

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
UNIVERSITY OF WISCONSIN-MADISON



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: 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: 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%



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%

