

MSU Weed Science Research Program

Chloroacetamide comparison in Roundup Ready sugarbeet

Trial ID: SB03-15  
 Conducted: SVREC

Study Dir.: Sprague and Powell  
 Investigator: Christy Sprague

**Date Planted:** May/19/2015      **Row Spacing:** 30 IN  
**Variety:** Cyrstal 059      **No. of Reps:** 4  
**Population:** 49,000 seeds/A      **% OM:** 3.0  
**Soil Type:** Clay loam      **pH:** 7.5  
**Plot Size:** 10 X 30 FT      **Design:** RANDOMIZED COMPLETE BLOCK

**Tillage:** Fall-moldboard plow; spring soil finish twice  
**Fertilizer:** 125 lbs actual N per acre applied as urea broadcast and incorporated on April 1, 2015

**Crop and Weed Description**

Weed	Code	Common Name	Scientific Name
1.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
2.	AMARE	PIGWEEED, REDROOT	AMARANTHUS RETROFLEXUS L.
3.	POLPY	SMARTWEED, PENNSYLVANIA	POLYGONUM PENNSYLVANICUM L.
4.	HIBTR	MALLOW, VENICE	HIBISCUS TRIONUM L.
Crop	Code	Common Name	
1.	BETVU	BEEET, SUGAR	

**Application Description**

	A	B	C	D
<b>Application Timing:</b>	PRE	2-LEAF	4 Leaf	6 Leaf
<b>Date Treated:</b>	Apr/15/2015	Jun/11/2015	Jun/17/2015	Jun/24/2015
<b>Time Treated:</b>	3:35 PM	2:30 PM	7:30 PM	11:20 AM
<b>% Cloud Cover:</b>	0	90	100	0
<b>Air Temp., Unit:</b>	65 F	85 F	73 F	73 F
<b>% Relative Humidity:</b>	25.5	34	63	45
<b>Wind Speed/Unit/Dir:</b>	7 mph	1 mph W	4 mph S	6 mph SW
<b>Soil Temp., Unit:</b>	50 F	74 F	78 F	69 F
<b>Soil/Leaf Surface M:</b>	5	5	5 5	5 5
<b>Soil Moist (1=w 5=d):</b>	3	4	3	4

**Crop Stage at Each Application**

	A	B	C	D
<b>Crop Name:</b>	BETVU	BETVU	BETVU	BETVU
<b>Height (In.):</b>	-	1"	3-4"	4-6"
<b>Stage (L):</b>	-	2	6	6

**Weed Stage at Each Application**

	A	B	C	D
<b>Weed 1 Name:</b>	CHEAL	CHEAL	CHEAL	CHEAL
<b>Height (In.):</b>	-	1"	0.5"	-
<b>Stage (L):</b>	-	4	4	-
<b>Weed 2 Name:</b>	AMARE	AMARE	AMARE	AMARE
<b>Height (In.):</b>	-	-	0.5-1"	-
<b>Stage (L):</b>	-	-	4-6	-
<b>Weed 3 Name:</b>	POLPY	POLPY	POLPY	POLPY
<b>Height (In.):</b>	-	1"	1-2"	-
<b>Stage (L):</b>	-	4	6	-
<b>Weed 4 Name:</b>	HIBTR	HIBTR	HIBTR	HIBTR
<b>Height (In.):</b>	-	-	-	-
<b>Stage (L):</b>	-	-	-	-

**Weed Density (plants/sq. ft.)**

	1	2	3	4
<b>Weed Name:</b>	CHEAL	AMARE	POLPY	HIBTR
<b>Density:</b>	8	3	<1	2

**Application Equipment**

Appl	Sprayer Type	Speed MPH	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	GPA	Carrier	PSI
A	Cub	3.8	AIXR	11003	20"	20"	100"	19	Water	28
B	Cub	3.8	AIXR	11003	25"	20"	100"	19	Water	28
C	Cub	3.8	AIXR	11003	25"	20"	100"	19	Water	28
D	Cub	3.8	AIXR	11003	26"	20"	100"	19	Water	28

**Comments:** Sugarbeetw were originally planted on April 15, 2015. Due to poor emergence sugarbeet were replanted on May 19, 2015.

