

Metolachlor Utility in Roundup Ready Corn.

Project Code: 07-HRC-WU12-SE Location: Horticulture Research Center
 Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Carbondale IL 62901 USA
 Trial Status: Final Updated: 1-24-08

Objective:

Determine the efficacy of Parallel versus Dual II Magnum in Roundup Ready corn.

Weed Code	Common Name	Scientific Name
1. DIGSA	crabgrass, large	Digitaria sanguinalis (L.) Scop.
2. SETFA	foxtail, giant	Setaria faberi Herrm.
3. AMARE	pigweed, redroot	Amaranthus retroflexus L.
4. AMATA	waterhemp, common	Amaranthus rudis Sauer
5. IPOHE	morningglory, ivyleaf	Ipomoea hederacea (L.) Jacq.
6. IPOLA	morningglory, pitted	Ipomoea lacunosa L.

Crop 1: ZEAMX corn, field Variety: 33K44
 Planting Method: Seeded Planting Date: 5-24-07
 Rate: 28000 S/A Depth: 1.5 IN
 Row Spacing: 30 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 30 FT Reps: 4
 Tillage Type: Reduced-Till Study Design: Randomized complete block
 Previous Crop, Year: GLXMA, 2006
 Field Prep./Maintenance: N 166 LB/A, P205 92 LB/A, K20 90 LB/A

Texture: Silt loam % OM: 1.6 pH: 6.5 CEC: 8
 Fert. Level: P1: 47 LB/A, K: 265 LB/A

APPLICATION DESCRIPTION

	A	B	C
Application Date:	5-27-07	6-17-07	6-17-07
Time of Day:	10:00	8:00	8:00
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	3-4"W-1	3-4"W-2
Applic. Placement:	BROPOL	BROPOL	BROPOL
Air Temp., Unit:	79 F	79 F	79 F
% Relative Humidity:	62	73	73
Wind Velocity, Unit:	0-3 MPH	2-4 MPH	2-4 MPH
Dew Presence (Y/N):	N	N	N
Soil Temp., Unit:	72 F	80 F	80 F
Soil Moisture:	NORMAL	BELNOR	BELNOR
% Cloud Cover:	0	20	20

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	ZEAMX NA	ZEAMX V4	ZEAMX V4
Height, Unit:	NA NA	14-18 IN	14-18 IN

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code:		DIGSA	DIGSA
Stage(leaves):		4-6	4-6
Height(inches):		2-3	2-3
Density:		Low	Low
Weed 2 Code:		SETFA	SETFA
Stage(leaves):		4-5	4-5
Height(inches):		3-4	3-4
Density:		Low	Low
Weed 3 Code:		AMARE	AMARE
Stage(leaves):		4-12	4-12
Height(inches):		3-5	3-5
Density:		Low	Low
Weed 4 Code:		AMATA	AMATA
Stage(leaves):		4-12	4-12
Height(inches):		3-5	3-5
Density:		Low	Low
Weed 5 Code:		IPOSS	IPOSS
Stage(leaves):		2-6	2-6
Height(inches):		1-4	1-4
Density:		Medium	Medium

APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	40 PSI	40 PSI	40 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan
Nozzle Size:	XR 8002	XR 8002	XR 8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

NOTES:

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Weed Code
 Crop Code
 Rating Data Type
 Rating Unit
 Rating Date
 Trt-Eval Interval

ZEAMX ZEAMX ZEAMX ZEAMX ZEAMX ZEAMX
 Injury Injury Injury Injury Injury Injury
 Percent Percent Percent Percent Percent Percent
 6-18-07 7-3-07 7-16-07 7-30-07 8-12-07 9-10-07
 @ POST 2 WAPOST 4WAPOST 6WAPOST 8WAPOST 12WAPOST

