

PSII and HPPD Herbicide POST Tank Mixes Brooklyn, WI 2024

Trial Information

Trial Sponsor: Wisconsin Cropping Systems Weed Science,
 Wisconsin Corn Growers Association

Objective: Evaluate the efficacy of atrazine alternative PSII-
 and HPPD-inhibitor herbicide tank mixes for
 control of waterhemp

Crop: Corn

Hybrid: 202-24STX RIB

Weed species (pressure): waterhemp (high-very high)

Herbicide Application(s): PRE – 5/24
 POST – 6/24 (V6 corn)

For the full report see trial #24-BRO-CN12 in the [2024 Wisconsin Weed Science Research Report](#)
Also, check out this [article](#) by Daniel Zhu discussing his project in more detail!



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Brooklyn, WI 2024

Trt # Herbicide (rate acre ⁻¹)		Corn Injury ^c (%)			Waterhemp (%)			Yield ^b bu acre ⁻¹
		7 DAT	14 DAT	28 DAT	14 DAT	28 DAT	EOS ^e	
1	Check (PRE Only)	0	0	0	0	0	0	154 de
2	Weed Free Check Roundup PowerMAX 3 (30 oz) + Liberty (32 oz) + AMS (2.5 %) <i>fb</i> hand weeding (as necessary)	0	0	0	100	100	100	196 a
Two-Pass – PRE ^d (5/24) <i>fb</i> POST (6/24)								
PSII Only	3 Moxystic 2E (1 pt) + COC (1%) + AMS (2.5%)	1.5	1.0	1.0	11	7	20	156 de
	4 Basagran 5L (1.2 pt) + COC (1%) + AMS (2.5%)	1.5	1.0	0.2	6	8	17	146 e
	5 Metrisor DF (4 oz) + COC (1%) + AMS (2.5%)	27.5	20.0	4.3	31	22	49	163 cde
HPPD Only	6 Callisto (3 oz) + COC (1%) + AMS (2.5%)	1.2	1.0	1.0	66	62	80	178 abcd
	7 Armezon (0.75 oz) + COC (1%) + AMS (2.5%)	1.2	1.0	1.0	39	28	59	180 abcd
PSII + HPPD	8 Callisto (3 oz) + Moxystic 2E (1 pt) + COC (1%) + AMS (2.5%)	3.6	2.0	1.0	93	88	96	197 a
	9 Callisto (3 oz) + Basagran 5L (1.2 pt) + COC (1%) + AMS (2.5%)	2.4	1.0	1.0	74	39	81	197 a
	10 Callisto (3 oz) + Metrisor DF (4 oz) + COC (1%) + AMS (2.5%)	32.5	23.8	4.3	95	92	97	196 a
	11 Armezon (0.75 oz) + Moxystic 2E (1 pt) + COC (1%) + AMS (2.5%)	2.7	1.8	0.9	78	65	82	189 ab
	12 Armezon (0.75 oz)+Basagran 5L (1.2 pt) +COC (1%)+AMS (2.5%)	1.5	1.0	1.0	45	38	55	166 bcde
	13 Armezon (0.75 oz) +Metrisor DF (4 oz) +COC (1%) +AMS (2.5%)	32.5	25.0	3.5	75	68	81	186 abc
LSD ($\alpha=0.05$)		1.4	1.2	0.5	8	10	5	12
p value		<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01

^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.

^cCorn injury = leaf necrosis (burn)

^dVerdict (5 fl oz/a) was applied PRE over the entire trial area including the checks (treatments #1 and #2)

^eEOS = end-of-season weed control rating

PSII and HPPD Herbicide POST Tank Mixes Brooklyn, WI 2024

Plot pictures taken on 7/1
38 days after the PRE application
7 days after the POST application

38 days after PRE (7/1)
PRE: 5 oz Verdict (Check)



7 days after POST (7/1)

PRE: 5 oz Verdict *fb*

POST: 30 oz Roundup PM3 + 32 oz Liberty + AMS



7 days after POST (7/1)
PRE: 5 oz Verdict *fb*
POST: 1 pt Moxy 2E + COC + AMS



7 days after POST (7/1)

