

MSU Weed Science Research Program

Evaluation of CHA-2745 (pethoxamid) for weed control and soybean tolerance

Trial ID: SOY07-15
 Conducted: Campus C-14

Study Dir.: Sprague and Powell
 Investigator: Christy Sprague

Date Planted: May/06/2015 Row Spacing: 30 IN
 Variety: Asgrow 2433RR No. of Reps: 4
 Population: 150,000 seeds/A % OM: 2.6
 Soil Type: Loam pH: 6.9
 Plot Size: 10 X 30 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow; soil finish twice

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	ANGR	mainly foxtail species	SETARI SP.
2.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
3.	AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIIFOLIA L.
4.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

Application Description

A
 Application Timing: PRE
 Date Treated: May/07/2015
 Time Treated: 9:25 AM
 % Cloud Cover: 5
 Air Temp., Unit: 71 F
 % Relative Humidity: 70
 Wind Speed/Unit/Dir: 3 mph E
 Soil Temp., Unit: 55 F
 Soil/Leaf Surface M: 5 -
 Soil Moist (1=w 5=d): 4

Crop Stage at Each Application

A
 Crop Name: GLXMA
 Height (In.): -
 Stage (L): -

Weed Stage at Each Application

A
 Weed 1 Name: ANGR
 Height (In.): -
 Stage (L): -
 Weed 2 Name: CHEAL
 Height (In.): -
 Stage (L): -
 Weed 3 Name: AMBEL
 Height (In.): -
 Stage (L): -
 Weed 4 Name: ABUTH
 Height (In.): -
 Stage (L): -

Weed Density (plants/sq. ft.)

Date:	1	2	3	4
Jun/09/2015	Jun/09/2015	Jun/09/2015	Jun/09/2015	Jun/09/2015
Weed Name:	ANGR	CHEAL	AMBEL	ABUTH
Density:	190	6	83	7

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Boom				
	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI
A	Cub	3.8	AIXR	11003	20"	20"	100"	19	Water	28

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Weed Code									ANGR	CHEAL	AMBEL	ABUTH
Crop Code									GLXMA			
Rating Data Type									injury	control	control	control
Rating Unit									percent	percent	percent	percent
Rating Date									Jun/04/2015	Jun/04/2015	Jun/04/2015	Jun/04/2015
Trt-Eval Interval									28 DA-A	28 DA-A	28 DA-A	28 DA-A
# Subsamples, Dec.									0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
1	CHA-2745	5	L	1.6	pt/a	PRE	A	8	97	80	30	0
2	CHA-2745	5	L	2	pt/a	PRE	A	11	97	98	40	15
3	CHA-2745	5	L	2.4	pt/a	PRE	A	18	99	98	61	10
4	Untreated							0	0	0	0	0
5	CHA-2745	5	L	2	pt/a	PRE	A	11	99	99	99	96
5	Dawn	2	L	1.2	pt/a	PRE	A					
6	CHA-2745	5	L	2	pt/a	PRE	A	19	99	99	69	97
6	CHA-060	25	WG	1.66	oz/a	PRE	A					
7	CHA-2745	5	L	2	pt/a	PRE	A	14	99	99	70	99
7	Spartan	4	L	4.48	fl oz/a	PRE	A					
8	CHA-2745	5	L	1.6	pt/a	PRE	A	18	99	99	99	99
8	CHA-060	25	WG	1.47	oz/a	PRE	A					
8	Dawn	2	L	1.12	pt/a	PRE	A					
9	CHA-2745	5	L	1.6	pt/a	PRE	A	26	99	99	83	99
9	CHA-060	25	WG	1.28	oz/a	PRE	A					
9	Spartan	4	L	5.12	fl oz/a	PRE	A					
10	Dual Magnum	7.62	L	1	pt/a	PRE	A	7	99	97	0	0
11	Spartan	4	L	4.48	fl oz/a	PRE	A	10	91	99	24	99
12	Authority Elite	7	L	1.56	pt/a	PRE	A	23	99	99	54	99
LSD (P=.05)								5.3	2.1	14.1	10.8	7.5
CV								27.17	1.63	10.96	14.36	8.79

Means followed by same letter do not significantly differ (P=.05, LSD)