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Weed Code								BETVU	CHEAL	POLPY	BETVU	CHEAL
Crop Code								injury	control	control	injury	control
Rating Data Type								percent	percent	percent	percent	percent
Rating Unit								Jun/17/2015	Jun/17/2015	Jun/17/2015	Jun/24/2015	Jun/24/2015
Rating Date								6 DA-B	6 DA-B	6 DA-B	7 DA-C	7 DA-C
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	Nortron	4	L	2.5	pt/a	PRE	A	1	99	99	0	94
1	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B					
1	AMS		WG	17	lb/100 gal	2-leaf	B					
1	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D					
1	AMS		WG	17	lb/100 gal	6-leaf	D					
2	Nortron	4	L	2.5	pt/a	PRE	A	3	99	99	0	95
2	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B					
2	Nortron	4	L	4	fl oz/a	2-leaf	B					
2	AMS		WG	17	lb/100 gal	2-leaf	B					
2	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D					
2	Nortron	4	L	4	fl oz/a	6-leaf	D					
2	AMS		WG	17	lb/100 gal	6-leaf	D					
3	Nortron	4	L	2.5	pt/a	PRE	A	3	99	99	4	96
3	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B					
3	Nortron	4	L	4	fl oz/a	2-leaf	B					
3	Warrant	3	L	3	pt/a	2-leaf	B					
3	AMS		WG	17	lb/100 gal	2-leaf	B					
4	Nortron	4	L	2.5	pt/a	PRE	A	4	99	99	15	99
4	Roundup PowerMax	4.5	SL	32	fl oz/a	4-leaf	C					
4	Nortron	4	L	4	fl oz/a	4-leaf	C					
4	Warrant	3	L	3	pt/a	4-leaf	C					
4	AMS		WG	17	lb/100 gal	4-leaf	C					
5	Nortron	4	L	2.5	pt/a	PRE	A	4	99	99	2	98
5	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B					
5	Nortron	4	L	4	fl oz/a	2-leaf	B					
5	Dual II Magnum	7.64	L	1.33	pt/a	2-leaf	B					
5	AMS		WG	17	lb/100 gal	2-leaf	B					
6	Nortron	4	L	2.5	pt/a	PRE	A	3	99	99	12	99
6	Roundup PowerMax	4.5	SL	32	fl oz/a	4-leaf	C					
6	Nortron	4	L	4	fl oz/a	4-leaf	C					
6	Dual II Magnum	7.64	L	1.33	pt/a	4-leaf	C					
6	AMS		WG	17	lb/100 gal	4-leaf	C					
7	Nortron	4	L	2.5	pt/a	PRE	A	11	99	99	5	99
7	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B					
7	Nortron	4	L	4	fl oz/a	2-leaf	B					
7	Outlook	6	L	16	fl oz/a	2-leaf	B					
7	AMS		WG	17	lb/100 gal	2-leaf	B					
8	Nortron	4	L	2.5	pt/a	PRE	A	2	99	99	13	99
8	Roundup PowerMax	4.5	SL	32	fl oz/a	4-leaf	C					
8	Nortron	4	L	4	fl oz/a	4-leaf	C					
8	Outlook	6	L	16	fl oz/a	4-leaf	C					
8	AMS		WG	17	lb/100 gal	4-leaf	C					
9	Nortron	4	L	2.5	pt/a	PRE	A	2	99	99	0	93
9	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B					
9	Nortron	4	L	4	fl oz/a	2-leaf	B					
9	Warrant	3	L	3	pt/a	2-leaf	B					
9	AMS		WG	17	lb/100 gal	2-leaf	B					
9	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D					
9	Nortron	4	L	4	fl oz/a	6-leaf	D					
9	Warrant	3	L	3	pt/a	6-leaf	D					
9	AMS		WG	17	lb/100 gal	6-leaf	D					

