

Fall Applied Herbicides in Corn.

Project Code: 03-11A-E60 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 11-20-03

Objective:

Evaluate various fall applications of herbicides prior to planting corn.

Weed Code	Common Name	Scientific Name
1.	ALLVI garlic, wild	Allium vineale L.
2.	STEME chickweed, common	Stellaria media (L.) Vill.
3.	LAMAM henbit	Lamium amplexicaule L.
4.	AMBEL ragweed, common	Ambrosia artemisiifolia L.
5.	AMBTR ragweed, giant	Ambrosia trifida L.

Crop 1: ZEAMX corn, field Variety: See note
 Planting Method: Seeded Planting Date: 6-5-03
 Rate: 28000 S/A Depth: 30 IN
 Row Spacing: 30 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 25 FT Reps: 3
 Tillage Type: Reduced-Till Study Design: RANDOMIZED COMPLETE BLOCK
 Previous Crop, Year: GLXMA, 2002

Field Prep./Maintenance: N 150 LB/A, P205 50 LB/A, K20 200 LB/A

Soil Name: Weir % OM: 1.5 pH: 6.0 CEC: 12
 Texture: Silt loam Fert. Level: P1: 81 LB/A, K: 247 LB/A

APPLICATION DESCRIPTION

	A	B
Application Date:	11-19-02	6-25-03
Time of Day:	11:30	8:00
Application Method:	Spray	Spray
Application Timing:	FALL	V3-V6
Applic. Placement:	BROFOL	BROFOL
Air Temp., Unit:	50 F	76 F
% Relative Humidity:	70	72
Wind Velocity, Unit:	3 MPH	0 MPH
Soil Moisture:	NORMAL	NORMAL

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	ZEAMX NA	ZEAMX V3-V5
Height, Unit:	NA NA	3-6 IN

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code:	ALLVI	
Stage(leaves):	3-4	
Height(inches):	4-8	
Density:	Low	
Weed 2 Code:	STEME	
Stage(leaves):	10+	
Height(inches):	0-1	
Density:	Low	
Weed 3 Code:	LAMAM	
Stage(leaves):	10+	
Height(inches):	0-1	
Density:	Medium	

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Operating Pressure:	40 PSI	40 PSI
Nozzle Type:	Flat fan	Flat fan
Nozzle Size:	8003	8002
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	20 GPA	20 GPA

NOTES:

Corn hybrids are DKC 60-17 RR and IT, see treatment list.
Not harvested.

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Weed Code	ALLVI	ALLVI	ALLVI	STEME	STEME	STEME	LAMAM	LAMAM	LAMAM	SETFA	AMBEL	AMBTR
Crop Code												
Rating Data Type	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	12-10-02	4-1-03	5-20-03	12-10-02	4-1-03	5-20-03	12-10-02	4-1-03	5-20-03	5-20-03	5-20-03	5-20-03
Trt-Eval Interval	21 DA-A	133 DA-A	182 DA-A	21 DA-A	133 DA-A	182 DA-A	21 DA-A	133 DA-A	182 DA-A	182 DA-A	182 DA-A	182 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code												
1	IT CORN									0	100	100	0	100	100	0	100	100	0	30	30
1	PRINCEP	90	WG	1.0	LB A/A	17.8	OZ/A	FALL	A												
1	TOUCHDOWN	3	SL	0.75	LB AE/A	32	OZ/A	FALL	A												
1	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A												
1	LIGHTNING	70	WG	0.056	LB A/A	1.28	OZ/A	V3-V6	B												
1	DISTINCT	70	WG	0.175	LB A/A	4	OZ/A	V3-V6	B												
1	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	V3-V6	B												
1	AMS	100	DRY	2.5	LB/A	2.5	LB/A	V3-V6	B												
2	RR CORN									0	0	0	0	0	0	0	0	0	73	63	63
2	NONTREATED																				
3	RR CORN									0	90	90	0	100	100	0	100	100	60	87	73
3	BASIS	75	WG	0.0155	LB A/A	0.33	OZ/A	FALL	A												
3	PRINCEP	90	WG	1.0	LB A/A	17.8	OZ/A	FALL	A												
3	2,4-D LV4	3.8	EC	0.475	LB AE/A	1	PT/A	FALL	A												
3	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	FALL	A												
3	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	V3-V6	B												
3	CALLISTO	4	SC	0.047	LB A/A	1.5	OZ/A	V3-V6	B												
3	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	V3-V6	B												
3	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	V3-V6	B												
3	AMS	100	DRY	2.0	% W/W	2	%W/W	V3-V6	B												
4	RR CORN									0	96	96	0	100	100	0	100	100	73	83	90
4	BASIS	75	WG	0.0234	LB A/A	0.5	OZ/A	FALL	A												
4	PRINCEP	90	WG	1.0	LB A/A	17.8	OZ/A	FALL	A												
4	2,4-D LV4	3.8	EC	0.475	LB AE/A	1	PT/A	FALL	A												
4	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	FALL	A												
4	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	V3-V6	B												
4	CALLISTO	4	SC	0.047	LB A/A	1.5	OZ/A	V3-V6	B												
4	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	V3-V6	B												
4	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	V3-V6	B												
4	AMS	100	DRY	2.0	% W/W	2	%W/W	V3-V6	B												
5	RR CORN									80	90	90	90	100	100	50	100	100	90	90	87
5	PRINCEP	90	WG	1.0	LB A/A	17.8	OZ/A	FALL	A												
5	GRAMOXONE MAX	3	SL	0.328	LB A/A	14	OZ/A	FALL	A												
5	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	FALL	A												
5	28% UAN	100	LIQ	2.0	% V/V	2	%V/V	FALL	A												
5	CALLISTO	4	SC	0.094	LB A/A	3	OZ/A	V3-V6	B												
5	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	V3-V6	B												
5	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	V3-V6	B												
5	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	V3-V6	B												
5	AMS	100	DRY	2.0	% W/W	2	%W/W	V3-V6	B												

