl oz) + AMS (2 lb)	15.5	19.3	63 def	26.3	15.8	85 ab
10 Valor SX (2 ox) fb Resource (8 fl oz) + COC 1% v/v + AMS (2 lb)	14.5	20.0	60 f	31.0	16.5	81 abc
11 Valor SX (2 ox) fb Resource (8 fl oz) + Liberty (32 fl oz) + AMS (2 lb)	15.0	20.8	61 ef	28.0	15.0	77 bcd
13 Valor SX (2 ox) fb Cadet (0.9 fl oz) + COC 1% v/v + AMS (2 lb)	13.5	15.3	65 cde	22.0	12.3	85 ab
14 Valor SX (2 ox) fb Cadet (0.9 fl oz) + Liberty (32 fl oz) + AMS (2 lb)	10.0	10.5	71 ab	19.5	11.3	75 bcd
16 Valor SX (2 ox) fb Basagran (1.6 pt) + COC 1% v/v + AMS (2 lb)	0.8	1.8	69 bc	20.3	7.3	70 cd
17 Valor SX (2 ox) fb Basagran (1.6 pt) + Liberty (32 fl oz) + AMS (2 lb)	0.3	0.3	71 ab	15.3	6.5	82 ab
19 Valor SX (2 ox) fb Enlist One (32 fl oz) + AMS (2 lb)	0.0	0.0	75 a	1.3	0.8	89 a
20 Valor SX (2 ox) fb Enlist One (32 fl oz) + Liberty (32 fl oz) + AMS (2 lb)	2.8	3.5	69 bc	4.5	1.5	75 bcd
LSD ($\alpha=0.10$)	1.3	1.9	5	6.2	3.8	11
p value	<0.001	<0.001	<0.001	<0.001	<0.001	0.057

^aCrop injury rated as % leaf necrosis (leaf burn)

^bSoybean canopy coverage % estimated by analyzing 3 pictures of each plot with the CANAPEO application. Values with the same letters are not significantly different.

Liberty Tank Mix Combinations: Crop Tolerance Arlington, WI 2021

Plot pictures taken on 7/6
7 days after the POST application

The number in the upper right-hand corner is the average %
soybean injury of 4 replications

7 days after POST (7/6)
Weed Free Check

0%



7 days after POST (7/6)
PRE Only: 2 oz Valor SX

0%



7 days after POST (7/6)
POST: 32 fl oz Liberty + 2 lb AMS

2.5%





7 days after POST (7/6)
POST: 43 fl oz Liberty + 2 lb AMS

4.3%



7 days after POST (7/6)

POST: 12.5 fl oz Cobra + 1% v/v COC + 2 lb AMS

36%



7 days after POST (7/6)
POST: 12.5 fl oz Cobra + 1% v/v COC + 2 lb AMS

36%



7 days after POST (7/6)

POST: 12.5 fl oz Cobra + 32 fl oz Liberty + 2 lb AMS

32%



7 days after POST (7/6)
POST: 12.5 fl oz Cobra + 32 fl oz Liberty + 2 lb AMS

32%



7 days after POST (7/6)

POST: 1 pt Flexstar + 1% v/v COC + 2 lb AMS

6%



7 days after POST (7/6)
POST: 1 pt Flexstar + 1% v/v COC + 2 lb AMS

6%



7 days after POST (7/6)

POST: 1 pt Flexstar + 32 fl oz Liberty + 2 lb AMS

15.5%



7 days after POST (7/6)
POST: 1 pt Flexstar + 32 fl oz Liberty + 2 lb AMS

15.5%



7 days after POST (7/6)

POST: 8 fl oz Resource + 1% v/v COC + 2 lb AMS

14.5%



7 days after POST (7/6)
POST: 8 fl oz Resource + 1% v/v COC + 2 lb AMS

14.5%



7 days after POST (7/6)

POST: 8 fl oz Resource + 32 fl oz Liberty + 2 lb AMS

15%



7 days after POST (7/6)
POST: 8 fl oz Resource + 32 fl oz Liberty + 2 lb AMS

15%



7 days after POST (7/6)

POST: 0.9 fl oz Cadet + 1% v/v COC + 2 lb AMS

13.5%



7 days after POST (7/6)
POST: 0.9 fl oz Cadet + 1% v/v COC + 2 lb AMS

13.5%



7 days after POST (7/6)

POST: 0.9 fl oz Cadet + 32 fl oz Liberty + 2 lb AMS

10%





7 days after POST (7/6)

POST: 1.6 pt Basagran + 1% v/v COC + 2 lb AMS

0.8%



7 days after POST (7/6)
POST: 1.6 pt Basagran + 1% v/v COC + 2 lb AMS

0.8%



7 days after POST (7/6)