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								CHEAL		POLPY		CHEAL	
								BETVU	control	control	BETVU	control	
								injury	percent	percent	injury	percent	
								percent	percent	percent	percent	percent	
								Jun/17/2015	Jun/17/2015	Jun/17/2015	Jun/24/2015	Jun/24/2015	
								6 DA-B	6 DA-B	6 DA-B	7 DA-C	7 DA-C	
								0	0	0	0	0	
Trt	Treatment	Form	Form	Rate	Grow	Appl							
No.	Name	Conc	Type	Unit	Stg	Code							
10	Nortron	4	L	2.5	pt/a	PRE	A	4	99	99	2	98	
10	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B						
10	Nortron	4	L	4	fl oz/a	2-leaf	B						
10	Dual II Magnum	7.64	L	1.3	pt/a	2-leaf	B						
10	AMS		WG	17	lb/100 gal	2-leaf	B						
10	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D						
10	Nortron	4	L	4	fl oz/a	6-leaf	D						
10	Dual II Magnum	7.64	L	1.3	pt/a	6-leaf	D						
10	AMS		WG	17	lb/100 gal	6-leaf	D						
11	Nortron	4	L	2.5	pt/a	PRE	A	3	99	99	1	99	
11	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B						
11	Nortron	4	L	4	fl oz/a	2-leaf	B						
11	Outlook	6	L	12	fl oz/a	2-leaf	B						
11	AMS		WG	17	lb/100 gal	2-leaf	B						
11	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D						
11	Nortron	4	L	4	fl oz/a	6-leaf	D						
11	Outlook	6	L	12	fl oz/a	6-leaf	D						
11	AMS		WG	17	lb/100 gal	6-leaf	D						
12	Untreated							0	0	0	0	0	
LSD (P=.05)								5.5	0.0	0.0	4.2	3.1	
CV								114.15	0.0	0.0	66.18	2.39	

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

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								AMARE	HIBTR	BETVU	CHEAL	AMARE
								control	control	injury	control	control
								percent	percent	percent	percent	percent
								Jun/24/2015	Jun/24/2015	Jul/09/2015	Jul/09/2015	Jul/09/2015
								7 DA-C	7 DA-C	15 DA-D	15 DA-D	15 DA-D
								0	0	0	0	0
Trt	Treatment	Form	Form	Rate	Grow	Appl						
No.	Name	Conc	Type	Unit	Stg	Code						
1	Nortron	4	L	2.5	pt/a	PRE	A	99	99	0	98	99
1	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B					
1	AMS		WG	17	lb/100 gal	2-leaf	B					
1	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D					
1	AMS		WG	17	lb/100 gal	6-leaf	D					
2	Nortron	4	L	2.5	pt/a	PRE	A	99	99	3	99	99
2	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B					
2	Nortron	4	L	4	fl oz/a	2-leaf	B					
2	AMS		WG	17	lb/100 gal	2-leaf	B					
2	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D					
2	Nortron	4	L	4	fl oz/a	6-leaf	D					
2	AMS		WG	17	lb/100 gal	6-leaf	D					
3	Nortron	4	L	2.5	pt/a	PRE	A	99	99	3	85	99
3	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B					
3	Nortron	4	L	4	fl oz/a	2-leaf	B					
3	Warrant	3	L	3	pt/a	2-leaf	B					
3	AMS		WG	17	lb/100 gal	2-leaf	B					
4	Nortron	4	L	2.5	pt/a	PRE	A	99	99	13	99	99
4	Roundup PowerMax	4.5	SL	32	fl oz/a	4-leaf	C					
4	Nortron	4	L	4	fl oz/a	4-leaf	C					
4	Warrant	3	L	3	pt/a	4-leaf	C					
4	AMS		WG	17	lb/100 gal	4-leaf	C					
5	Nortron	4	L	2.5	pt/a	PRE	A	99	99	0	92	99
5	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B					
5	Nortron	4	L	4	fl oz/a	2-leaf	B					
5	Dual II Magnum	7.64	L	1.33	pt/a	2-leaf	B					
5	AMS		WG	17	lb/100 gal	2-leaf	B					
6	Nortron	4	L	2.5	pt/a	PRE	A	99	99	1	99	99
6	Roundup PowerMax	4.5	SL	32	fl oz/a	4-leaf	C					
6	Nortron	4	L	4	fl oz/a	4-leaf	C					
6	Dual II Magnum	7.64	L	1.33	pt/a	4-leaf	C					
6	AMS		WG	17	lb/100 gal	4-leaf	C					
7	Nortron	4	L	2.5	pt/a	PRE	A	99	99	2	94	99
7	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B					
7	Nortron	4	L	4	fl oz/a	2-leaf	B					
7	Outlook	6	L	16	fl oz/a	2-leaf	B					
7	AMS		WG	17	lb/100 gal	2-leaf	B					
8	Nortron	4	L	2.5	pt/a	PRE	A	99	99	3	99	99
8	Roundup PowerMax	4.5	SL	32	fl oz/a	4-leaf	C					
8	Nortron	4	L	4	fl oz/a	4-leaf	C					
8	Outlook	6	L	16	fl oz/a	4-leaf	C					
8	AMS		WG	17	lb/100 gal	4-leaf	C					
9	Nortron	4	L	2.5	pt/a	PRE	A	99	99	4	99	99
9	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B					
9	Nortron	4	L	4	fl oz/a	2-leaf	B					
9	Warrant	3	L	3	pt/a	2-leaf	B					
9	AMS		WG	17	lb/100 gal	2-leaf	B					
9	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D					
9	Nortron	4	L	4	fl oz/a	6-leaf	D					
9	Warrant	3	L	3	pt/a	6-leaf	D					
9	AMS		WG	17	lb/100 gal	6-leaf	D					