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code						
1	PARALLEL	7.8	L	0.975	lb ai/a	1	pt/a	PRE	A	0 a	0 a	0 a	0 a	0 a	0 a
1	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C						
1	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C						
2	PARALLEL	7.8	L	1.46	lb ai/a	1.5	pt/a	PRE	A	0 a	0 a	0 a	0 a	0 a	0 a
2	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C						
2	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C						
3	PARALLEL	7.8	L	1.95	lb ai/a	2	pt/a	PRE	A	0 a	0 a	0 a	0 a	0 a	0 a
3	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C						
3	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C						
4	PARALLEL	7.8	L	0.975	lb ai/a	1	pt/a	3-4"W-1	B		0 a	0 a	0 a	0 a	0 a
4	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B						
4	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B						
5	PARALLEL	7.8	L	1.46	lb ai/a	1.5	pt/a	3-4"W-1	B		0 a	0 a	0 a	0 a	0 a
5	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B						
5	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B						
6	PARALLEL	7.8	L	1.95	lb ai/a	2	pt/a	3-4"W-1	B		0 a	0 a	0 a	0 a	0 a
6	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B						
6	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B						
7	DUAL II MAGNUM	7.64	EC	0.955	lb ai/a	1	pt/a	PRE	A	0 a	0 a	0 a	0 a	0 a	0 a
7	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C						
7	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C						
8	DUAL II MAGNUM	7.64	EC	1.43	lb ai/a	1.5	pt/a	PRE	A	0 a	0 a	0 a	0 a	0 a	0 a
8	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C						
8	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C						
9	DUAL II MAGNUM	7.64	EC	1.91	lb ai/a	2	pt/a	PRE	A	0 a	0 a	0 a	0 a	0 a	0 a
9	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C						
9	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C						
10	DUAL II MAGNUM	7.64	EC	0.955	lb ai/a	1	pt/a	3-4"W-1	B		0 a	0 a	0 a	0 a	0 a
10	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B						
10	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B						
11	DUAL II MAGNUM	7.64	EC	1.43	lb ai/a	1.5	pt/a	3-4"W-1	B		0 a	0 a	0 a	0 a	0 a
11	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B						
11	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B						
12	DUAL II MAGNUM	7.64	EC	1.91	lb ai/a	2	pt/a	3-4"W-1	B		0 a	0 a	0 a	0 a	0 a
12	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B						
12	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B						
13	NONTREATED									0 a	0 a	0 a	0 a	0 a	0 a
14	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B		0 a	0 a	0 a	0 a	0 a
14	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B						
LSD (P=.05)										0.0	0.0	0.0	0.0	0.0	0.0
Replicate F										0.000	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)										1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F										0.000	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)										1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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

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Weed Code	DIGSA	DIGSA	DIGSA	DIGSA	DIGSA	DIGSA
Crop Code						
Rating Data Type	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	6-18-07	7-3-07	7-16-07	7-30-07	8-12-07	9-10-07
Trt-Eval Interval	@ POST	2 WAPOST	4WAPOST	6WAPOST	8WAPOST	12WAPOST

Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code								
1	PARALLEL	7.8	L	0.975 lb ai/a	1	pt/a	PRE	A	90	b	99	a	99	a	99	a
1	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C								
1	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C								
2	PARALLEL	7.8	L	1.46 lb ai/a	1.5	pt/a	PRE	A	96	a	99	a	99	a	99	a
2	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C								
2	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C								
3	PARALLEL	7.8	L	1.95 lb ai/a	2	pt/a	PRE	A	99	a	99	a	99	a	99	a
3	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C								
3	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C								
4	PARALLEL	7.8	L	0.975 lb ai/a	1	pt/a	3-4"W-1	B			99	a	99	a	99	a
4	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B								
4	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B								
5	PARALLEL	7.8	L	1.46 lb ai/a	1.5	pt/a	3-4"W-1	B			99	a	99	a	99	a
5	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B								
5	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B								
6	PARALLEL	7.8	L	1.95 lb ai/a	2	pt/a	3-4"W-1	B			99	a	99	a	99	a
6	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B								
6	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B								
7	DUAL II MAGNUM	7.64	EC	0.955 lb ai/a	1	pt/a	PRE	A	95	ab	99	a	99	a	99	a
7	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C								
7	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C								
8	DUAL II MAGNUM	7.64	EC	1.43 lb ai/a	1.5	pt/a	PRE	A	94	ab	99	a	99	a	99	a
8	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C								
8	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C								
9	DUAL II MAGNUM	7.64	EC	1.91 lb ai/a	2	pt/a	PRE	A	98	a	99	a	99	a	99	a
9	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C								
9	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C								
10	DUAL II MAGNUM	7.64	EC	0.955 lb ai/a	1	pt/a	3-4"W-1	B			99	a	99	a	99	a
10	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B								
10	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B								
11	DUAL II MAGNUM	7.64	EC	1.43 lb ai/a	1.5	pt/a	3-4"W-1	B			99	a	99	a	99	a
11	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B								
11	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B								
12	DUAL II MAGNUM	7.64	EC	1.91 lb ai/a	2	pt/a	3-4"W-1	B			99	a	99	a	99	a
12	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B								
12	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B								
13	NONTREATED								0	c	0	b	0	b	0	b
14	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B			99	a	99	a	99	a
14	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B								
LSD (P=.05)									4.8		0.0		0.0		0.0	
Replicate F									7.154		0.000		0.000		0.000	
Replicate Prob(F)									0.0023		1.0000		1.0000		1.0000	
Treatment F									493.642		0.000		0.000		0.000	
Treatment Prob(F)									0.0001		1.0000		1.0000		1.0000	

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

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 Investigator: Bryan Young

Weed Code	SETFA	SETFA	SETFA	SETFA	SETFA	SETFA
Crop Code						
Rating Data Type	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	6-18-07	7-3-07	7-16-07	7-30-07	8-12-07	9-10-07
Trt-Eval Interval	@ POST	2 WAPOST	4WAPOST	6WAPOST	8WAPOST	12WAPOST

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code											
1	PARALLEL	7.8	L	0.975	lb ai/a	1	pt/a	PRE	A	95	b	99	a	99	a					
1	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C											
1	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C											
2	PARALLEL	7.8	L	1.46	lb ai/a	1.5	pt/a	PRE	A	99	a	99	a	99	a					
2	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C											
2	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C											
3	PARALLEL	7.8	L	1.95	lb ai/a	2	pt/a	PRE	A	99	a	99	a	99	a					
3	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C											
3	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C											
4	PARALLEL	7.8	L	0.975	lb ai/a	1	pt/a	3-4"W-1	B			99	a	99	a					
4	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B											
4	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B											
5	PARALLEL	7.8	L	1.46	lb ai/a	1.5	pt/a	3-4"W-1	B			99	a	99	a					
5	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B											
5	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B											
6	PARALLEL	7.8	L	1.95	lb ai/a	2	pt/a	3-4"W-1	B			99	a	99	a					
6	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B											
6	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B											
7	DUAL II MAGNUM	7.64	EC	0.955	lb ai/a	1	pt/a	PRE	A	97	ab	99	a	99	a					
7	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C											
7	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C											
8	DUAL II MAGNUM	7.64	EC	1.43	lb ai/a	1.5	pt/a	PRE	A	98	a	99	a	99	a					
8	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C											
8	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C											
9	DUAL II MAGNUM	7.64	EC	1.91	lb ai/a	2	pt/a	PRE	A	98	ab	99	a	99	a					
9	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C											
9	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C											
10	DUAL II MAGNUM	7.64	EC	0.955	lb ai/a	1	pt/a	3-4"W-1	B			99	a	99	a					
10	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B											
10	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B											
11	DUAL II MAGNUM	7.64	EC	1.43	lb ai/a	1.5	pt/a	3-4"W-1	B			99	a	99	a					
11	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B											
11	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B											
12	DUAL II MAGNUM	7.64	EC	1.91	lb ai/a	2	pt/a	3-4"W-1	B			99	a	99	a					
12	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B											
12	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B											
13	NONTREATED									0	c	0	b	0	c					
14	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B			99	a	96	b					
14	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B					91	b					
LSD (P=.05)										3.1		0.0		0.8		1.6		1.4		1.0
Replicate F										3.184		0.000		1.453		1.000		1.000		1.000
Replicate Prob(F)										0.0778		1.0000		0.2423		0.4031		0.4031		0.4031
Treatment F										1372.464		0.000		8953.095		2206.141		2869.893		6235.536
Treatment Prob(F)										0.0001		1.0000		0.0001		0.0001		0.0001		0.0001

