

Burndown Control of Gly-Resistant Waterhemp Brooklyn, WI 2020

Trial Information

Trial Sponsor: Wisconsin Cropping Systems Weed Science

Objective: Evaluate and demonstrate the effectiveness of multiple single active ingredient POST corn and soybean herbicides on waterhemp

Crop: none

Variety: -

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

Herbicide Application(s): POST – 6/17 (1-5” waterhemp; Avg = 2”)

For the full report see trial #20-BRO-BG04 in the [2020 Wisconsin Weed Science Research Report](#)



Cropping Systems Weed Science
UNIVERSITY OF WISCONSIN-MADISON

Burndown Control of Gly-Resistant Waterhemp

Brooklyn, WI 2020

- Key Take Home Points from 2020 Data:**

 - Few herbicides provided greater than 90% control of glyphosate-resistant waterhemp
 - None of the group 2 or 6 herbicides controlled waterhemp
 - Not all active ingredients withing a given SOA group are equal (see groups 4, 14, and 27 data)
 - POST herbicide programs containing multiple effective sites of action are recommended to broaden weed control spectrum and to lower potential of selection for additional herbicide resistance
 - Using an effective PRE herbicide to reduce density and size of waterhemp can help improve POST weed control



Glyphosate-Resistant Waterhemp Control %		
Herbicide Treatment*	7 DAT	14 DAT
4 fl oz Pursuit	18	3
0.75 oz Classic	9	1
0.3 oz FirstRate	5	0
1 oz Python	30	9
22 fl oz XtendiMax	77	87
32 fl oz Enlist One	76	90
6 fl oz Stinger	3	0
1.5 pt Buctril	14	6
1.6 pt Basagran	4	0
32 fl oz Roundup PMAX	69	61
32 fl oz Liberty	97	95
12.5 fl oz Cobra	82	80
1 pt Flexstar	91	82
0.9 fl oz Cadet	28	9
8 fl oz Resource	58	43
3 fl oz Callisto	71	87
3 fl oz Laudis	81	82
0.75 fl oz Armezon	74	77
5 fl oz Balance Flexx	80	89
LSD (0.10)	8	6
p-value	<0.01	<0.01
*All treatments included the appropriate adjuvants		

Day of application (6/17)



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Plot pictures taken on 6/24
7 days after application

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

7 days after POST (6/24)

POST: 4 fl oz Pursuit + 1.25% COC + 2 lb AMS

18%



7 days after POST (6/24)

POST: 0.75 oz Classic + 1% COC + 2 lb AMS

9%



7 days after POST (6/24)

POST: 0.3 oz FirstRate + 1.2% COC + 2 lb AMS

5%



7 days after POST (6/24)

POST: 1 oz Python + 1% COC + 2 lb AMS

30%



7 days after POST (6/24)

POST: 22 fl oz XtendiMax + 1% Class Act Ridion

77%



7 days after POST (6/24)

POST: 32 fl oz Enlist One + 2 lb AMS

76%



7 days after POST (6/24)
POST: 6 fl oz Stinger

3%



7 days after POST (6/24)
POST: 1.5 pt Buctril

14%



7 days after POST (6/24)

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

4%



7 days after POST (6/24)
POST: 32 fl oz Roundup PowerMAX + 2 lb AMS

69%



glyphosate-resistant

glyphosate-susceptible

7 days after POST (6/24)
POST: 32 fl oz Liberty + 2 lb AMS

97%



7 days after POST (6/24)

POST: 12.5 fl oz Cobra + 1.5 pt COC + 2 lb AMS

82%



7 days after POST (6/24)

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

91%



7 days after POST (6/24)

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

28%



7 days after POST (6/24)

POST: 8 fl oz Resource + 1 qt COC + 2 lb AMS

58%



7 days after POST (6/24)

POST: 3 fl oz Callisto + 1% COC + 2 lb AMS

71%



7 days after POST (6/24)

POST: 3 fl oz Laudis + 1% MSO + 2 lb AMS

81%



7 days after POST (6/24)

POST: 0.75 fl oz Armezon + 1% MSO + 2 lb AMS

74%



7 days after POST (6/24)

POST: 5 fl oz Balance Flexx + 1% MSO + 2 lb AMS

80%



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Plot pictures taken on 7/1
14 days after application

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

14 days after POST (7/1)
POST: 4 fl oz Pursuit + 1.25% COC + 2 lb AMS

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)

POST: 4 fl oz Pursuit + 1.25% COC + 2 lb AMS

3%



14 days after POST (7/1)
POST: 0.75 oz Classic + 1% COC + 2 lb AMS

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)

POST: 0.75 oz Classic + 1% COC + 2 lb AMS

1%



14 days after POST (7/1)
POST: 0.3 oz FirstRate + 1.2% COC + 2 lb AMS

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)

POST: 0.3 oz FirstRate + 1.2% COC + 2 lb AMS

0%



14 days after POST (7/1)
POST: 1 oz Python + 1% COC + 2 lb AMS

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)

POST: 1 oz Python + 1% COC + 2 lb AMS

9%



14 days after POST (7/1)

POST: 22 fl oz XtendiMax + 1% Class Act Ridion

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)

POST: 22 fl oz XtendiMax + 1% Class Act Ridion

87%



14 days after POST (7/1)
POST: 32 fl oz Enlist One + 2 lb AMS

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)
POST: 32 fl oz Enlist One + 2 lb AMS

90%



14 days after POST (7/1)
POST: 6 fl oz Stinger

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)
POST: 6 fl oz Stinger

0%



14 days after POST (7/1)
POST: 1.5 pt Buctril

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)
POST: 1.5 pt Buctril

6%



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

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)

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

0%



14 days after POST (7/1)
POST: 32 fl oz Roundup PowerMAX + 2 lb AMS

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)

POST: 32 fl oz Roundup PowerMAX + 2 lb AMS

61%



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

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

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

95%



14 days after POST (7/1)
POST: 12.5 fl oz Cobra + 1.5 pt COC + 2 lb AMS

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)

POST: 12.5 fl oz Cobra + 1.5 pt COC + 2 lb AMS

80%



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

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)

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

82%



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

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)

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

9%



14 days after POST (7/1)
POST: 8 fl oz Resource + 1 qt COC + 2 lb AMS

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)

POST: 8 fl oz Resource + 1 qt COC + 2 lb AMS

43%



14 days after POST (7/1)

POST: 3 fl oz Callisto + 1% COC + 2 lb AMS

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)

POST: 3 fl oz Callisto + 1% COC + 2 lb AMS

87%



14 days after POST (7/1)
POST: 3 fl oz Laudis + 1% MSO + 2 lb AMS

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)

POST: 3 fl oz Laudis + 1% MSO + 2 lb AMS

82%



14 days after POST (7/1)
POST: 0.75 fl oz Armezon + 1% MSO + 2 lb AMS

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)

POST: 0.75 fl oz Armezon + 1% MSO + 2 lb AMS

77%



14 days after POST (7/1)
POST: 5 fl oz Balance Flexx + 1% MSO + 2 lb AMS

**No
PRE**

**PRE:
Dual II
Magnum
@ 1 pt/a**

14 days after POST (7/1)

POST: 5 fl oz Balance Flexx + 1% MSO + 2 lb AMS

89%

