

**Understanding the value of imazamox (Raptor) for weed control**

Trial ID: SOY06-24 Study Dir.: Sprague, Stiles  
 Conducted: Campus, T-12 Investigator: Christy Sprague

**Planting Date:** May-15-2024 **Row Spacing:** 30 IN  
**Variety:** P25A16E **No. of Reps:** 4  
**Population:** 150000 S/A **% OM:** 2.8  
**Soil Type:** CL clay loam **pH:** 7.0  
**Plot Size:** 10 X 35 FT **Study Design:** Randomized Complete Block (RCB)

**Tillage/Previous Crops:** Fall chisel plow; spring soil finish (3-times)  
**Fertilizer:**

**Crop and Weed Description**

Weed	Code	Common Name	Scientific Name
1	ANGR	annual grasses	
2	CHEAL	common lambsquarters	Chenopodium album
3	AMAPO	Powell amaranth	Amaranthus powellii
4	AMBEL	common ragweed	Ambrosia artemisiifolia
5	SINAR	wild mustard	Sinapis arvensis
6	ACCRH	three-seed mercury	Acalypha rhomboidea
Crop	Code	Common Name	
1	GLXMA	Soybean	

**Application Description**

**Application Timing:** POST  
**Date Treated:** Jun-11-2024  
**Time Treated:** 1:00 PM  
**% Cloud Cover:** 10  
**Air Temp., Unit:** 68 F  
**% Relative Humidity:** 46  
**Wind Speed/Unit/Dir:** 4 MPH SE  
**Soil Temp, Unit:** 63 F  
**Leaf Moist/Dew Presence (Y/N):** N  
**Soil Moist:** 5

**Crop Stage at Each Application**

**A**  
**Crop 1 Name:** GLXMA  
**Height:** 5 "  
**Stage:** V2-V3

**Weed Stage at Each Application**

**A**  
**Weed 1 Name:** ANGR  
**Height:** 2-10 " (6)  
**Stage:** 2-6L  
**Weed 2 Name:** CHEAL  
**Height:** 0-5 " (2.5)  
**Stage:** 2-20L  
**Weed 3 Name:** AMAPO  
**Height:** 0-2 " (1)  
**Stage:** 4-6L  
**Weed 4 Name:** AMBEL  
**Height:** 4 "  
**Stage:** 6-8L  
**Weed 5 Name:** SINAR  
**Height:** 1-3 " (2)  
**Stage:** 4-6L  
**Weed 6 Name:** ACCRH  
**Height:** 0-2 " (1)  
**Stage:** 4-6L

**Weed Density**

	1	2	3	4	5	6
<b>Date:</b>	Jun-11-2024	Jun-11-2024	Jun-11-2024	Jun-11-2024	Jun-11-2024	Jun-11-2024
<b>Weed Name:</b>	ANGR	CHEAL	AMAPO	AMBEL	SINAR	ACCRH
<b>Density:</b>	13 FT2	3 FT2	3 FT2	2 FT2	1 FT2	1 FT2

**Application Equipment**

Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	CUB	3.8 MPH	AIXR	11003	24.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI

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**Comments:** Common ragweed is Group 2 (ALS) resistant.

