

Fall Applications of Distinct.

Trial ID: 09-ARC-4-E70

Location: Agronomy Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: Carbondale IL 62901 USA
 Trial Status: FINAL Initiation Date: 11-13-08

Objectives: Evaluate Distinct in fall applications for control of perennial weeds as well as winter annual species prior to corn planting.

Crop 1: ZEAMD Dent corn Variety: See comments
 Planting Method: SEEDED
 Rate, Unit: 28000 S/A Depth, Unit: 1.5 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W	Code: RUMCR	Rumex crispus	dock, curly
Pest 2 Type: W	Code: LAMPU	Lamium purpureum L.	deadnettle, purple
Pest 3 Type: W	Code: GLEHE	Glechoma	ivy, ground
Pest 4 Type: W	Code: ALLVI	Allium vineale L.	garlic, wild
Pest 5 Type: W	Code: STEME	Stellaria media (L.) Vill.	chickweed, common
Pest 6 Type: W	Code: ALOCA	Alopecurus carolinianus Walt.	foxtail, Carolina
Pest 7 Type: W	Code: RANAB	Ranunculus abortivus L.	buttercup, smallflower

Plot Width, Unit: 15 FT Site Type: FIELD
 Plot Length, Unit: 35 FT Tillage Type: NO-TILL
 Replications: 4 Study Design: Randomized Complete Block

Prior Crops, Year
 1. ZEAMD 2008

% OM:	1.7	Texture:	SILT LOAM
pH:	6	Soil Name:	WEIR
CEC:	8.2	Fert. Level:	P1: 64 LB/A, K: 319 LB/A

Application Description A

Application Date: 11-13-08
 Time of Day: 11:00
 Application Method: Spray
 Application Timing: FALL
 Application Placement: BROFOL
 Applied By: DKT
 Air Temperature, Unit: 53 F
 % Relative Humidity: 79
 Wind Velocity, Unit: 4 MPH
 Wind Direction: SW
 Dew Presence (Y/N): N
 Soil Temperature, Unit: 51 F
 Soil Moisture: ABONOR
 % Cloud Cover: 100

11-13-08
 Crop stage at application: NA

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	Pest Stage At Each Application
Application Date:	11-13-08
Weed Code:	RUMCR
Stage Majority (leaves):	4
Stage Min, Max:	1 4
Height Majority:	2 IN
Height Min, Max:	1 3
Density, Unit:	1 FT2
Weed Code:	LAMPU
Stage Majority (leaves):	4
Stage Min, Max:	2 5
Height Majority:	2 IN
Height Min, Max:	1 3
Density, Unit:	2 FT2
Weed Code:	GLEHE
Stage Majority (leaves):	2
Stage Min, Max:	2 4
Height Majority:	2 IN
Height Min, Max:	1 4
Density, Unit:	1 FT2
Weed Code:	ALLVI
Stage Majority (leaves):	2
Stage Min, Max:	2 3
Height Majority:	5 IN
Height Min, Max:	3 8
Density, Unit:	2 FT2
Weed Code:	STEME
Stage Majority (leaves):	6
Stage Min, Max:	3 6
Height Majority:	1.5 IN
Height Min, Max:	1 3
Density, Unit:	1 FT2
Weed Code:	ALOCA
Stage Majority (leaves):	2
Stage Min, Max:	2 3
Height Majority:	3 IN
Height Min, Max:	2 5
Density, Unit:	2 FT2
Weed Code:	RANAB
Stage Majority (leaves):	2
Stage Min, Max:	Coty 2
Height Majority:	1 IN
Height Min, Max:	0.5 1
Density, Unit:	1 FT2

Application Equipment

Appl. Equipment:	CO2 sprayer
Operating Pressure:	30 PSI
Nozzle Type:	Flat fan
Nozzle Size:	XR 8002
Boom Length, Unit:	10 FT
Spray Volume, Unit:	15 GPA

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Pest Code	RUMCR	RUMCR	LAMPU	LAMPU	GLEHE	GLEHE
Crop Code						
Rating Date	04-01-09	05-06-09	11-20-08	12-04-08	11-20-08	12-04-08
Rating Data Type	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent
Rating Timing	Spring	At planting				
Trt-Eval Interval	139 DA-A	174 DA-A	7 DA-A	21 DA-A	7 DA-A	21 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	NONTREATED									0 b	0 b	0 a	0 a	0 b	0 b
2	DISTINCT	70	WG	0.0875	lb ae/a	2	oz/a	FALL	A	93 a	83 a	0 a	0 a	3 b	3 b
2	CORNERSTONE	3	SL	0.56	lb ae/a	24	fl oz/a	FALL	A						
2	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	FALL	A						
2	N-PAK AMS	100	SL	5.0	% v/v	5	% v/v	FALL	A						
3	DISTINCT	70	WG	0.0875	lb ae/a	2	oz/a	FALL	A	95 a	87 a	0 a	0 a	10 a	10 a
3	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	FALL	A						
3	CORNERSTONE	3	SL	0.56	lb ae/a	24	fl oz/a	FALL	A						
3	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	FALL	A						
3	N-PAK AMS	100	SL	5.0	% v/v	5	% v/v	FALL	A						
4	2,4-D LV 4	3.8	EC	0.95	lb ae/a	32	fl oz/a	FALL	A	95 a	92 a	3 a	3 a	3 b	3 b
4	CORNERSTONE	3	SL	0.56	lb ae/a	24	fl oz/a	FALL	A						
4	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	FALL	A						
4	N-PAK AMS	100	SL	5.0	% v/v	5	% v/v	FALL	A						
LSD (P=.05)										4.0	13.2	4.0	4.0	6.0	6.0
Replicate F										1.731	2.571	1.000	1.000	0.600	0.600
Replicate Prob(F)										0.2299	0.1191	0.4363	0.4363	0.6310	0.6310
Treatment F										1416.753	113.096	1.000	1.000	5.400	5.400
Treatment Prob(F)										0.0001	0.0001	0.4363	0.4363	0.0211	0.0211

