

Comparison of Application Timings of Mesotrione and Glyphosate Based Products.

Project Code: 05-6A-W190 Location: Belleville Research Center
Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
Trial Status: Final Updated: 11-14-05

Objective:

Compare Syngenta corn herbicide programs and application timings for weed control and yield.

Weed Code	Common Name	Scientific Name
1.	SETFA foxtail, giant	Setaria faberi Herrm.
2.	XANST cocklebur, common	Xanthium strumarium L.
3.	AMATA waterhemp, common	Amaranthus rudis Sauer

Crop 1: ZEAMX corn, field Variety: DKC 60-17 RR
Planting Method: Seeded Planting Date: 5-5-05
Rate: 28000 S/A Depth: 1.5 IN
Row Spacing: 30 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 25 FT Reps: 4
Tillage Type: Reduced-Till Study Design: Randomized complete block
Previous Crop, Year: GLXMA, 2004

Field Prep./Maintenance: N 150 LB/A, P205 0 LB/A, K20 100 LB/A

Soil Name: Stoy % OM: 1.6 pH: 6.3 CEC: 7
Texture: Silt loam Fert. Level: P1: 105 LB/A, K: 448 LB/A

APPLICATION DESCRIPTION

	A	B	C	D	E	F
Application Date:	05-06-05	05-19-05	05-25-05	05-31-05	06-13-05	06-15-05
Time of Day:	12:00	9:30	10:00	9:30	9:30	
Application Method:	Spray	Spray	Spray	Spray	Spray	Spray
Application Timing:	PRE	1-2"W	3-5"W-1	6-8"W	3-5"W-2	See comment
Applic. Placement:	BROSOI	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	75 F	78 F	67 F	72 F	74 F	
% Relative Humidity:	30	62	51	50	96	
Wind Velocity, Unit:	5 MPH	8 MPH	7-9 MPH	5 MPH	5 MPH	
Soil Moisture:	NORMAL	NORMAL	NORMAL	BELNOR	ABONOR	

CROP STAGE AT EACH APPLICATION

	A	B	C	D	E	F
Crop 1 Code, Stage:	ZEAMX NA	ZEAMX V2	ZEAMX V3	ZEAMX V4	ZEAMX V7	ZEAMX V7
Height, Unit:	NA NA	4-6 IN	6-7 IN	10-12 IN	21 IN	21 IN

WEED STAGE AT EACH APPLICATION

	A	B	C	D	E	F
Weed 1 Code:	SETFA	SETFA	SETFA	SETFA	SETFA	SETFA
Stage (leaves):	3-4	5-6	5-7	4-6	10+	
Height (inches):	1-3	4-6	6-10	2-5	18-24	
Density:	High	High	High	Low	High	
Weed 2 Code:	XANST	XANST	XANST	XANST	XANST	
Stage (leaves):	2-4	2-6	4-8	3-5		
Height (inches):	1-3	1-4	8-10	2-4		
Density:	High	Medium	Low	Low		
Weed 3 Code:	AMATA	AMATA	AMATA	AMATA		
Stage (leaves):	2-5	4-6	5-10	2-5		
Height (inches):	1-2	1-3	4-8	1-2		
Density:	Medium	Medium	Medium	Low		

APPLICATION EQUIPMENT

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

NOTES:

Comparison of Application Timings of Mesotrione and Glyphosate Based Products.

Project Code: 05-6A-W190
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Weed Code
Crop Code
Rating Data Type
Rating Unit
Rating Date
Trt-Eval IntervalZEAMX ZEAMX ZEAMX ZEAMX ZEAMX
Yield Injury Injury Injury Injury
bu/A Percent Percent Percent Percent
10-12-05 05-19-05 05-31-05 06-07-05 06-14-05
0 DA-B 0 DA-D 7 DA-D 14 DA-D