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Weed Code	AMARE	HIBTR	BETVU	CHEAL	AMARE
Crop Code					
Rating Data Type	control	control	injury	control	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jun/24/2015	Jun/24/2015	Jul/09/2015	Jul/09/2015	Jul/09/2015
Trt-Eval Interval	7 DA-C	7 DA-C	15 DA-D	15 DA-D	15 DA-D
# Subsamples, Dec.	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	AMARE	HIBTR	BETVU	CHEAL	AMARE
10	Nortron	4	L	2.5	pt/a	PRE	A	99	99	4	99	99
10	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B					
10	Nortron	4	L	4	fl oz/a	2-leaf	B					
10	Dual II Magnum	7.64	L	1.3	pt/a	2-leaf	B					
10	AMS		WG	17	lb/100 gal	2-leaf	B					
10	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D					
10	Nortron	4	L	4	fl oz/a	6-leaf	D					
10	Dual II Magnum	7.64	L	1.3	pt/a	6-leaf	D					
10	AMS		WG	17	lb/100 gal	6-leaf	D					
11	Nortron	4	L	2.5	pt/a	PRE	A	99	99	2	99	99
11	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B					
11	Nortron	4	L	4	fl oz/a	2-leaf	B					
11	Outlook	6	L	12	fl oz/a	2-leaf	B					
11	AMS		WG	17	lb/100 gal	2-leaf	B					
11	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D					
11	Nortron	4	L	4	fl oz/a	6-leaf	D					
11	Outlook	6	L	12	fl oz/a	6-leaf	D					
11	AMS		WG	17	lb/100 gal	6-leaf	D					
12	Untreated							0	0	0	0	0
LSD (P=.05)								0.0	0.0	4.8	6.1	0.0
CV								0.0	0.0	111.27	4.74	0.0

