

Syngenta Fall Applied Herbicide Demonstration Study.

Project Code: 07-Syngenta-StrpDemo Location: Murphysboro, IL  
Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Murphysboro IL 62966 USA  
Trial Status: Final Updated: 1-24-08

Weed Code	Common Name	Scientific Name
1. RANAB	buttercup, smallflower	Ranunculus abortivus L.
2. LAMAM	henbit	Lamium amplexicaule L.
3. SENGL	groundsel, cressleaf	Senecio glabellus Poir.
4. ALLVI	garlic, wild	Allium vineale L.
5. POAAN	bluegrass, annual	Poa annua L.
6. THLAR	pennycress, field	Thlaspi arvense L.
7. ERICA	horseweed	Conyza canadensis (L.) Crong.

Crop 1: None non-crop

Plot Width, Unit: 20 FT Plot Length, Unit: 363 FT Reps: 3  
Tillage Type: No-Till Study Design: Non-randomized  
Previous Crop, Year: ZEAMX, 2006

Soil Name: Alvin % OM: 1.6 pH: 5.2 CEC: 6.7  
Texture: Very fine sandy loam Fert. Level: P1: 56 LB/A, K: 143 LB/A

APPLICATION DESCRIPTION

A

Application Date: 11-20-06  
 Time of Day: 11:00  
 Application Method: Spray  
 Application Timing: FALL  
 Applic. Placement: BROFOL  
 Air Temp., Unit: 47 F  
 % Relative Humidity: 48  
 Wind Velocity, Unit: 5 MPH  
 Dew Presence (Y/N): N  
 Soil Temp., Unit: 45 F  
 Soil Moisture: ABONOR  
 % Cloud Cover: 0

CROP STAGE AT EACH APPLICATION

A

Crop 1 Code, Stage: None NA  
 Height, Unit: NA NA

WEED STAGE AT EACH APPLICATION

A

Weed 1 Code: RANAB  
 Stage(leaves): 2-8  
 Height(inches): 1-4  
 Density: High

Weed 2 Code: LAMAM  
 Stage(leaves): 10-20  
 Height(inches): 1-3  
 Density: Low

Weed 3 Code: SENGL  
 Stage(leaves): 4-16  
 Height(inches): 2-8  
 Density: Low

Weed 4 Code: ALLVI  
 Stage(leaves): 1-3  
 Height(inches): 1-6  
 Density: Medium

Weed 5 Code: THLAR  
 Stage(leaves): 6-30  
 Height(inches): 3-6  
 Density: Medium

Weed 6 Code: ERICA  
 Stage(leaves): 4-8  
 Height(inches): .5  
 Density: Low

APPLICATION EQUIPMENT

A

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

NOTES:

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										RANAB	RANAB	LAMAM	LAMAM	SENGL	SENGL	ALLVI	ALLVI
										Control	Control	Control	Control	Control	Control	Control	Control
										Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
										4-1-07	5-1-07	4-1-07	5-1-07	4-1-07	5-1-07	4-1-07	5-1-07
										132 DA-A	162 DA-A	132 DA-A	162 DA-A	132 DA-A	162 DA-A	132 DA-A	162 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code								
1	GRAMOXONE INTEON	2 SL		0.375	lb ai/a	24	fl oz/a	FALL	A	99 a	99 a	99 a	99 a	99 a	99 a	0 c	20 d
1	CLASSIC	25 WG		0.0234	lb ai/a	1.5	oz/a	FALL	A								
1	FLEXSTAR	1.88 EC		0.25	lb ai/a	1.06	pt/a	FALL	A								
1	PRIME OIL COC	100 LIQ		1.0	% v/v	1	% v/v	FALL	A								
2	GRAMOXONE INTEON	2 SL		0.375	lb ai/a	24	fl oz/a	FALL	A	99 a	99 a	99 a	99 a	99 a	99 a	80 a	93 a
2	CLASSIC	25 WG		0.0234	lb ai/a	1.5	oz/a	FALL	A								
2	CLARITY	4 EC		0.5	lb ai/a	1.0	pt/a	FALL	A								
2	PRIME OIL COC	100 LIQ		1.0	% v/v	1	% v/v	FALL	A								
3	GRAMOXONE INTEON	2 SL		0.375	lb ai/a	24	fl oz/a	FALL	A	87 b	90 bc	96 a	96 a	86 b	90 b	0 c	0 e
3	CLARITY	4 EC		0.5	lb ai/a	1.0	pt/a	FALL	A								
3	FLEXSTAR	1.88 EC		0.25	lb ai/a	1.06	pt/a	FALL	A								
3	PRIME OIL COC	100 LIQ		1.0	% v/v	1	% v/v	FALL	A								
4	GRAMOXONE INTEON	2 SL		0.375	lb ai/a	24	fl oz/a	FALL	A	99 a	99 a	99 a	99 a	99 a	99 a	96 a	98 a
4	CANOPY EX	29.5 WG				1.65	oz/a	FALL	A								
4	->CLASSIC	25 WG		0.0234	lb ai/a			FALL	A								
4	->EXPRESS	75 WG		0.0070	lb ai/a			FALL	A								
4	PRIME OIL COC	100 LIQ		1.0	% v/v	1	% v/v	FALL	A								
5	GRAMOXONE INTEON	2 SL		0.375	lb ai/a	24	fl oz/a	FALL	A	75 c	83 c	90 ab	90 ab	88 b	83 c	0 c	0 e
5	CLARITY	4 EC		0.5	lb ai/a	1.0	pt/a	FALL	A								
5	PRIME OIL COC	100 LIQ		1.0	% v/v	1	% v/v	FALL	A								
6	GRAMOXONE INTEON	2 SL		0.375	lb ai/a	24	fl oz/a	FALL	A	99 a	99 a	99 a	99 a	99 a	99 a	77 a	67 b
6	CLASSIC	25 WG		0.0234	lb ai/a	1.5	oz/a	FALL	A								
6	PRIME OIL COC	100 LIQ		1.0	% v/v	1	% v/v	FALL	A								
7	GRAMOXONE INTEON	2 SL		0.375	lb ai/a	24	fl oz/a	FALL	A	99 a	99 a	99 a	99 a	99 a	99 a	89 a	99 a
7	CLASSIC	25 WG		0.0234	lb ai/a	1.5	oz/a	FALL	A								
7	FLEXSTAR	1.88 EC		0.25	lb ai/a	1.06	pt/a	FALL	A								
7	2,4-D LV4	3.8 EC		0.475	lb ai/a	1	pt/a	FALL	A								
7	PRIME OIL COC	100 LIQ		1.0	% v/v	1	% v/v	FALL	A								
8	GRAMOXONE INTEON	2 SL		0.375	lb ai/a	24	fl oz/a	FALL	A	99 a	99 a	99 a	99 a	99 a	99 a	50 b	67 b
8	CLASSIC	25 WG		0.0234	lb ai/a	1.5	oz/a	FALL	A								
8	CLARITY	4 EC		0.5	lb ai/a	1.0	pt/a	FALL	A								
8	2,4-D LV4	3.8 EC		0.475	lb ai/a	1	pt/a	FALL	A								
8	PRIME OIL COC	100 LIQ		1.0	% v/v	1	% v/v	FALL	A								
9	GRAMOXONE INTEON	2 SL		0.375	lb ai/a	24	fl oz/a	FALL	A	99 a	93 ab	96 a	99 a	99 a	98 a	0 c	0 e
9	CLARITY	4 EC		0.5	lb ai/a	1.0	pt/a	FALL	A								
9	FLEXSTAR	1.88 EC		0.25	lb ai/a	1.06	pt/a	FALL	A								
9	2,4-D LV4	3.8 EC		0.475	lb ai/a	1	pt/a	FALL	A								
9	PRIME OIL COC	100 LIQ		1.0	% v/v	1	% v/v	FALL	A								
10	GRAMOXONE INTEON	2 SL		0.375	lb ai/a	24	fl oz/a	FALL	A	99 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a
10	CANOPY EX	29.5 WG				1.65	oz/a	FALL	A								
10	->CLASSIC	25 WG		0.0234	lb ai/a			FALL	A								
10	->EXPRESS	75 WG		0.0070	lb ai/a			FALL	A								
10	2,4-D LV4	3.8 EC		0.475	lb ai/a	1	pt/a	FALL	A								
10	PRIME OIL COC	100 LIQ		1.0	% v/v	1	% v/v	FALL	A								
11	GRAMOXONE INTEON	2 SL		0.375	lb ai/a	24	fl oz/a	FALL	A	90 b	90 bc	99 a	99 a	99 a	99 a	0 c	0 e
11	CLARITY	4 EC		0.5	lb ai/a	1.0	pt/a	FALL	A								
11	2,4-D LV4	3.8 EC		0.475	lb ai/a	1	pt/a	FALL	A								
11	PRIME OIL COC	100 LIQ		1.0	% v/v	1	% v/v	FALL	A								
12	GRAMOXONE INTEON	2 SL		0.375	lb ai/a	24	fl oz/a	FALL	A	99 a	99 a	99 a	99 a	99 a	99 a	80 a	90 a
12	CLASSIC	25 WG		0.0234	lb ai/a	1.5	oz/a	FALL	A								
12	2,4-D LV4	3.8 EC		0.475	lb ai/a	1	pt/a	FALL	A								
12	PRIME OIL COC	100 LIQ		1.0	% v/v	1	% v/v	FALL	A								
13	2,4-D LV4	3.8 EC		0.475	lb ai/a	1	pt/a	FALL	A	73 c	72 d	78 b	79 b	53 c	55 d	37 b	47 c
13	PRIME OIL COC	100 LIQ		1.0	% v/v	1	% v/v	FALL	A								
LSD (P=.05)										3.8	6.9	18.1	16.6	8.2	5.3	22.4	10.7
Treatment F										52.656	12.563	0.979	1.028	20.765	47.612	29.653	135.396
Treatment Prob(F)										0.0001	0.0001	0.4922	0.4537	0.0001	0.0001	0.0001	0.0001

