



MSU Weed Science Research Program

Adjuvants Plus, 2009

Trial ID: C2309  
Conducted: CAMPUS,BOX

Study Dir.: Andy Chomas  
Investigator: Wesley Everman

Weed Density (plants/sq. ft.)

1  
Date: 6/16/09  
Weed Name: ANGR  
Density: 50  
Date: 6/16/09  
Weed Name: CHEAL  
Density: 15  
Date: 6/16/09  
Weed Name: AMARE  
Density: 2  
Date: 6/16/09  
Weed Name: AMBEL  
Density: <1  
Date: 6/16/09  
Weed Name: ABUTH  
Density: 2

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom				
	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI	
A	CUB	3.5	FF	8003	28"	20"	100"	20	H2O	30	

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Weed Code						ANGR		CHEAL	AMARE	ABUTH			ANGR	CHEAL
Crop Code						ZEAMX					ZEAMX			
Rating Data Type						injury		control	control	control	injury		control	control
Rating Unit						percent		percent	percent	percent	percent		percent	percent
Rating Date						6/23/09		6/23/09	6/23/09	6/23/09	6/29/09		6/29/09	6/29/09
Trt-Eval Interval						8 DAPO		8 DAPO	8 DAPO	8 DAPO	14 DAPO		14 DAPO	14 DAPO
ARM Action Codes														
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	1	2	3	4	5	6	7	8
1	Non-Treated						0	0	0	0	0	0	0	0
2	Roundup PowerMAX	4.5	L	0.375	lb ae/a	POST	0	50	67	100	65	0	69	96
2	Marksman	3.2	L	1	pt/a	POST								
3	Roundup PowerMAX	4.5	L	0.75	lb ae/a	POST	0	91	97	100	92	0	95	100
3	Marksman	3.2	L	2	pt/a	POST								
4	Gly Acid	95	DF	0.375	lb ae/a	POST	0	90	98	100	93	0	96	100
4	ATR tech	97.2	DF	0.26	lb ae/a	POST								
4	DICAMBA tech	81.6	DF	0.14	lb ae/a	POST								
4	N-Go		L	1	% v/v	POST								
5	Gly Acid	95	DF	0.75	lb ae/a	POST	0	94	100	100	94	0	97	100
5	ATR tech	97.2	DF	0.52	lb ae/a	POST								
5	DICAMBA tech	81.6	DF	0.28	lb ae/a	POST								
5	N-Go		L	1	% v/v	POST								
6	Roundup PowerMAX	4.5	L	0.375	lb ae/a	POST	2	73	82	100	80	2	68	84
6	Banvel	4	L	0.14	lb ae/a	POST								
7	Roundup PowerMAX	4.5	L	0.75	lb ae/a	POST	0	89	97	100	86	0	96	98
7	Banvel	4	L	0.28	lb ae/a	POST								
8	Gly Acid	95	DF	0.375	lb ae/a	POST	0	91	98	100	92	0	97	100
8	DICAMBA tech	81.6	DF	0.14	lb ae/a	POST								
8	N-Go		L	1	% v/v	POST								
9	Gly Acid	95	DF	0.75	lb ae/a	POST	0	93	100	100	100	0	97	100
9	DICAMBA tech	81.6	DF	0.28	lb ae/a	POST								
9	N-Go		L	1	% v/v	POST								
10	N-Go		L	1	% v/v	POST	0	0	0	0	0	0	0	0
11	Roundup PowerMAX	4.5	L	0.375	lb ae/a	POST	0	75	78	76	75	0	88	93
11	Atrazine	4	L	0.26	lb ai/a	POST								
12	Roundup PowerMAX	4.5	L	0.75	lb ae/a	POST	2	91	100	100	88	0	96	100
12	Atrazine	4	L	0.52	lb ai/a	POST								
13	Gly Acid	95	DF	0.375	lb ae/a	POST	0	84	100	100	92	0	95	100
13	ATR tech	97.2	DF	0.26	lb ae/a	POST								
13	N-Go		L	1	% v/v	POST								
14	Gly Acid	95	DF	0.75	lb ae/a	POST	0	94	100	100	92	0	98	100
14	ATR tech	97.2	DF	0.52	lb ae/a	POST								
14	N-Go		L	1	% v/v	POST								
LSD (P=.05)							1.8	9.4	15.3	0.8	12.8	1.3	9.4	5.2
Standard Deviation							1.0	5.6	9.1	0.5	7.6	0.8	5.6	3.1
CV							440.28	7.75	11.47	0.55	10.15	648.07	7.17	3.67