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

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								POLPY	BETVU	CHEAL	AMARE
								control	injury	control	control
								percent	percent	percent	percent
								Jul/09/2015	Aug/13/2015	Aug/13/2015	Aug/13/2015
								15 DA-D	50 DA-D	50 DA-D	50 DA-D
								0	0	0	0
Trt	Treatment	Form	Form	Rate	Grow	Appl					
No.	Name	Conc	Type	Unit	Stg	Code					
1	Nortron	4	L	2.5	pt/a	PRE	A	99	0	99	99
1	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B				
1	AMS		WG	17	lb/100 gal	2-leaf	B				
1	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D				
1	AMS		WG	17	lb/100 gal	6-leaf	D				
2	Nortron	4	L	2.5	pt/a	PRE	A	99	0	99	99
2	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B				
2	Nortron	4	L	4	fl oz/a	2-leaf	B				
2	AMS		WG	17	lb/100 gal	2-leaf	B				
2	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D				
2	Nortron	4	L	4	fl oz/a	6-leaf	D				
2	AMS		WG	17	lb/100 gal	6-leaf	D				
3	Nortron	4	L	2.5	pt/a	PRE	A	99	0	64	99
3	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B				
3	Nortron	4	L	4	fl oz/a	2-leaf	B				
3	Warrant	3	L	3	pt/a	2-leaf	B				
3	AMS		WG	17	lb/100 gal	2-leaf	B				
4	Nortron	4	L	2.5	pt/a	PRE	A	99	0	97	99
4	Roundup PowerMax	4.5	SL	32	fl oz/a	4-leaf	C				
4	Nortron	4	L	4	fl oz/a	4-leaf	C				
4	Warrant	3	L	3	pt/a	4-leaf	C				
4	AMS		WG	17	lb/100 gal	4-leaf	C				
5	Nortron	4	L	2.5	pt/a	PRE	A	99	0	81	99
5	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B				
5	Nortron	4	L	4	fl oz/a	2-leaf	B				
5	Dual II Magnum	7.64	L	1.33	pt/a	2-leaf	B				
5	AMS		WG	17	lb/100 gal	2-leaf	B				
6	Nortron	4	L	2.5	pt/a	PRE	A	99	0	99	99
6	Roundup PowerMax	4.5	SL	32	fl oz/a	4-leaf	C				
6	Nortron	4	L	4	fl oz/a	4-leaf	C				
6	Dual II Magnum	7.64	L	1.33	pt/a	4-leaf	C				
6	AMS		WG	17	lb/100 gal	4-leaf	C				
7	Nortron	4	L	2.5	pt/a	PRE	A	99	0	89	99
7	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B				
7	Nortron	4	L	4	fl oz/a	2-leaf	B				
7	Outlook	6	L	16	fl oz/a	2-leaf	B				
7	AMS		WG	17	lb/100 gal	2-leaf	B				
8	Nortron	4	L	2.5	pt/a	PRE	A	99	0	98	99
8	Roundup PowerMax	4.5	SL	32	fl oz/a	4-leaf	C				
8	Nortron	4	L	4	fl oz/a	4-leaf	C				
8	Outlook	6	L	16	fl oz/a	4-leaf	C				
8	AMS		WG	17	lb/100 gal	4-leaf	C				
9	Nortron	4	L	2.5	pt/a	PRE	A	99	0	99	99
9	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B				
9	Nortron	4	L	4	fl oz/a	2-leaf	B				
9	Warrant	3	L	3	pt/a	2-leaf	B				
9	AMS		WG	17	lb/100 gal	2-leaf	B				
9	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D				
9	Nortron	4	L	4	fl oz/a	6-leaf	D				
9	Warrant	3	L	3	pt/a	6-leaf	D				
9	AMS		WG	17	lb/100 gal	6-leaf	D				

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								POLPY	BETVU	CHEAL	AMARE
								control	injury	control	control
								percent	percent	percent	percent
								Jul/09/2015	Aug/13/2015	Aug/13/2015	Aug/13/2015
								15 DA-D	50 DA-D	50 DA-D	50 DA-D
								0	0	0	0
Trt	Treatment	Form	Form	Rate	Grow	Appl					
No.	Name	Conc	Type	Unit	Stg	Code					
10	Nortron	4	L	2.5	pt/a	PRE A	99	0	99	99	
10	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf B					
10	Nortron	4	L	4	fl oz/a	2-leaf B					
10	Dual II Magnum	7.64	L	1.3	pt/a	2-leaf B					
10	AMS		WG	17	lb/100 gal	2-leaf B					
10	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf D					
10	Nortron	4	L	4	fl oz/a	6-leaf D					
10	Dual II Magnum	7.64	L	1.3	pt/a	6-leaf D					
10	AMS		WG	17	lb/100 gal	6-leaf D					
11	Nortron	4	L	2.5	pt/a	PRE A	99	0	99	99	
11	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf B					
11	Nortron	4	L	4	fl oz/a	2-leaf B					
11	Outlook	6	L	12	fl oz/a	2-leaf B					
11	AMS		WG	17	lb/100 gal	2-leaf B					
11	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf D					
11	Nortron	4	L	4	fl oz/a	6-leaf D					
11	Outlook	6	L	12	fl oz/a	6-leaf D					
11	AMS		WG	17	lb/100 gal	6-leaf D					
12	Untreated						0	0	0	0	
LSD (P=.05)								0.4	0.0	8.6	0.0
CV								0.32	0.0	6.96	0.0