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	ZEAMX Yield bu/A	ZEAMX Injury Percent	ZEAMX Injury Percent	ZEAMX Injury Percent	ZEAMX Injury Percent
1	LUMAX	3.94	L	2.46	lb ai/a	2.5	qt/a	PRE	A	45	0	0	0	0
2	LUMAX	3.94	L	2.46	lb ai/a	2.5	qt/a	PRE	A	82	0	0	0	0
2	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A					
3	LEXAR	3.7	L	2.78	lb ai/a	3	qt/a	PRE	A	59	0	0	0	0
4	LEXAR	3.7	L	2.78	lb ai/a	3	qt/a	PRE	A	90	0	0	0	0
4	PRINCEP	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A					
5	CAMIX	3.67	EC	1.47	lb ai/a	1.6	qt/a	1-2"W	B	138		6	2	0
5	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	1-2"W	B					
5	AMS	100	DRY	2.5	lb/a	2.5	lb/a	1-2"W	B					
6	LUMAX	3.94	L	1.97	lb ai/a	2	qt/a	1-2"W	B	105		0	0	0
6	AMS	100	DRY	2.5	lb/a	2.5	lb/a	1-2"W	B					
6	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	See comment	F					
6	AMS	100	DRY	2.5	lb/a	2.5	lb/a	See comment	F					
6	SEE COMMENT #7													
7	LEXAR	3.7	L	2.1	lb ai/a	2.26	qt/a	1-2"W	B	120		7	3	0
7	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	1-2"W	B					
7	AMS	100	DRY	2.5	lb/a	2.5	lb/a	1-2"W	B					
8	CAMIX	3.67	EC	1.47	lb ai/a	1.6	qt/a	PRE	A	124	0	0	0	0
8	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	3-5"W-1	C					
8	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C					
9	LUMAX	3.94	L	1.97	lb ai/a	2	qt/a	PRE	A	132	0	0	0	0
9	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	3-5"W-1	C					
9	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C					
10	LEXAR	3.7	L	2.1	lb ai/a	2.26	qt/a	PRE	A	81	0	0	0	0
10	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	3-5"W-1	C					
10	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C					
11	DUAL II MAGNUM	7.64	EC	1.27	lb ai/a	1.33	pt/a	PRE	A	73	0	1	1	0
11	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	3-5"W-1	C					
11	AATREX	90	WG	0.5	lb ai/a	0.556	lb/a	3-5"W-1	C					
11	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	3-5"W-1	C					
11	28% UAN	100	LIQ	2.5	% v/v	2.5	% v/v	3-5"W-1	C					
12	BICEP II MAGNUM	5.5	L	2.9	lb ai/a	2.1	qt/a	PRE	A	103	0	0	0	0
12	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	3-5"W-1	C					
12	AATREX	90	WG	0.5	lb ai/a	0.556	lb/a	3-5"W-1	C					
12	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	3-5"W-1	C					
12	28% UAN	100	LIQ	2.5	% v/v	2.5	% v/v	3-5"W-1	C					
13	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	1-2"W	B	55		0	0	0
13	AMS	100	DRY	2.5	lb/a	2.5	lb/a	1-2"W	B					
14	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W-1	C	132		0	0	0
14	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C					
15	ROUNDUP W-MAX	4.5	SL	1.12	lb ae/a	32	fl oz/a	6-8"W	D	66		0	0	0
15	AMS	100	DRY	2.5	lb/a	2.5	lb/a	6-8"W	D					
16	HARNESS XTRA	5.6	L	2.1	lb ai/a	1.5	qt/a	PRE	A	119	0	0	0	0
16	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W-1	C					
16	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C					
17	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W-1	C	116		0	0	0
17	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C					
17	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W-2	E					
17	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-2	E					
18	NONTREATED									0	0	0	0	0
19	LEXAR	3.7	L	1.62	lb ai/a	1.75	qt/a	PRE	A	85	2	2	1	0
19	PRINCEP	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A					
19	LEXAR	3.7	L	1.62	lb ai/a	1.75	qt/a	1-2"W	B					
19	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	1-2"W	B					

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 Rating Data Type
 Rating Unit
 Rating Date
 Trt-Eval Interval

ZEAMX Yield bu/A 10-12-05
 ZEAMX Injury Percent 05-19-05 0 DA-B
 ZEAMX Injury Percent 05-31-05 0 DA-D
 ZEAMX Injury Percent 06-07-05 7 DA-D
 ZEAMX Injury Percent 06-14-05 14 DA-D

