

Corn Response to Different Postemergence Herbicides.

Project Code: 06-NF-SN 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:** 10-2-06

Objective:

To evaluate the varying response of corn to different postemergence applied corn herbicides.

Weed Code Common Name
 1. NA crop tolerance only

Crop 1: ZEAMX corn, field **Variety:** DKC 60-17 RR
Planting Method: Seeded **Planting Date:** 5-20-06
Rate: 28000 S/A **Depth:** 1.5 IN
Row Spacing: 30 IN

Plot Width, Unit: 10 FT **Plot Length, Unit:** 27 FT **Reps:** 5
Tillage Type: Reduced-Till **Study Design:** Randomized complete block
Previous Crop, Year: GLXMA, 2005
Field Prep./Maintenance: N 150 LB/A, P205 0 LB/A, K20 0 LB/A

Soil Name: Stoy **% OM:** 2.2 **pH:** 6.2 **CEC:** 11
Texture: Silt loam **Fert. Level:** P1: 75 LB/A, K: 348 LB/A

APPLICATION DESCRIPTION

	A	B
Application Date:	6-8-06	6-19-06
Time of Day:	12:30	8:30
Application Method:	Spray	Spray
Application Timing:	10"CN	20"CN
Applic. Placement:	BROFOL	BROFOL
Air Temp., Unit:	86 F	74 F
% Relative Humidity:	48	92
Wind Velocity, Unit:	3-5 MPH	1-2 MPH
Soil Moisture:	NORMAL	NORMAL

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	ZEAMX V4	ZEAMX V6-V7
Height, Unit:	10 IN	20 IN

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code:	NA	NA

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Operating Pressure:	40 PSI	40 PSI
Nozzle Type:	Flat fan	Flat fan
Nozzle Size:	8002	8002
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	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
 Moisture Yield Chloro Necrosis GRORED Tassel
 Percent bu/A Percent Percent Percent DAP
 9-25-06 9-25-06
 5 DAT 5 DAT 10 DAT

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	Moisture Percent	Yield bu/A	Chloro Percent	Necrosis Percent	GRORED Percent	Tassel DAP
1	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	20"	CN B	18.4	153	0	0	0	55
1	AMS	100	DRY	2.0	% w/w	2	% w/w	20"	CN B						
2	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	20"	CN B	17.1	109	0	0	16	55
2	PRIME OIL COC	100	LIQ	1	% v/v	1	% v/v	20"	CN B						
2	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	20"	CN B						
3	ACCENT	75	WG	0.0234	lb ai/a	0.5	oz/a	20"	CN B	18.1	135	0	0	6	55
3	PRIME OIL COC	100	LIQ	1	% v/v	1	% v/v	20"	CN B						
3	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	20"	CN B						
4	CELEBRITY PLUS	70	WG	0.206	lb ai/a	4.7	oz/a	20"	CN B	18.1	132	0	0	5	55
4	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	20"	CN B						
4	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	20"	CN B						
5	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	20"	CN B	17.4	114	0	0	11	55
5	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	20"	CN B						
5	PRIME OIL COC	100	LIQ	1	% v/v	1	% v/v	20"	CN B						
5	28% UAN	100	LIQ	2.5	% v/v	2.5	% v/v	20"	CN B						
6	HORNET	68.5	WG	0.171	lb ai/a	4	oz/a	20"	CN B	18.1	128	0	0	7	55
6	PRIME OIL COC	100	LIQ	1	% v/v	1	% v/v	20"	CN B						
6	28% UAN	100	LIQ	2.5	% v/v	2.5	% v/v	20"	CN B						
7	NONTREATED									18.1	148	0	0	0	55
8	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10"	CN A	18.6	155	0	0	0	55
8	AMS	100	DRY	2.0	% w/w	2	% w/w	10"	CN A						
9	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	10"	CN A	17.7	152	0	0	12	55
9	PRIME OIL COC	100	LIQ	1	% v/v	1	% v/v	10"	CN A						
9	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	10"	CN A						
10	ACCENT	75	WG	0.0234	lb ai/a	0.5	oz/a	10"	CN A	18.7	145	0	0	5	55
10	PRIME OIL COC	100	LIQ	1	% v/v	1	% v/v	10"	CN A						
10	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	10"	CN A						
11	CELEBRITY PLUS	70	WG	0.206	lb ai/a	4.7	oz/a	10"	CN A	18.6	160	0	0	6	55
11	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	10"	CN A						
11	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	10"	CN A						
12	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	10"	CN A	18.3	152	0	0	14	55
12	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	10"	CN A						
12	PRIME OIL COC	100	LIQ	1	% v/v	1	% v/v	10"	CN A						
12	28% UAN	100	LIQ	2.5	% v/v	2.5	% v/v	10"	CN A						
13	HORNET	68.5	WG	0.171	lb ai/a	4	oz/a	10"	CN A	18.5	148	0	0	5	55
13	PRIME OIL COC	100	LIQ	1	% v/v	1	% v/v	10"	CN A						
13	28% UAN	100	LIQ	2.5	% v/v	2.5	% v/v	10"	CN A						
LSD (P=.05)										0.71	12.4	0.0	0.0	2.3	0.0
Replicate F										1.184	33.645	0.000	0.000	0.800	0.000
Replicate Prob(F)										0.3298	0.0001	1.0000	1.0000	0.5312	1.0000
Treatment F										3.618	13.692	0.000	0.000	44.103	0.000
Treatment Prob(F)										0.0007	0.0001	1.0000	1.0000	0.0001	1.0000

Trial Comments

1. Protocol: SIU - RFK.
2. Ratings: Chlorosis/Necrosis 5 DAT; Growth reduction 10 DAT.
 Note weed control if any differences.
 Date of 100% tassel emergence with pollen shed.
3. Yield.
4. Blanket PRE application of Degree Xtra at 3 qt/A to all plots on 5-20-06.
5. Chloro = Chlorosis. GRORED = Growth reduction. Tassel = 100% tassel emergence with pollen shed.
 DAT = Days after treatment. DAP = Days after planting.
 Ratings at 5 DAT were on 6-13-06 and 6-24-06 for the 10"CN and 20"CN applications, respectively.
 Ratings at 10 DAT were on 6-19-06 and 6-29-06 for the 10"CN and 20"CN applications, respectively.
6. Harvested 9-25-06, (2) 30 inch rows by 24 ft.