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Crop Code						
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Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	6-18-07	7-3-07	7-16-07	7-30-07	8-12-07	9-10-07
Trt-Eval Interval	@ POST	2 WAPOST	4WAPOST	6WAPOST	8WAPOST	12WAPOST

Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code											
1	PARALLEL	7.8	L	0.975 lb ai/a	1	pt/a	PRE	A	83	b	99	a	97	bc	97	a			
1	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C											
1	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C											
2	PARALLEL	7.8	L	1.46 lb ai/a	1.5	pt/a	PRE	A	94	a	99	a	99	ab	99	a			
2	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C											
2	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C											
3	PARALLEL	7.8	L	1.95 lb ai/a	2	pt/a	PRE	A	99	a	99	a	99	a	99	a			
3	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C											
3	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C											
4	PARALLEL	7.8	L	0.975 lb ai/a	1	pt/a	3-4"W-1	B			99	a	99	a	98	a			
4	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B											
4	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B											
5	PARALLEL	7.8	L	1.46 lb ai/a	1.5	pt/a	3-4"W-1	B			99	a	99	a	99	a			
5	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B											
5	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B											
6	PARALLEL	7.8	L	1.95 lb ai/a	2	pt/a	3-4"W-1	B			99	a	99	a	99	a			
6	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B											
6	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B											
7	DUAL II MAGNUM	7.64	EC	0.955 lb ai/a	1	pt/a	PRE	A	95	a	99	a	99	a	99	a			
7	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C											
7	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C											
8	DUAL II MAGNUM	7.64	EC	1.43 lb ai/a	1.5	pt/a	PRE	A	97	a	99	a	99	a	99	a			
8	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C											
8	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C											
9	DUAL II MAGNUM	7.64	EC	1.91 lb ai/a	2	pt/a	PRE	A	98	a	99	a	99	a	99	a			
9	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C											
9	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C											
10	DUAL II MAGNUM	7.64	EC	0.955 lb ai/a	1	pt/a	3-4"W-1	B			99	a	99	a	99	a			
10	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B											
10	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B											
11	DUAL II MAGNUM	7.64	EC	1.43 lb ai/a	1.5	pt/a	3-4"W-1	B			99	a	99	a	99	a			
11	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B											
11	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B											
12	DUAL II MAGNUM	7.64	EC	1.91 lb ai/a	2	pt/a	3-4"W-1	B			99	a	99	a	99	a			
12	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B											
12	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B											
13	NONTREATED								0	c	0	b	0	d	0	c			
14	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B			99	a	95	c	91	b			
14	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B											
LSD (P=.05)									9.4		0.0		1.8		2.4		2.5		2.9
Replicate F									0.560		0.000		0.850		0.438		0.212		0.340
Replicate Prob(F)									0.6483		1.0000		0.4753		0.7269		0.8877		0.7965
Treatment F									128.160		0.000		1809.552		1018.258		918.915		649.628
Treatment Prob(F)									0.0001		1.0000		0.0001		0.0001		0.0001		0.0001

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

Metolachlor Utility in Roundup Ready Corn.