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	ZEAMX Yield	ZEAMX Injury	ZEAMX Injury	ZEAMX Injury	ZEAMX Injury
20	BICEP II MAGNUM	5.5	L	2.4	lb ai/a	1.75	qt/a	PRE	A	118	0	0	0	0
20	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	3-5"W-1	C					
20	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C					
21	KEYSTONE	5.25	L	3.4	lb ai/a	2.6	qt/a	PRE	A	125	0	0	0	0
21	HORNET	68.5	WG	0.171	lb ai/a	4	oz/a	PRE	A					
22	DEFINE	4	SC	0.56	lb ai/a	18	fl oz/a	PRE	A	108	0	0	0	0
22	BALANCE PRO	4	SC	0.067	lb ai/a	2.14	fl oz/a	PRE	A					
22	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A					
23	GUARDSMAN MAX	5	L	2.5	lb ai/a	2	qt/a	PRE	A	113	0	0	1	0
23	BALANCE PRO	4	SC	0.07	lb ai/a	2.25	fl oz/a	PRE	A					
LSD (P=.05)										47.4	0.2	0.9	0.7	0.0
Replicate F										2.608	1.000	0.941	4.096	0.000
Replicate Prob(F)										0.0590	0.4016	0.4260	0.0100	1.0000
Treatment F										4.125	81.000	33.493	8.577	0.000
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	1.0000

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	SETFA	SETFA	SETFA	XANST	XANST	XANST				
						Control Percent 06-14-05 14 DA-D	Control Percent 07-06-05 Tassel	Control Percent 10-12-05 EOS	Control Percent 06-14-05 14 DA-D	Control Percent 07-06-05 Tassel	Control Percent 10-12-05 EOS				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code						
1	LUMAX	3.94	L	2.46	lb ai/a	2.5	qt/a	PRE	A	41	18	0	65	44	16
2	LUMAX	3.94	L	2.46	lb ai/a	2.5	qt/a	PRE	A	63	45	35	71	65	51
2	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A						
3	LEXAR	3.7	L	2.78	lb ai/a	3	qt/a	PRE	A	38	49	24	60	55	55
4	LEXAR	3.7	L	2.78	lb ai/a	3	qt/a	PRE	A	49	38	31	72	60	60
4	PRINCEP	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A						
5	CAMIX	3.67	EC	1.47	lb ai/a	1.6	qt/a	1-2"W	B	97	98	98	97	97	97
5	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	1-2"W	B						
5	AMS	100	DRY	2.5	lb/a	2.5	lb/a	1-2"W	B						
6	LUMAX	3.94	L	1.97	lb ai/a	2	qt/a	1-2"W	B	23	98	98	91	99	99
6	AMS	100	DRY	2.5	lb/a	2.5	lb/a	1-2"W	B						
6	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	See comment	F						
6	AMS	100	DRY	2.5	lb/a	2.5	lb/a	See comment	F						
6	SEE COMMENT #7														
7	LEXAR	3.7	L	2.1	lb ai/a	2.26	qt/a	1-2"W	B	96	98	98	97	97	97
7	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	1-2"W	B						
7	AMS	100	DRY	2.5	lb/a	2.5	lb/a	1-2"W	B						
8	CAMIX	3.67	EC	1.47	lb ai/a	1.6	qt/a	PRE	A	98	98	98	95	96	95
8	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	3-5"W-1	C						
8	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C						
9	LUMAX	3.94	L	1.97	lb ai/a	2	qt/a	PRE	A	99	98	97	96	97	93
9	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	3-5"W-1	C						
9	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C						
10	LEXAR	3.7	L	2.1	lb ai/a	2.26	qt/a	PRE	A	89	85	73	95	97	95
10	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	3-5"W-1	C						
10	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C						
11	DUAL II MAGNUM	7.64	EC	1.27	lb ai/a	1.33	pt/a	PRE	A	38	30	13	99	99	99
11	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	3-5"W-1	C						
11	AATREX	90	WG	0.5	lb ai/a	0.556	lb/a	3-5"W-1	C						
11	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	3-5"W-1	C						
11	28% UAN	100	LIQ	2.5	% v/v	2.5	% v/v	3-5"W-1	C						
12	BICEP II MAGNUM	5.5	L	2.9	lb ai/a	2.1	qt/a	PRE	A	81	77	77	98	98	98
12	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	3-5"W-1	C						
12	AATREX	90	WG	0.5	lb ai/a	0.556	lb/a	3-5"W-1	C						
12	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	3-5"W-1	C						
12	28% UAN	100	LIQ	2.5	% v/v	2.5	% v/v	3-5"W-1	C						
13	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	1-2"W	B	41	45	26	63	46	26
13	AMS	100	DRY	2.5	lb/a	2.5	lb/a	1-2"W	B						
14	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W-1	C	96	96	96	96	97	97
14	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C						
15	ROUNDUP W-MAX	4.5	SL	1.12	lb ae/a	32	fl oz/a	6-8"W	D	99	99	99	99	98	98
15	AMS	100	DRY	2.5	lb/a	2.5	lb/a	6-8"W	D						
16	HARNESX XTRA	5.6	L	2.1	lb ai/a	1.5	qt/a	PRE	A	99	99	99	95	95	95
16	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W-1	C						
16	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C						
17	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W-1	C	97	99	99	96	99	99
17	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C						
17	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W-2	E						
17	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-2	E						
18	NONTREATED									0	0	0	0	0	0
19	LEXAR	3.7	L	1.62	lb ai/a	1.75	qt/a	PRE	A	74	75	59	98	99	97
19	PRINCEP	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A						
19	LEXAR	3.7	L	1.62	lb ai/a	1.75	qt/a	1-2"W	B						
19	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	1-2"W	B						