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Trial ID: SOY06-24

Protocol ID: SOY06-24 Location: Campus, T-12 Trial Year: 2024

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date		Jun-18-2024	Jun-18-2024	Jun-18-2024	Jun-18-2024	Jun-18-2024	Jun-18-2024	Jun-18-2024	Jun-18-2024	
Rating Type		injury	control	control	control	control	control	control	control	
Rating Unit		%	%	%	%	%	%	%	%	
Crop Type, Code		C, GLXMA								
Pest Code			ANGR	CHEAL	AMAPO	AMBEL	SINAR	ACCRH		
Trt-Eval Interval		7 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A	
Number of Decimals		0	0	0	0	0	0	0	0	
Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing					
1	Untreated					0	0	0	0	0
2	Liberty Ultra	24 fl oz/a	A		POST	7	98	99	100	100
	Zidua SC	2.5 fl oz/a	A		POST					
	AMS	1.5 lb/a	A		POST					
3	BAS 101900H	32 fl oz/a	A		POST	11	98	100	100	99
	AMS	1.5 lb/a	A		POST					
4	Surmise 5	16.4 fl oz/a	A		POST	6	99	35	100	100
	Select Max	6 fl oz/a	A		POST					
	Dual II Magnum	1 pt/a	A		POST					
	Crop oil concentrate	1 % v/v	A		POST					
	AMS	1.5 lb/a	A		POST					
5	Liberty Ultra	32 fl oz/a	A		POST	7	97	100	100	100
	Zidua SC	3.1 fl oz/a	A		POST					
	AMS	1.5 lb/a	A		POST					
6	BAS 101900H	40 fl oz/a	A		POST	16	99	100	100	100
	AMS	1.5 lb/a	A		POST					
7	Surmise 5	21.5 fl oz/a	A		POST	6	100	60	99	100
	Select Max	6 fl oz/a	A		POST					
	Dual II Magnum	1 pt/a	A		POST					
	Crop oil concentrate	1 % v/v	A		POST					
	AMS	1.5 lb/a	A		POST					
8	Enlist One	32 fl oz/a	A		POST	6	59	90	94	90
	Select Max	9 fl oz/a	A		POST					
	Dual II Magnum	1 pt/a	A		POST					
	Crop oil concentrate	1 % v/v	A		POST					
	AMS	1.5 lb/a	A		POST					
	LSD P=.05					1.5	3.7	6.3	2.9	1.2
	Standard Deviation					1.0	2.5	4.3	2.0	0.8
	CV					14.39	3.14	5.85	2.32	0.97

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Protocol ID: SOY06-24 Location: Campus, T-12 Trial Year: 2024

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Jun-25-2024	Jun-25-2024	Jun-25-2024	Jun-25-2024	Jun-25-2024	Jun-25-2024	Jun-25-2024	Jul-2-2024
Rating Type	injury	control	control	control	control	control	control	injury
Rating Unit	%	%	%	%	%	%	%	%
Crop Type, Code	C, GLXMA							C, GLXMA
Pest Code		ANGR	CHEAL	AMAPO	AMBEL	ACCRH		
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	21 DA-A
Number of Decimals	0	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing						
1	Untreated					0	0	0	0	0	0
2	Liberty Ultra	24 fl oz/a	A		POST	4	98	95	100	99	92
	Zidua SC	2.5 fl oz/a	A		POST						
	AMS	1.5 lb/a	A		POST						
3	BAS 101900H	32 fl oz/a	A		POST	2	93	99	100	97	89
	AMS	1.5 lb/a	A		POST						
4	Surmise 5	16.4 fl oz/a	A		POST	4	100	65	96	96	88
	Select Max	6 fl oz/a	A		POST						
	Dual II Magnum	1 pt/a	A		POST						
	Crop oil concentrate	1 % v/v	A		POST						
	AMS	1.5 lb/a	A		POST						
5	Liberty Ultra	32 fl oz/a	A		POST	2	99	97	100	98	98
	Zidua SC	3.1 fl oz/a	A		POST						
	AMS	1.5 lb/a	A		POST						
6	BAS 101900H	40 fl oz/a	A		POST	7	98	99	100	98	94
	AMS	1.5 lb/a	A		POST						
7	Surmise 5	21.5 fl oz/a	A		POST	4	100	74	100	98	95
	Select Max	6 fl oz/a	A		POST						
	Dual II Magnum	1 pt/a	A		POST						
	Crop oil concentrate	1 % v/v	A		POST						
	AMS	1.5 lb/a	A		POST						
8	Enlist One	32 fl oz/a	A		POST	4	83	100	100	100	99
	Select Max	9 fl oz/a	A		POST						
	Dual II Magnum	1 pt/a	A		POST						
	Crop oil concentrate	1 % v/v	A		POST						
	AMS	1.5 lb/a	A		POST						
	LSD P=.05					1.9	3.7	5.1	3.7	4.5	5.2
	Standard Deviation					1.3	2.5	3.5	2.5	3.1	3.5
	CV					42.12	3.02	4.42	2.9	3.57	4.28