PRE: 5 oz Verdict *fb*

POST: 1.2 pt Basagran 5L + COC + AMS



7 days after POST (7/1)

PRE: 5 oz Verdict *fb*

POST: 4 oz Metricor DF + COC + AMS



7 days after POST (7/1)
PRE: 5 oz Verdict *fb*
POST: 3 oz Callisto + COC + AMS



7 days after POST (7/1)

PRE: 5 oz Verdict *fb*

POST: 0.75 oz Armezon + COC + AMS



7 days after POST (7/1)

PRE: 5 oz Verdict *fb*

POST: 3 oz Callisto + 1 pt Moxy 2E + COC + AMS



7 days after POST (7/1)

PRE: 5 oz Verdict *fb*

POST: 3 oz Callisto + 1.2 pt Basagran 5L + COC + AMS



7 days after POST (7/1)

PRE: 5 oz Verdict *fb*

POST: 3 oz Callisto + 4 oz Metricor DF + COC + AMS



7 days after POST (7/1)

PRE: 5 oz Verdict *fb*

POST: 0.75 oz Armezon + 1 pt Moxy 2E + COC + AMS



7 days after POST (7/1)

PRE: 5 oz Verdict *fb*

POST: 0.75 oz Armezon + 1.2 pt Basagran 5L + COC + AMS



7 days after POST (7/1)

PRE: 5 oz Verdict *fb*

POST: 0.75 oz Armezon + 4 oz Metricor DF + COC + AMS



PSII and HPPD Herbicide POST Tank Mixes Brooklyn, WI 2024

Plot pictures taken on 7/8
45 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

45 days after PRE (7/8)
PRE: 5 oz Verdict (Check)

0%



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

100%

POST: 30 oz Roundup PM3 + 32 oz Liberty + AMS *fb* hand weeding



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

11%

POST: 1 pt Moxy 2E + COC + AMS



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

6%

POST: 1.2 pt Basagran 5L + COC + AMS



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

31%

POST: 4 oz Metricor DF + COC + AMS



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

66%

POST: 3 oz Callisto + COC + AMS



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

39%

POST: 0.75 oz Armezon + COC + AMS



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

93%

POST: 3 oz Callisto + 1 pt Moxy 2E + COC + AMS



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

74%

POST: 3 oz Callisto + 1.2 pt Basagran 5L + COC + AMS



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

95%

POST: 3 oz Callisto + 4 oz Metricor DF + COC + AMS



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

78%

POST: 0.75 oz Armezon + 1 pt Moxy 2E + COC + AMS



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

45%

POST: 0.75 oz Armezon + 1.2 pt Basagran 5L + COC + AMS



14 days after POST (7/8)

PRE: 5 oz Verdict *fb*

75%

POST: 0.75 oz Armezon + 4 oz Metricor DF + COC + AMS



PSII and HPPD Herbicide POST Tank Mixes Brooklyn, WI 2024

Plot pictures taken on 7/2
59 days after the PRE application
28 days after the POST application

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

59 days after PRE (7/22)
PRE: 5 oz Verdict (Check)

0%



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

100%

POST: 30 oz Roundup PM3 + 32 oz Liberty + AMS *fb* hand weeding



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

7%

POST: 1 pt Moxy 2E + COC + AMS



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

8%

POST: 1.2 pt Basagran 5L + COC + AMS



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

22%

POST: 4 oz Metricor DF + COC + AMS



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

POST: 3 oz Callisto + COC + AMS

62%



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

28%

POST: 0.75 oz Armezon + COC + AMS



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

88%

POST: 3 oz Callisto + 1 pt Moxy 2E + COC + AMS



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

39%

POST: 3 oz Callisto + 1.2 pt Basagran 5L + COC + AMS



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

92%

POST: 3 oz Callisto + 4 oz Metricor DF + COC + AMS



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

65%

POST: 0.75 oz Armezon + 1 pt Moxy 2E + COC + AMS



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

38%

POST: 0.75 oz Armezón + 1.2 pt Basagran 5L + COC + AMS



28 days after POST (7/22)

PRE: 5 oz Verdict *fb*

68%

POST: 0.75 oz Armezon + 4 oz Metricor DF + COC + AMS