Project Code: 07-HRC-WU12-SE Location: Horticulture Research Center
 Investigator: Bryan Young

Weed Code	AMATA	AMATA	AMATA	AMATA	AMATA	AMATA
Crop Code						
Rating Data Type	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	6-18-07	7-3-07	7-16-07	7-30-07	8-12-07	9-10-07
Trt-Eval Interval	@ POST	2 WAPOST	4WAPOST	6WAPOST	8WAPOST	12WAPOST

Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	AMATA	AMATA	AMATA	AMATA	AMATA	AMATA
1	PARALLEL	7.8	L	0.975 lb ai/a	1	pt/a	PRE	A	83 b	99 a	96 c	95 bc	95 bc	95 bc
1	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C						
1	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C						
2	PARALLEL	7.8	L	1.46 lb ai/a	1.5	pt/a	PRE	A	96 a	99 a	96 bc	96 abc	97 abc	97 abc
2	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C						
2	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C						
3	PARALLEL	7.8	L	1.95 lb ai/a	2	pt/a	PRE	A	99 a	99 a	99 a	99 a	99 a	99 a
3	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C						
3	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C						
4	PARALLEL	7.8	L	0.975 lb ai/a	1	pt/a	3-4"W-1	B		99 a	97 abc	95 c	95 c	94 c
4	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B						
4	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B						
5	PARALLEL	7.8	L	1.46 lb ai/a	1.5	pt/a	3-4"W-1	B		99 a	99 a	98 ab	99 a	99 a
5	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B						
5	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B						
6	PARALLEL	7.8	L	1.95 lb ai/a	2	pt/a	3-4"W-1	B		99 a	99 a	99 a	99 a	99 a
6	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B						
6	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B						
7	DUAL II MAGNUM	7.64	EC	0.955 lb ai/a	1	pt/a	PRE	A	98 a	99 a	97 abc	97 abc	97 abc	98 ab
7	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C						
7	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C						
8	DUAL II MAGNUM	7.64	EC	1.43 lb ai/a	1.5	pt/a	PRE	A	98 a	99 a	98 abc	97 abc	97 abc	98 ab
8	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C						
8	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C						
9	DUAL II MAGNUM	7.64	EC	1.91 lb ai/a	2	pt/a	PRE	A	98 a	99 a	98 abc	98 ab	99 a	99 a
9	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-2	C						
9	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-2	C						
10	DUAL II MAGNUM	7.64	EC	0.955 lb ai/a	1	pt/a	3-4"W-1	B		99 a	98 ab	98 ab	98 ab	98 ab
10	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B						
10	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B						
11	DUAL II MAGNUM	7.64	EC	1.43 lb ai/a	1.5	pt/a	3-4"W-1	B		99 a	99 a	99 a	99 a	99 a
11	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B						
11	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B						
12	DUAL II MAGNUM	7.64	EC	1.91 lb ai/a	2	pt/a	3-4"W-1	B		99 a	99 a	99 a	99 a	99 a
12	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B						
12	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B						
13	NONTREATED								0 c	0 b	0 e	0 e	0 e	0 e
14	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	3-4"W-1	B		99 a	87 d	85 d	88 d	85 d
14	N-PAK AMS	100	LIQ	5.0 % v/v	5	% v/v	3-4"W-1	B						
LSD (P=.05)									7.3	0.0	2.3	3.2	3.2	3.4
Replicate F									1.015	0.000	1.924	1.119	0.804	0.759
Replicate Prob(F)									0.4091	1.0000	0.1416	0.3531	0.4993	0.5238
Treatment F									220.976	0.000	1033.449	547.321	540.416	469.805
Treatment Prob(F)									0.0001	1.0000	0.0001	0.0001	0.0001	0.0001

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

Metolachlor Utility in Roundup Ready Corn.