POST: 1.6 pt Basagran + 32 fl oz Liberty + 2 lb AMS

0.3%



7 days after POST (7/6)
POST: 1.6 pt Basagran + 32 fl oz Liberty + 2 lb AMS

0.3%



7 days after POST (7/6)
POST: 32 fl oz Enlist One + 2 lb AMS

0%



7 days after POST (7/6)
POST: 32 fl oz Enlist One + 2 lb AMS

0%





7 days after POST (7/6)
POST: 32 fl oz Enlist One + 32 fl oz Liberty + 2 lb AMS

3%



Liberty Tank Mix Combinations: Crop Tolerance Arlington, WI 2021

Plot pictures taken on 7/12
14 days after the POST application

The number in the upper right-hand corner is the average %
soybean injury of 4 replications

14 days after POST (7/12)
Weed Free Check

0%



14 days after POST (7/12)
PRE Only: 2 oz Valor SX

0%



14 days after POST (7/12)
POST: 32 fl oz Liberty + 2 lb AMS

2.5%



14 days after POST (7/12)
POST: 43 fl oz Liberty + 2 lb AMS

5.5%



14 days after POST (7/12)

POST: 12.5 fl oz Cobra + 1% v/v COC + 2 lb AMS

37%



14 days after POST (7/12)

POST: 12.5 fl oz Cobra + 32 fl oz Liberty + 2 lb AMS

34%



14 days after POST (7/12)

POST: 1 pt Flexstar + 1% v/v COC + 2 lb AMS

13%



14 days after POST (7/12)

POST: 1 pt Flexstar + 32 fl oz Liberty + 2 lb AMS

19%



14 days after POST (7/12)

POST: 8 fl oz Resource + 1% v/v COC + 2 lb AMS

20%



14 days after POST (7/12)

POST: 8 fl oz Resource + 32 fl oz Liberty + 2 lb AMS

21%



14 days after POST (7/12)

POST: 0.9 fl oz Cadet + 1% v/v COC + 2 lb AMS

15%



14 days after POST (7/12)

POST: 0.9 fl oz Cadet + 32 fl oz Liberty + 2 lb AMS

10.5%



14 days after POST (7/12)

POST: 1.6 pt Basagran + 1% v/v COC + 2 lb AMS

2%



14 days after POST (7/12)

POST: 1.6 pt Basagran + 32 fl oz Liberty + 2 lb AMS

0.3%



14 days after POST (7/12)
POST: 32 fl oz Enlist One + 2 lb AMS

0%



14 days after POST (7/12)

POST: 32 fl oz Enlist One + 32 fl oz Liberty + 2 lb AMS

3.5%



Liberty Tank Mix Combinations: Crop Tolerance Janesville, WI 2021

Trial Information

Trial Sponsor(s): Wisconsin Weed Science; Wisconsin Soybean Marketing Board

Objective: Evaluate tank mixture combinations of Liberty with Enlist, Basagran, and PPO herbicides for crop safety

Crop: Enlist Soybean

Variety: P22T86E

Weed species (pressure): n/a

Herbicide Application(s): PRE – 4/29
POST – 6/18 (V3/V4 soybean)

For the full report see trial #21-ROK-SB17 in the [2021 Wisconsin Weed Science Research Report](#)



Cropping Systems Weed Science
UNIVERSITY OF WISCONSIN-MADISON



Liberty Tank Mix Combinations: Crop Tolerance

Janesville, WI 2021

Plot pictures taken on 6/29
11 days after the POST application

The number in the upper right-hand corner is the average %
soybean injury of 4 replications

11 days after POST (6/29)
Weed Free Check

0%



11 days after POST (6/29)
PRE Only: 2 oz Valor SX

0.8%



11 days after POST (6/29)
POST: 32 fl oz Liberty + 2 lb AMS

3%



11 days after POST (6/29)
POST: 43 fl oz Liberty + 2 lb AMS

3.5%



11 days after POST (6/29)

POST: 12.5 fl oz Cobra + 1% v/v COC + 2 lb AMS

38%



11 days after POST (6/29)

POST: 12.5 fl oz Cobra + 32 fl oz Liberty + 2 lb AMS

47%



11 days after POST (6/29)

POST: 1 pt Flexstar + 1% v/v COC + 2 lb AMS

17%



11 days after POST (6/29)

POST: 1 pt Flexstar + 32 fl oz Liberty + 2 lb AMS

26%



11 days after POST (6/29)

POST: 8 fl oz Resource + 1% v/v COC + 2 lb AMS

31%



11 days after POST (6/29)

POST: 8 fl oz Resource + 32 fl oz Liberty + 2 lb AMS

28%



11 days after POST (6/29)

POST: 0.9 fl oz Cadet + 1% v/v COC + 2 lb AMS

22%



11 days after POST (6/29)

POST: 0.9 fl oz Cadet + 32 fl oz Liberty + 2 lb AMS

20%



11 days after POST (6/29)

POST: 1.6 pt Basagran + 1% v/v COC + 2 lb AMS

20%



11 days after POST (6/29)

POST: 1.6 pt Basagran + 32 fl oz Liberty + 2 lb AMS

15%



11 days after POST (6/29)
POST: 32 fl oz Enlist One + 2 lb AMS

1%



11 days after POST (6/29)

POST: 32 fl oz Enlist One + 32 fl oz Liberty + 2 lb AMS

4.5%