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Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date		Jul-2-2024	Jul-2-2024	Jul-2-2024	Jul-2-2024	Jul-2-2024	Jul-9-2024	Jul-9-2024	Jul-9-2024	
Rating Type		control	control	control	control	control	injury	control	control	
Rating Unit		%	%	%	%	%	%	%	%	
Crop Type, Code		C, GLXMA								
Pest Code		ANGR	CHEAL	AMAPO	AMBEL	ACCRH		ANGR	CHEAL	
Trt-Eval Interval		21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A	28 DA-A	28 DA-A	28 DA-A	
Number of Decimals		0	0	0	0	0	0	0	0	
Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing					
1	Untreated					0	0	0	0	
2	Liberty Ultra	24 fl oz/a	A		POST	94	93	98	98	
	Zidua SC	2.5 fl oz/a	A		POST				86	
	AMS	1.5 lb/a	A		POST				0	
3	BAS 101900H	32 fl oz/a	A		POST	93	100	100	100	
	AMS	1.5 lb/a	A		POST				87	
4	Surmise 5	16.4 fl oz/a	A		POST	98	51	100	96	
	Select Max	6 fl oz/a	A		POST				78	
	Dual II Magnum	1 pt/a	A		POST				0	
	Crop oil concentrate	1 % v/v	A		POST				100	
	AMS	1.5 lb/a	A		POST				65	
5	Liberty Ultra	32 fl oz/a	A		POST	98	96	100	98	
	Zidua SC	3.1 fl oz/a	A		POST				93	
	AMS	1.5 lb/a	A		POST				0	
6	BAS 101900H	40 fl oz/a	A		POST	98	99	99	98	
	AMS	1.5 lb/a	A		POST				93	
7	Surmise 5	21.5 fl oz/a	A		POST	100	65	100	99	
	Select Max	6 fl oz/a	A		POST				85	
	Dual II Magnum	1 pt/a	A		POST				0	
	Crop oil concentrate	1 % v/v	A		POST				100	
	AMS	1.5 lb/a	A		POST				75	
8	Enlist One	32 fl oz/a	A		POST	86	100	100	100	
	Select Max	9 fl oz/a	A		POST				99	
	Dual II Magnum	1 pt/a	A		POST				0	
	Crop oil concentrate	1 % v/v	A		POST				92	
	AMS	1.5 lb/a	A		POST				99	
	LSD P=.05					4.5	9.3	2.7	4.7	
	Standard Deviation					3.1	6.3	1.9	3.2	
	CV					3.71	8.35	2.15	3.71	
									5.8	
									0.0	
									5.0	
									5.9	
									4.0	
									4.0	
									5.16	

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Investigator: Christy Sprague

Rating Date	Jul-9-2024	Jul-9-2024	Jul-9-2024	Jul-9-2024
Rating Type	control	control	control	control
Rating Unit	%	%	%	%
Crop Type, Code				
Pest Code	AMAPO	AMBEL	SINAR	ACCRH
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A	28 DA-A
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing	0	0	0	0
1	Untreated					0	0	0	0
2	Liberty Ultra	24 fl oz/a	A		POST	97	99	100	85
	Zidua SC	2.5 fl oz/a	A		POST				
	AMS	1.5 lb/a	A		POST				
3	BAS 101900H	32 fl oz/a	A		POST	100	98	100	85
	AMS	1.5 lb/a	A		POST				
4	Surmise 5	16.4 fl oz/a	A		POST	96	96	100	63
	Select Max	6 fl oz/a	A		POST				
	Dual II Magnum	1 pt/a	A		POST				
	Crop oil concentrate	1 % v/v	A		POST				
	AMS	1.5 lb/a	A		POST				
5	Liberty Ultra	32 fl oz/a	A		POST	100	96	100	90
	Zidua SC	3.1 fl oz/a	A		POST				
	AMS	1.5 lb/a	A		POST				
6	BAS 101900H	40 fl oz/a	A		POST	100	96	100	88
	AMS	1.5 lb/a	A		POST				
7	Surmise 5	21.5 fl oz/a	A		POST	100	98	100	75
	Select Max	6 fl oz/a	A		POST				
	Dual II Magnum	1 pt/a	A		POST				
	Crop oil concentrate	1 % v/v	A		POST				
	AMS	1.5 lb/a	A		POST				
8	Enlist One	32 fl oz/a	A		POST	100	96	100	89
	Select Max	9 fl oz/a	A		POST				
	Dual II Magnum	1 pt/a	A		POST				
	Crop oil concentrate	1 % v/v	A		POST				
	AMS	1.5 lb/a	A		POST				
	LSD P=.05					4.7	6.2	.	7.5
	Standard Deviation					3.2	4.2	0.0	5.1
	CV					3.72	4.97	0.0	7.11

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