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Weed Code							AMARE	ABUTH		ANGR	CHEAL	AMARE	ABUTH		
Crop Code									ZEAMX						ZEAMX
Rating Data Type							control	control	injury	control	control	control	control	control	injury
Rating Unit							percent	percent	percent	percent	percent	percent	percent	percent	percent
Rating Date							6/29/09	6/29/09	7/7/09	7/7/09	7/7/09	7/7/09	7/7/09	7/7/09	7/13/09
Trt-Eval Interval							14 DAPO	14 DAPO	22 DAPO	22 DAPO	22 DAPO	22 DAPO	22 DAPO	22 DAPO	28 DAPO
ARM Action Codes															
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	9	10	11	12	13	14	15	16	
1	Non-Treated						0	0	0	0	0	0	0	0	
2	Roundup PowerMAX	4.5	L	0.375	lb ae/a	POST	97	68	3	70	91	87	73	0	
2	Marksman	3.2	L	1	pt/a	POST									
3	Roundup PowerMAX	4.5	L	0.75	lb ae/a	POST	100	97	8	98	95	99	95	4	
3	Marksman	3.2	L	2	pt/a	POST									
4	Gly Acid	95	DF	0.375	lb ae/a	POST	98	95	0	95	93	92	86	1	
4	ATR tech	97.2	DF	0.26	lb ae/a	POST									
4	DICAMBA tech	81.6	DF	0.14	lb ae/a	POST									
4	N-Go		L	1	% v/v	POST									
5	Gly Acid	95	DF	0.75	lb ae/a	POST	100	100	8	97	99	99	99	2	
5	ATR tech	97.2	DF	0.52	lb ae/a	POST									
5	DICAMBA tech	81.6	DF	0.28	lb ae/a	POST									
5	N-Go		L	1	% v/v	POST									
6	Roundup PowerMAX	4.5	L	0.375	lb ae/a	POST	93	83	3	69	81	88	80	0	
6	Banvel	4	L	0.14	lb ae/a	POST									
7	Roundup PowerMAX	4.5	L	0.75	lb ae/a	POST	98	97	12	93	88	91	98	10	
7	Banvel	4	L	0.28	lb ae/a	POST									
8	Gly Acid	95	DF	0.375	lb ae/a	POST	98	97	3	97	92	87	92	1	
8	DICAMBA tech	81.6	DF	0.14	lb ae/a	POST									
8	N-Go		L	1	% v/v	POST									
9	Gly Acid	95	DF	0.75	lb ae/a	POST	100	97	13	95	92	90	92	8	
9	DICAMBA tech	81.6	DF	0.28	lb ae/a	POST									
9	N-Go		L	1	% v/v	POST									
10	N-Go		L	1	% v/v	POST	0	0	0	0	0	0	0	0	
11	Roundup PowerMAX	4.5	L	0.375	lb ae/a	POST	85	73	0	83	80	72	70	0	
11	Atrazine	4	L	0.26	lb ai/a	POST									
12	Roundup PowerMAX	4.5	L	0.75	lb ae/a	POST	100	89	0	94	97	98	93	0	
12	Atrazine	4	L	0.52	lb ai/a	POST									
13	Gly Acid	95	DF	0.375	lb ae/a	POST	100	97	2	94	94	98	93	0	
13	ATR tech	97.2	DF	0.26	lb ae/a	POST									
13	N-Go		L	1	% v/v	POST									
14	Gly Acid	95	DF	0.75	lb ae/a	POST	100	100	0	97	94	99	99	0	
14	ATR tech	97.2	DF	0.52	lb ae/a	POST									
14	N-Go		L	1	% v/v	POST									
LSD (P=.05)							4.8	9.5	5.5	6.1	7.8	10.5	11.4	3.3	
Standard Deviation							2.9	5.7	3.3	3.7	4.6	6.3	6.8	1.9	
CV							3.42	7.28	85.37	4.73	5.92	7.96	8.89	103.04	