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Weed Code								GLXMA	ANGR	CHEAL	AMBEL	ABUTH
Crop Code								injury	control	control	control	control
Rating Data Type								percent	percent	percent	percent	percent
Rating Unit								Jun/18/2015	Jun/18/2015	Jun/18/2015	Jun/18/2015	Jun/18/2015
Rating Date								42 DA-A	42 DA-A	42 DA-A	42 DA-A	42 DA-A
Trt-Eval Interval								0	0	0	0	0
# Subsamples, Dec.												
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
1	CHA-2745	5	L	1.6	pt/a	PRE	A	0	78	75	3	20
2	CHA-2745	5	L	2	pt/a	PRE	A	0	77	79	18	28
3	CHA-2745	5	L	2.4	pt/a	PRE	A	0	82	84	50	43
4	Untreated							0	0	0	0	0
5	CHA-2745	5	L	2	pt/a	PRE	A	0	90	96	98	70
5	Dawn	2	L	1.2	pt/a	PRE	A					
6	CHA-2745	5	L	2	pt/a	PRE	A	28	90	99	56	99
6	CHA-060	25	WG	1.66	oz/a	PRE	A					
7	CHA-2745	5	L	2	pt/a	PRE	A	1	78	99	53	99
7	Spartan	4	L	4.48	fl oz/a	PRE	A					
8	CHA-2745	5	L	1.6	pt/a	PRE	A	25	92	99	96	99
8	CHA-060	25	WG	1.47	oz/a	PRE	A					
8	Dawn	2	L	1.12	pt/a	PRE	A					
9	CHA-2745	5	L	1.6	pt/a	PRE	A	23	91	99	65	99
9	CHA-060	25	WG	1.28	oz/a	PRE	A					
9	Spartan	4	L	5.12	fl oz/a	PRE	A					
10	Dual Magnum	7.62	L	1	pt/a	PRE	A	0	97	0	0	0
11	Spartan	4	L	4.48	fl oz/a	PRE	A	1	63	99	0	99
12	Authority Elite	7	L	1.56	pt/a	PRE	A	0	99	99	0	99
LSD (P=.05)								2.5	5.5	4.0	7.7	8.8
CV								26.65	4.91	3.56	14.6	9.73

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Weed Code									ANGR	CHEAL	AMBEL	ABUTH
Crop Code												
Rating Data Type								GLXMA	control	control	control	control
Rating Unit								injury	percent	percent	percent	percent
Rating Date								percent	percent	percent	percent	percent
Trt-Eval Interval								Jul/02/2015	Jul/02/2015	Jul/02/2015	Jul/02/2015	Jul/02/2015
# Subsamples, Dec.								56 DA-A	56 DA-A	56 DA-A	56 DA-A	56 DA-A
								0	0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
1	CHA-2745	5	L	1.6	pt/a	PRE	A	0	63	0	0	0
2	CHA-2745	5	L	2	pt/a	PRE	A	0	76	0	0	0
3	CHA-2745	5	L	2.4	pt/a	PRE	A	0	80	0	3	0
4	Untreated							0	0	0	0	0
5	CHA-2745	5	L	2	pt/a	PRE	A	0	85	95	98	63
5	Dawn	2	L	1.2	pt/a	PRE	A					
6	CHA-2745	5	L	2	pt/a	PRE	A	26	91	99	28	99
6	CHA-060	25	WG	1.66	oz/a	PRE	A					
7	CHA-2745	5	L	2	pt/a	PRE	A	0	76	99	20	99
7	Spartan	4	L	4.48	fl oz/a	PRE	A					
8	CHA-2745	5	L	1.6	pt/a	PRE	A	23	89	99	95	99
8	CHA-060	25	WG	1.47	oz/a	PRE	A					
8	Dawn	2	L	1.12	pt/a	PRE	A					
9	CHA-2745	5	L	1.6	pt/a	PRE	A	20	89	99	38	99
9	CHA-060	25	WG	1.28	oz/a	PRE	A					
9	Spartan	4	L	5.12	fl oz/a	PRE	A					
10	Dual Magnum	7.62	L	1	pt/a	PRE	A	0	93	0	0	0
11	Spartan	4	L	4.48	fl oz/a	PRE	A	0	61	99	0	99
12	Authority Elite	7	L	1.56	pt/a	PRE	A	0	97	99	0	99
LSD (P=.05)								1.5	4.6	2.8	7.0	2.1
CV								18.74	4.25	3.39	20.83	2.64

Means followed by same letter do not significantly differ (P=.05, LSD)