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	SETFA	SETFA	SETFA	XANST	XANST	XANST				
						Control Percent 06-14-05 14 DA-D	Control Percent 07-06-05 Tassel	Control Percent 10-12-05 EOS	Control Percent 06-14-05 14 DA-D	Control Percent 07-06-05 Tassel	Control Percent 10-12-05 EOS				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code						
20	BICEP II MAGNUM	5.5	L	2.4	lb ai/a	1.75	qt/a	PRE	A	99	99	99			
20	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	3-5"W-1	C						
20	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C						
21	KEYSTONE	5.25	L	3.4	lb ai/a	2.6	qt/a	PRE	A	86	85	84			
21	HORNET	68.5	WG	0.171	lb ai/a	4	oz/a	PRE	A						
22	DEFINE	4	SC	0.56	lb ai/a	18	fl oz/a	PRE	A	79	77	77			
22	BALANCE PRO	4	SC	0.067	lb ai/a	2.14	fl oz/a	PRE	A						
22	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A						
23	GUARDSMAN MAX	5	L	2.5	lb ai/a	2	qt/a	PRE	A	86	84	84			
23	BALANCE PRO	4	SC	0.07	lb ai/a	2.25	fl oz/a	PRE	A						
LSD (P=.05)										16.8	15.1	26.5	14.4	17.3	22.6
Replicate F										0.830	0.726	2.255	0.584	0.941	0.580
Replicate Prob(F)										0.4819	0.5401	0.0901	0.6279	0.4258	0.6305
Treatment F										24.823	32.559	14.644	19.378	17.883	14.092
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	AMATA	AMATA	AMATA				
						Control Percent 06-14-05 14 DA-D	Control Percent 07-06-05 Tassel	Control Percent 10-12-05 EOS				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code			
1	LUMAX	3.94	L	2.46	lb ai/a	2.5	qt/a	PRE	A	99	95	46
2	LUMAX	3.94	L	2.46	lb ai/a	2.5	qt/a	PRE	A	99	99	99
2	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A			
3	LEXAR	3.7	L	2.78	lb ai/a	3	qt/a	PRE	A	97	99	99
4	LEXAR	3.7	L	2.78	lb ai/a	3	qt/a	PRE	A	99	98	98
4	PRINCEP	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A			
5	CAMIX	3.67	EC	1.47	lb ai/a	1.6	qt/a	1-2"W	B	99	99	99
5	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	1-2"W	B			
5	AMS	100	DRY	2.5	lb/a	2.5	lb/a	1-2"W	B			
6	LUMAX	3.94	L	1.97	lb ai/a	2	qt/a	1-2"W	B	99	99	99
6	AMS	100	DRY	2.5	lb/a	2.5	lb/a	1-2"W	B			
6	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	See comment	F			
6	AMS	100	DRY	2.5	lb/a	2.5	lb/a	See comment	F			
6	SEE COMMENT #7											
7	LEXAR	3.7	L	2.1	lb ai/a	2.26	qt/a	1-2"W	B	99	99	99
7	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	1-2"W	B			
7	AMS	100	DRY	2.5	lb/a	2.5	lb/a	1-2"W	B			
8	CAMIX	3.67	EC	1.47	lb ai/a	1.6	qt/a	PRE	A	99	99	99
8	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	3-5"W-1	C			
8	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C			
9	LUMAX	3.94	L	1.97	lb ai/a	2	qt/a	PRE	A	99	99	99
9	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	3-5"W-1	C			
9	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C			
10	LEXAR	3.7	L	2.1	lb ai/a	2.26	qt/a	PRE	A	99	99	99
10	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	3-5"W-1	C			
10	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C			
11	DUAL II MAGNUM	7.64	EC	1.27	lb ai/a	1.33	pt/a	PRE	A	99	99	99
11	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	3-5"W-1	C			
11	AATREX	90	WG	0.5	lb ai/a	0.556	lb/a	3-5"W-1	C			
11	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	3-5"W-1	C			
11	28% UAN	100	LIQ	2.5	% v/v	2.5	% v/v	3-5"W-1	C			
12	BICEP II MAGNUM	5.5	L	2.9	lb ai/a	2.1	qt/a	PRE	A	99	99	99
12	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	3-5"W-1	C			
12	AATREX	90	WG	0.5	lb ai/a	0.556	lb/a	3-5"W-1	C			
12	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	3-5"W-1	C			
12	28% UAN	100	LIQ	2.5	% v/v	2.5	% v/v	3-5"W-1	C			
13	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	1-2"W	B	40	21	21
13	AMS	100	DRY	2.5	lb/a	2.5	lb/a	1-2"W	B			
14	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W-1	C	99	97	97
14	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C			
15	ROUNDUP W-MAX	4.5	SL	1.12	lb ae/a	32	fl oz/a	6-8"W	D	99	99	99
15	AMS	100	DRY	2.5	lb/a	2.5	lb/a	6-8"W	D			
16	HARNESX XTRA	5.6	L	2.1	lb ai/a	1.5	qt/a	PRE	A	99	99	99
16	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W-1	C			
16	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C			
17	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W-1	C	99	99	99
17	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C			
17	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W-2	E			
17	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-2	E			
18	NONTREATED									0	0	0
19	LEXAR	3.7	L	1.62	lb ai/a	1.75	qt/a	PRE	A	99	99	97
19	PRINCEP	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A			
19	LEXAR	3.7	L	1.62	lb ai/a	1.75	qt/a	1-2"W	B			
19	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	1-2"W	B			