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

MSU Weed Science Research Program

Chloroacetamide comparison in Roundup Ready sugarbeet

Trial ID: SB03-15  
 Conducted: SVREC

Study Dir.: Sprague and Powell  
 Investigator: Christy Sprague

								POLPY	BETVU	CHEAL	AMARE
								control	injury	control	control
								percent	percent	percent	percent
								Aug/13/2015	Sep/15/2015	Sep/15/2015	Sep/15/2015
								50 DA-D	83 DA-D	83 DA-D	83 DA-D
								0	0	0	0
#	Subsamples, Dec.										
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Nortron	4	L	2.5	pt/a	PRE	A	99	0	99	99
1	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B				
1	AMS		WG	17	lb/100 gal	2-leaf	B				
1	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D				
1	AMS		WG	17	lb/100 gal	6-leaf	D				
2	Nortron	4	L	2.5	pt/a	PRE	A	99	0	98	99
2	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B				
2	Nortron	4	L	4	fl oz/a	2-leaf	B				
2	AMS		WG	17	lb/100 gal	2-leaf	B				
2	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D				
2	Nortron	4	L	4	fl oz/a	6-leaf	D				
2	AMS		WG	17	lb/100 gal	6-leaf	D				
3	Nortron	4	L	2.5	pt/a	PRE	A	99	0	70	99
3	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B				
3	Nortron	4	L	4	fl oz/a	2-leaf	B				
3	Warrant	3	L	3	pt/a	2-leaf	B				
3	AMS		WG	17	lb/100 gal	2-leaf	B				
4	Nortron	4	L	2.5	pt/a	PRE	A	99	0	94	99
4	Roundup PowerMax	4.5	SL	32	fl oz/a	4-leaf	C				
4	Nortron	4	L	4	fl oz/a	4-leaf	C				
4	Warrant	3	L	3	pt/a	4-leaf	C				
4	AMS		WG	17	lb/100 gal	4-leaf	C				
5	Nortron	4	L	2.5	pt/a	PRE	A	99	0	78	99
5	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B				
5	Nortron	4	L	4	fl oz/a	2-leaf	B				
5	Dual II Magnum	7.64	L	1.33	pt/a	2-leaf	B				
5	AMS		WG	17	lb/100 gal	2-leaf	B				
6	Nortron	4	L	2.5	pt/a	PRE	A	99	0	96	99
6	Roundup PowerMax	4.5	SL	32	fl oz/a	4-leaf	C				
6	Nortron	4	L	4	fl oz/a	4-leaf	C				
6	Dual II Magnum	7.64	L	1.33	pt/a	4-leaf	C				
6	AMS		WG	17	lb/100 gal	4-leaf	C				
7	Nortron	4	L	2.5	pt/a	PRE	A	99	0	89	99
7	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B				
7	Nortron	4	L	4	fl oz/a	2-leaf	B				
7	Outlook	6	L	16	fl oz/a	2-leaf	B				
7	AMS		WG	17	lb/100 gal	2-leaf	B				
8	Nortron	4	L	2.5	pt/a	PRE	A	99	0	95	99
8	Roundup PowerMax	4.5	SL	32	fl oz/a	4-leaf	C				
8	Nortron	4	L	4	fl oz/a	4-leaf	C				
8	Outlook	6	L	16	fl oz/a	4-leaf	C				
8	AMS		WG	17	lb/100 gal	4-leaf	C				
9	Nortron	4	L	2.5	pt/a	PRE	A	99	0	99	99
9	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B				
9	Nortron	4	L	4	fl oz/a	2-leaf	B				
9	Warrant	3	L	3	pt/a	2-leaf	B				
9	AMS		WG	17	lb/100 gal	2-leaf	B				
9	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D				
9	Nortron	4	L	4	fl oz/a	6-leaf	D				
9	Warrant	3	L	3	pt/a	6-leaf	D				
9	AMS		WG	17	lb/100 gal	6-leaf	D				