Weed Code	ALLVI	ALLVI	ALLVI	STEME	STEME	STEME	LAMAM	LAMAM	LAMAM	SETFA	AMBEL	AMBTR
Crop Code												
Rating Data Type	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	12-10-02	4-1-03	5-20-03	12-10-02	4-1-03	5-20-03	12-10-02	4-1-03	5-20-03	5-20-03	5-20-03	5-20-03
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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code												
6	RR CORN									0	99	99	0	100	100	0	100	100	77	73	73
6	PRINCEP	90	WG	1.0	LB A/A	17.8	OZ/A	FALL	A												
6	TOUCHDOWN	3	SL	0.75	LB AE/A	32	OZ/A	FALL	A												
6	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A												
6	CALLISTO	4	SC	0.094	LB A/A	3	OZ/A	V3-V6	B												
6	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	V3-V6	B												
6	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	V3-V6	B												
6	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	V3-V6	B												
6	AMS	100	DRY	2.0	% W/W	2	%W/W	V3-V6	B												
7	IT CORN									0	0	0	0	0	0	0	0	0	17	17	17
7	NONTREATED																				
8	RR CORN									0	99	99	0	100	100	0	100	100	0	0	0
8	TOUCHDOWN	3	SL	0.75	LB AE/A	32	OZ/A	FALL	A												
8	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A												
8	CALLISTO	4	SC	0.094	LB A/A	3	OZ/A	V3-V6	B												
8	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	V3-V6	B												
8	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	V3-V6	B												
8	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	V3-V6	B												
8	AMS	100	DRY	2.0	% W/W	2	%W/W	V3-V6	B												
9	RR CORN									0	99	99	0	100	100	0	100	100	17	17	17
9	TOUCHDOWN	3	SL	0.75	LB AE/A	32	OZ/A	FALL	A												
9	2,4-D LV4	3.8	EC	0.5	LB AE/A	1.05	PT/A	FALL	A												
9	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A												
9	CALLISTO	4	SC	0.094	LB A/A	3	OZ/A	V3-V6	B												
9	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	V3-V6	B												
9	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	V3-V6	B												
9	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	V3-V6	B												
9	AMS	100	DRY	2.0	% W/W	2	%W/W	V3-V6	B												
10	RR CORN									0	99	99	0	100	100	0	100	100	33	33	33
10	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	OZ/A	FALL	A												
10	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A												
10	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	OZ/A	V3-V6	B												
10	AMS	100	DRY	2.0	% W/W	2	%W/W	V3-V6	B												
11	RR CORN									0	99	99	0	100	100	0	100	100	17	17	17
11	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	OZ/A	FALL	A												
11	2,4-D LV4	3.8	EC	0.5	LB AE/A	1.05	PT/A	FALL	A												
11	AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A												
11	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	OZ/A	V3-V6	B												
11	AMS	100	DRY	2.0	% W/W	2	%W/W	V3-V6	B												

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Crop Code												
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Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	12-10-02	4-1-03	5-20-03	12-10-02	4-1-03	5-20-03	12-10-02	4-1-03	5-20-03	5-20-03	5-20-03	5-20-03
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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	ALLVI	ALLVI	ALLVI	STEME	STEME	STEME	LAMAM	LAMAM	LAMAM	SETFA	AMBEL	AMBTR
	12 RR CORN									0	99	99	0	100	100	0	100	100	33	43	43
	12 GLYPHOMAX PLUS	3	SL	0.375	LB AE/A	1	PT/A	FALL	A												
	12 PYTHON	80	WG	0.05	LB A/A	1	OZ/A	FALL	A												
	12 2,4-D LV4	3.8	EC	0.475	LB A/A	1	PT/A	FALL	A												
	12 ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	FALL	A												
	12 AMS	100	DRY	2.0	% W/W	2	%W/W	FALL	A												
	12 GLYPHOMAX PLUS	3	SL	0.75	LB AE/A	32	OZ/A	V3-V6	B												
	12 AMS	100	DRY	2.0	% W/W	2	%W/W	V3-V6	B												
	LSD (P=.05)									0.0	7.8	7.8	0.0	0.0	0.0	0.0	0.0	0.0	43.3	43.9	43.3
	Replicate F									0.000	0.063	0.063	0.000	0.000	0.000	0.000	0.000	0.000	1.644	1.937	2.924
	Replicate Prob(F)									1.0000	0.9396	0.9396	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.2160	0.1679	0.0748
	Treatment F									0.000	202.172	202.172	0.000	0.000	0.000	0.000	0.000	0.000	4.747	4.523	4.381
	Treatment Prob(F)									1.0000	0.0001	0.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0009	0.0013	0.0016

Fall Applied Herbicides in Corn.

Project Code: 03-11A-E60 Location: Belleville Research Center

Trial Comments

1. Protocol: DuPont, Syngenta, Monsanto, BASF, Dow.
2. Ratings: 21 DA "A", April 1, at planting, and 28 DAP.
3. DA-A = days after FALL application.
4. The planned 28 DAP rating was not possible due to delayed planting.