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

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								ALLVI	ALLVI	ALLVI	ALLVI	STEME	STEME	STEME	STEME
Pest Code								11-20-08	12-04-08	04-01-09	05-06-09	11-20-08	12-04-08	04-01-09	05-06-09
Crop Code								Control	Control	Control	Control	Control	Control	Control	Control
Rating Date								Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Data Type										Spring	At planting			Spring	At planting
Rating Unit															
Rating Timing															
Trt-Eval Interval								7 DA-A	21 DA-A	139 DA-A	174 DA-A	7 DA-A	21 DA-A	139 DA-A	174 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	NONTREATED									0 c	0 c	0 b	0 b	0 a	0 a
2	DISTINCT	70 WG		0.0875 lb ae/a		2 oz/a		FALL	A	10 b	10 b	73 a	88 a	3 a	3 a
2	CORNERSTONE	3 SL		0.56 lb ae/a		24 fl oz/a		FALL	A					96 a	99 a
2	ACTIVATOR 90	100 SL		0.25 % v/v		0.25 % v/v		FALL	A						
2	N-PAK AMS	100 SL		5.0 % v/v		5 % v/v		FALL	A						
3	DISTINCT	70 WG		0.0875 lb ae/a		2 oz/a		FALL	A	10 b	10 b	68 a	86 a	5 a	5 a
3	2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a		FALL	A					91 a	99 a
3	CORNERSTONE	3 SL		0.56 lb ae/a		24 fl oz/a		FALL	A						
3	ACTIVATOR 90	100 SL		0.25 % v/v		0.25 % v/v		FALL	A						
3	N-PAK AMS	100 SL		5.0 % v/v		5 % v/v		FALL	A						
4	2,4-D LV 4	3.8 EC		0.95 lb ae/a		32 fl oz/a		FALL	A	15 a	15 a	74 a	90 a	5 a	5 a
4	CORNERSTONE	3 SL		0.56 lb ae/a		24 fl oz/a		FALL	A					96 a	99 a
4	ACTIVATOR 90	100 SL		0.25 % v/v		0.25 % v/v		FALL	A						
4	N-PAK AMS	100 SL		5.0 % v/v		5 % v/v		FALL	A						
LSD (P=.05)								4.6	4.6	7.6	7.1	7.7	7.7	6.9	0.0
Replicate F								1.000	1.000	0.256	0.292	1.000	1.000	0.273	0.000
Replicate Prob(F)								0.4363	0.4363	0.8554	0.8302	0.4363	0.4363	0.8436	1.0000
Treatment F								19.000	19.000	227.977	394.487	1.000	1.000	479.519	0.000
Treatment Prob(F)								0.0003	0.0003	0.0001	0.0001	0.4363	0.4363	0.0001	1.0000

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

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Pest Code	ALOCA	ALOCA	ALOCA	ALOCA	RANAB	RANAB
Crop Code						
Rating Date	11-20-08	12-04-08	04-01-09	05-06-09	04-01-09	05-06-09
Rating Data Type	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent
Rating Timing			Spring	At planting	Spring	At planting
Trt-Eval Interval	7 DA-A	21 DA-A	139 DA-A	174 DA-A	139 DA-A	174 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	NONTREATED										0 b	0 b	0 b	0 c	0 c
2	DISTINCT	70	WG	0.0875	lb ae/a	2	oz/a	FALL	A	0 b	8 b	85 a	20 ab	83 b	87 ab
2	CORNERSTONE	3	SL	0.56	lb ae/a	24	fl oz/a	FALL	A						
2	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	FALL	A						
2	N-PAK AMS	100	SL	5.0	% v/v	5	% v/v	FALL	A						
3	DISTINCT	70	WG	0.0875	lb ae/a	2	oz/a	FALL	A	5 ab	8 b	80 a	18 b	91 a	91 a
3	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	FALL	A						
3	CORNERSTONE	3	SL	0.56	lb ae/a	24	fl oz/a	FALL	A						
3	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	FALL	A						
3	N-PAK AMS	100	SL	5.0	% v/v	5	% v/v	FALL	A						
4	2,4-D LV 4	3.8	EC	0.95	lb ae/a	32	fl oz/a	FALL	A	8 a	28 a	86 a	33 a	83 b	69 b
4	CORNERSTONE	3	SL	0.56	lb ae/a	24	fl oz/a	FALL	A						
4	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	FALL	A						
4	N-PAK AMS	100	SL	5.0	% v/v	5	% v/v	FALL	A						

LSD (P=.05) 5.5 9.3 11.6 14.7 7.6 19.6

Replicate F	1.941	1.163	1.319	1.918	0.736	0.217
Replicate Prob(F)	0.1936	0.3763	0.3275	0.1972	0.5566	0.8820
Treatment F	4.765	16.347	131.723	8.459	329.960	47.372
Treatment Prob(F)	0.0296	0.0006	0.0001	0.0055	0.0001	0.0001

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

Trial Comments

1. Protocol: BASF.
2. Ratings: WC at 5-7 and 14-21 DAT, April 1 (spring greenup), and prior to planting.
3. Corn was not planted, not needed to complete the ratings.
4. DA-A = Days after FALL application.
5. Not harvested.