MSU Weed Science Research Program

Chloroacetamide comparison in Roundup Ready sugarbeet

Trial ID: SB03-15 Study Dir.: Sprague and Powell  
 Conducted: SVREC Investigator: Christy Sprague

								POLPY	BETVU	CHEAL	AMARE
								control	injury	control	control
								percent	percent	percent	percent
								Aug/13/2015	Sep/15/2015	Sep/15/2015	Sep/15/2015
								50 DA-D	83 DA-D	83 DA-D	83 DA-D
								0	0	0	0
Trt	Treatment	Form	Form	Rate	Grow	Appl					
No.	Name	Conc	Type	Unit	Stg	Code					
10	Nortron	4	L	2.5	pt/a	PRE A	99	0	99	99	
10	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf B					
10	Nortron	4	L	4	fl oz/a	2-leaf B					
10	Dual II Magnum	7.64	L	1.3	pt/a	2-leaf B					
10	AMS		WG	17	lb/100 gal	2-leaf B					
10	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf D					
10	Nortron	4	L	4	fl oz/a	6-leaf D					
10	Dual II Magnum	7.64	L	1.3	pt/a	6-leaf D					
10	AMS		WG	17	lb/100 gal	6-leaf D					
11	Nortron	4	L	2.5	pt/a	PRE A	99	0	99	99	
11	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf B					
11	Nortron	4	L	4	fl oz/a	2-leaf B					
11	Outlook	6	L	12	fl oz/a	2-leaf B					
11	AMS		WG	17	lb/100 gal	2-leaf B					
11	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf D					
11	Nortron	4	L	4	fl oz/a	6-leaf D					
11	Outlook	6	L	12	fl oz/a	6-leaf D					
11	AMS		WG	17	lb/100 gal	6-leaf D					
12	Untreated						0	0	0	0	
LSD (P=.05)								0.0	0.0	8.2	0.2
CV								0.0	0.0	6.71	0.16