Comparison of Application Timings of Mesotrione and Glyphosate Based Products.

Project Code: 05-6A-W190

Location: Belleville Research Center

Investigator: Bryan Young

Weed Code	AMATA	AMATA	AMATA
Crop Code			
Rating Data Type	Control	Control	Control
Rating Unit	Percent	Percent	Percent
Rating Date	06-14-05	07-06-05	10-12-05
Trt-Eval Interval	14 DA-D	Tassel	EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code			
20	BICEP II MAGNUM	5.5	L	2.4	lb ai/a	1.75	qt/a	PRE	A	99	99	99
20	TOUCHDOWN TOTAL	4.17	SC	0.78	lb ae/a	24	fl oz/a	3-5"W-1	C			
20	AMS	100	DRY	2.5	lb/a	2.5	lb/a	3-5"W-1	C			
21	KEYSTONE	5.25	L	3.4	lb ai/a	2.6	qt/a	PRE	A	99	99	99
21	HORNET	68.5	WG	0.171	lb ai/a	4	oz/a	PRE	A			
22	DEFINE	4	SC	0.56	lb ai/a	18	fl oz/a	PRE	A	99	99	99
22	BALANCE PRO	4	SC	0.067	lb ai/a	2.14	fl oz/a	PRE	A			
22	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	PRE	A			
23	GUARDSMAN MAX	5	L	2.5	lb ai/a	2	qt/a	PRE	A	99	99	99
23	BALANCE PRO	4	SC	0.07	lb ai/a	2.25	fl oz/a	PRE	A			
LSD (P=.05)										8.1	6.1	16.9
Replicate F										1.199	0.898	0.562
Replicate Prob(F)										0.3171	0.4469	0.6420
Treatment F										67.018	139.457	20.704
Treatment Prob(F)										0.0001	0.0001	0.0001

Trial Comments

1. Protocol: Syngenta.
2. Ratings: CI at application "B", "D", and 7 DA "D" for all plots.
WC 14 DA "D", at corn tassel, and at harvest.
3. Yield.
4. The application timing for applications "B", "C", and "D" should be based on the weed sizes in treatments 13, 14, and 15, respectively.
5. DA-B = Days after 1-2"W application. Ratings at 0 DA-B were at 1-2"W application.
DA-D = Days after 6-8"W application. Ratings at 0 DA-D were at 6-8"W application.
6. Tassel = Ratings taken at corn tassel. EOS = end of season.
7. Treatment 6 was planned as a single postemergence application of Lumax + Touchdown + AMS at 1-2"W,
however at the first scheduled weed control rating on 6-14-05 it was apparent that the Touchdown was not added to the spray mix.
Thus, Touchdown + AMS (alone) was applied on 6-15-05.
8. Harvested 10-12-05, (2) 30 inch rows by 22 ft.