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Weed Code							ANGR	CHEAL	AMARE	ABUTH		ANGR	CHEAL	AMARE	
Crop Code											ZEAMX				
Rating Data Type							control	control	control	control	injury	control	control	control	
Rating Unit							percent	percent	percent	percent	percent	percent	percent	percent	
Rating Date							7/13/09	7/13/09	7/13/09	7/13/09	7/28/09	7/28/09	7/28/09	7/28/09	
Trt-Eval Interval							28 DAPO	28 DAPO	28 DAPO	28 DAPO	43 DAPO	43 DAPO	43 DAPO	43 DAPO	
ARM Action Codes															
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	17	18	19	20	21	22	23	24	
1	Non-Treated						0	0	0	0	0	0	0	0	
2	Roundup PowerMAX	4.5	L	0.375	lb ae/a	POST	64	98	95	90	3	66	85	93	
2	Marksman	3.2	L	1	pt/a	POST									
3	Roundup PowerMAX	4.5	L	0.75	lb ae/a	POST	97	100	100	93	12	89	97	100	
3	Marksman	3.2	L	2	pt/a	POST									
4	Gly Acid	95	DF	0.375	lb ae/a	POST	94	97	94	98	2	84	91	93	
4	ATR tech	97.2	DF	0.26	lb ae/a	POST									
4	DICAMBA tech	81.6	DF	0.14	lb ae/a	POST									
4	N-Go		L	1	% v/v	POST									
5	Gly Acid	95	DF	0.75	lb ae/a	POST	96	100	99	98	3	87	97	98	
5	ATR tech	97.2	DF	0.52	lb ae/a	POST									
5	DICAMBA tech	81.6	DF	0.28	lb ae/a	POST									
5	N-Go		L	1	% v/v	POST									
6	Roundup PowerMAX	4.5	L	0.375	lb ae/a	POST	64	81	92	80	0	63	72	82	
6	Banvel	4	L	0.14	lb ae/a	POST									
7	Roundup PowerMAX	4.5	L	0.75	lb ae/a	POST	91	91	92	95	3	80	77	86	
7	Banvel	4	L	0.28	lb ae/a	POST									
8	Gly Acid	95	DF	0.375	lb ae/a	POST	94	88	87	93	3	80	79	87	
8	DICAMBA tech	81.6	DF	0.14	lb ae/a	POST									
8	N-Go		L	1	% v/v	POST									
9	Gly Acid	95	DF	0.75	lb ae/a	POST	91	89	85	92	12	79	82	80	
9	DICAMBA tech	81.6	DF	0.28	lb ae/a	POST									
9	N-Go		L	1	% v/v	POST									
10	N-Go		L	1	% v/v	POST	0	0	0	0	0	0	0	0	
11	Roundup PowerMAX	4.5	L	0.375	lb ae/a	POST	80	88	88	77	0	75	82	82	
11	Atrazine	4	L	0.26	lb ai/a	POST									
12	Roundup PowerMAX	4.5	L	0.75	lb ae/a	POST	88	98	100	93	0	80	95	100	
12	Atrazine	4	L	0.52	lb ai/a	POST									
13	Gly Acid	95	DF	0.375	lb ae/a	POST	93	93	100	97	5	77	81	100	
13	ATR tech	97.2	DF	0.26	lb ae/a	POST									
13	N-Go		L	1	% v/v	POST									
14	Gly Acid	95	DF	0.75	lb ae/a	POST	93	99	100	97	0	88	95	100	
14	ATR tech	97.2	DF	0.52	lb ae/a	POST									
14	N-Go		L	1	% v/v	POST									
LSD (P=.05)							5.5	8.7	10.9	10.8	8.1	5.2	10.2	15.0	
Standard Deviation							3.3	5.2	6.5	6.4	4.9	3.1	6.1	8.9	
CV							4.36	6.47	8.05	8.17	156.73	4.54	8.25	11.33	

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Weed Code ABUTH  
 Crop Code  
 Rating Data Type control  
 Rating Unit percent  
 Rating Date 7/28/09  
 Trt-Eval Interval 43 DAPO  
 ARM Action Codes

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	25
1	Non-Treated						0
2	Roundup PowerMAX	4.5	L	0.375	lb ae/a	POST	88
2	Marksman	3.2	L	1	pt/a	POST	
3	Roundup PowerMAX	4.5	L	0.75	lb ae/a	POST	93
3	Marksman	3.2	L	2	pt/a	POST	
4	Gly Acid	95	DF	0.375	lb ae/a	POST	86
4	ATR tech	97.2	DF	0.26	lb ae/a	POST	
4	DICAMBA tech	81.6	DF	0.14	lb ae/a	POST	
4	N-Go		L	1	% v/v	POST	
5	Gly Acid	95	DF	0.75	lb ae/a	POST	100
5	ATR tech	97.2	DF	0.52	lb ae/a	POST	
5	DICAMBA tech	81.6	DF	0.28	lb ae/a	POST	
5	N-Go		L	1	% v/v	POST	
6	Roundup PowerMAX	4.5	L	0.375	lb ae/a	POST	80
6	Banvel	4	L	0.14	lb ae/a	POST	
7	Roundup PowerMAX	4.5	L	0.75	lb ae/a	POST	87
7	Banvel	4	L	0.28	lb ae/a	POST	
8	Gly Acid	95	DF	0.375	lb ae/a	POST	91
8	DICAMBA tech	81.6	DF	0.14	lb ae/a	POST	
8	N-Go		L	1	% v/v	POST	
9	Gly Acid	95	DF	0.75	lb ae/a	POST	86
9	DICAMBA tech	81.6	DF	0.28	lb ae/a	POST	
9	N-Go		L	1	% v/v	POST	
10	N-Go		L	1	% v/v	POST	0
11	Roundup PowerMAX	4.5	L	0.375	lb ae/a	POST	83
11	Atrazine	4	L	0.26	lb ai/a	POST	
12	Roundup PowerMAX	4.5	L	0.75	lb ae/a	POST	95
12	Atrazine	4	L	0.52	lb ai/a	POST	
13	Gly Acid	95	DF	0.375	lb ae/a	POST	93
13	ATR tech	97.2	DF	0.26	lb ae/a	POST	
13	N-Go		L	1	% v/v	POST	
14	Gly Acid	95	DF	0.75	lb ae/a	POST	95
14	ATR tech	97.2	DF	0.52	lb ae/a	POST	
14	N-Go		L	1	% v/v	POST	
LSD (P=.05)							11.1
Standard Deviation							6.6
CV							8.56