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

MSU Weed Science Research Program

Chloroacetamide comparison in Roundup Ready sugarbeet

Trial ID: SB03-15  
 Conducted: SVREC

Study Dir.: Sprague and Powell  
 Investigator: Christy Sprague

Weed Code	POLPY	HIBTR
Crop Code		
Rating Data Type	control	control
Rating Unit	percent	percent
Rating Date	Sep/15/2015	Sep/15/2015
Trt-Eval Interval	83 DA-D	83 DA-D
# Subsamples, Dec.	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
1	Nortron	4	L	2.5	pt/a	PRE	A	99	99
1	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B		
1	AMS		WG	17	lb/100 gal	2-leaf	B		
1	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D		
1	AMS		WG	17	lb/100 gal	6-leaf	D		
2	Nortron	4	L	2.5	pt/a	PRE	A	99	99
2	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B		
2	Nortron	4	L	4	fl oz/a	2-leaf	B		
2	AMS		WG	17	lb/100 gal	2-leaf	B		
2	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D		
2	Nortron	4	L	4	fl oz/a	6-leaf	D		
2	AMS		WG	17	lb/100 gal	6-leaf	D		
3	Nortron	4	L	2.5	pt/a	PRE	A	97	85
3	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B		
3	Nortron	4	L	4	fl oz/a	2-leaf	B		
3	Warrant	3	L	3	pt/a	2-leaf	B		
3	AMS		WG	17	lb/100 gal	2-leaf	B		
4	Nortron	4	L	2.5	pt/a	PRE	A	99	93
4	Roundup PowerMax	4.5	SL	32	fl oz/a	4-leaf	C		
4	Nortron	4	L	4	fl oz/a	4-leaf	C		
4	Warrant	3	L	3	pt/a	4-leaf	C		
4	AMS		WG	17	lb/100 gal	4-leaf	C		
5	Nortron	4	L	2.5	pt/a	PRE	A	97	97
5	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B		
5	Nortron	4	L	4	fl oz/a	2-leaf	B		
5	Dual II Magnum	7.64	L	1.33	pt/a	2-leaf	B		
5	AMS		WG	17	lb/100 gal	2-leaf	B		
6	Nortron	4	L	2.5	pt/a	PRE	A	99	99
6	Roundup PowerMax	4.5	SL	32	fl oz/a	4-leaf	C		
6	Nortron	4	L	4	fl oz/a	4-leaf	C		
6	Dual II Magnum	7.64	L	1.33	pt/a	4-leaf	C		
6	AMS		WG	17	lb/100 gal	4-leaf	C		
7	Nortron	4	L	2.5	pt/a	PRE	A	99	99
7	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B		
7	Nortron	4	L	4	fl oz/a	2-leaf	B		
7	Outlook	6	L	16	fl oz/a	2-leaf	B		
7	AMS		WG	17	lb/100 gal	2-leaf	B		
8	Nortron	4	L	2.5	pt/a	PRE	A	99	99
8	Roundup PowerMax	4.5	SL	32	fl oz/a	4-leaf	C		
8	Nortron	4	L	4	fl oz/a	4-leaf	C		
8	Outlook	6	L	16	fl oz/a	4-leaf	C		
8	AMS		WG	17	lb/100 gal	4-leaf	C		
9	Nortron	4	L	2.5	pt/a	PRE	A	99	99
9	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B		
9	Nortron	4	L	4	fl oz/a	2-leaf	B		
9	Warrant	3	L	3	pt/a	2-leaf	B		
9	AMS		WG	17	lb/100 gal	2-leaf	B		
9	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D		
9	Nortron	4	L	4	fl oz/a	6-leaf	D		
9	Warrant	3	L	3	pt/a	6-leaf	D		
9	AMS		WG	17	lb/100 gal	6-leaf	D		

MSU Weed Science Research Program

Chloroacetamide comparison in Roundup Ready sugarbeet

Trial ID: SB03-15 Study Dir.: Sprague and Powell  
 Conducted: SVREC Investigator: Christy Sprague

Weed Code	POLPY	HIBTR
Crop Code		
Rating Data Type	control	control
Rating Unit	percent	percent
Rating Date	Sep/15/2015	Sep/15/2015
Trt-Eval Interval	83 DA-D	83 DA-D
# Subsamples, Dec.	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit	Grow Stg	Appl Code	POLPY	HIBTR
10	Nortron	4	L	2.5	pt/a	PRE	A	99	99
10	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B		
10	Nortron	4	L	4	fl oz/a	2-leaf	B		
10	Dual II Magnum	7.64	L	1.3	pt/a	2-leaf	B		
10	AMS		WG	17	lb/100 gal	2-leaf	B		
10	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D		
10	Nortron	4	L	4	fl oz/a	6-leaf	D		
10	Dual II Magnum	7.64	L	1.3	pt/a	6-leaf	D		
10	AMS		WG	17	lb/100 gal	6-leaf	D		
11	Nortron	4	L	2.5	pt/a	PRE	A	99	99
11	Roundup PowerMax	4.5	SL	32	fl oz/a	2-leaf	B		
11	Nortron	4	L	4	fl oz/a	2-leaf	B		
11	Outlook	6	L	12	fl oz/a	2-leaf	B		
11	AMS		WG	17	lb/100 gal	2-leaf	B		
11	Roundup PowerMax	4.5	SL	32	fl oz/a	6-leaf	D		
11	Nortron	4	L	4	fl oz/a	6-leaf	D		
11	Outlook	6	L	12	fl oz/a	6-leaf	D		
11	AMS		WG	17	lb/100 gal	6-leaf	D		
12	Untreated							0	0
LSD (P=.05)								2.7	8.7
CV								2.08	6.77

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