Project Code: 07-HRC-WU12-SE Location: Horticulture Research Center
 Investigator: Bryan Young

Weed Code	IPOSS	IPOSS	IPOSS	IPOSS	IPOSS	IPOSS
Crop Code	Control	Control	Control	Control	Control	Control
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit	6-18-07	7-3-07	7-16-07	7-30-07	8-12-07	9-10-07
Rating Date	@ POST	2 WAPOST	4WAPOST	6WAPOST	8WAPOST	12WAPOST
Trt-Eval Interval						

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code												
1	PARALLEL	7.8	L	0.975	lb ai/a	1	pt/a	PRE	A	0	b	90	ab	88	abc	85	ab	83	bc	82	bcd
1	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C												
1	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C												
2	PARALLEL	7.8	L	1.46	lb ai/a	1.5	pt/a	PRE	A	3	ab	90	ab	87	abc	85	ab	84	abc	82	bcd
2	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C												
2	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C												
3	PARALLEL	7.8	L	1.95	lb ai/a	2	pt/a	PRE	A	10	a	89	bc	88	abc	85	ab	85	abc	83	bcd
3	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C												
3	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C												
4	PARALLEL	7.8	L	0.975	lb ai/a	1	pt/a	3-4"W-1	B			86	cd	84	c	82	b	79	c	78	d
4	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B												
4	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B												
5	PARALLEL	7.8	L	1.46	lb ai/a	1.5	pt/a	3-4"W-1	B			86	cd	88	abc	85	ab	84	abc	82	bcd
5	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B												
5	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B												
6	PARALLEL	7.8	L	1.95	lb ai/a	2	pt/a	3-4"W-1	B			89	bc	91	ab	86	ab	88	ab	88	ab
6	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B												
6	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B												
7	DUAL II MAGNUM	7.64	EC	0.955	lb ai/a	1	pt/a	PRE	A	0	b	89	bc	89	abc	85	ab	84	abc	84	bcd
7	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C												
7	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C												
8	DUAL II MAGNUM	7.64	EC	1.43	lb ai/a	1.5	pt/a	PRE	A	0	b	90	ab	93	a	90	a	87	ab	86	abc
8	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C												
8	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C												
9	DUAL II MAGNUM	7.64	EC	1.91	lb ai/a	2	pt/a	PRE	A	10	a	93	a	91	ab	90	a	90	a	92	a
9	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-2	C												
9	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-2	C												
10	DUAL II MAGNUM	7.64	EC	0.955	lb ai/a	1	pt/a	3-4"W-1	B			90	ab	89	abc	85	ab	83	bc	81	cd
10	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B												
10	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B												
11	DUAL II MAGNUM	7.64	EC	1.43	lb ai/a	1.5	pt/a	3-4"W-1	B			90	ab	87	bc	83	b	83	bc	81	cd
11	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B												
11	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B												
12	DUAL II MAGNUM	7.64	EC	1.91	lb ai/a	2	pt/a	3-4"W-1	B			90	ab	89	abc	85	ab	86	ab	87	abc
12	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B												
12	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B												
13	NONTREATED									0	b	0	e	0	d	0	d	0	e	0	f
14	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"W-1	B			85	d	84	c	75	c	70	d	70	e
14	N-PAK AMS	100	LIQ	5.0	% v/v	5	% v/v	3-4"W-1	B												
LSD (P=.05)										9.6		3.2		6.1		5.8		6.5		6.4	
Replicate F										1.000		4.508		3.423		3.591		3.120		4.287	
Replicate Prob(F)										0.4155		0.0083		0.0264		0.0220		0.0368		0.0104	
Treatment F										2.143		444.705		124.867		127.708		101.134		101.105	
Treatment Prob(F)										0.0982		0.0001		0.0001		0.0001		0.0001		0.0001	

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

Trial Comments

1. Protocol: MANA.
2. Ratings: CI/WC prior to POST and 2, 4, 6, 8 + 12 wa B + C.
3. No yield data necessary.
4. @ POST = At postemergence application. WAPOST = Weeks after postemergence application.
5. IPOSS was IPOHE (ivyleaf morningglory) and IPOLA (pitted morningglory).
6. Not harvested.