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

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Weed Code	POAAN	POAAN	THLAR	THLAR	ERICA
Crop Code					
Rating Data Type	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent
Rating Date	4-1-07	5-1-07	4-1-07	5-1-07	5-1-07
Trt-Eval Interval	132 DA-A	162 DA-A	132 DA-A	162 DA-A	162 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code								
1	GRAMOXONE INTEON	2	SL	0.375	lb ai/a	24	fl oz/a	FALL	A	99	a	99	a	99	a		
1	CLASSIC	25	WG	0.0234	lb ai/a	1.5	oz/a	FALL	A								
1	FLEXSTAR	1.88	EC	0.25	lb ai/a	1.06	pt/a	FALL	A								
1	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A								
2	GRAMOXONE INTEON	2	SL	0.375	lb ai/a	24	fl oz/a	FALL	A	99	a	99	a	99	a		
2	CLASSIC	25	WG	0.0234	lb ai/a	1.5	oz/a	FALL	A								
2	CLARITY	4	EC	0.5	lb ai/a	1.0	pt/a	FALL	A								
2	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A								
3	GRAMOXONE INTEON	2	SL	0.375	lb ai/a	24	fl oz/a	FALL	A	99	a	96	a	99	a		
3	CLARITY	4	EC	0.5	lb ai/a	1.0	pt/a	FALL	A				52	bc	0	c	
3	FLEXSTAR	1.88	EC	0.25	lb ai/a	1.06	pt/a	FALL	A								
3	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A								
4	GRAMOXONE INTEON	2	SL	0.375	lb ai/a	24	fl oz/a	FALL	A	99	a	99	a	99	a	99	a
4	CANOPY EX	29.5	WG			1.65	oz/a	FALL	A								
4	->CLASSIC	25	WG	0.0234	lb ai/a			FALL	A								
4	->EXPRESS	75	WG	0.0070	lb ai/a			FALL	A								
4	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A								
5	GRAMOXONE INTEON	2	SL	0.375	lb ai/a	24	fl oz/a	FALL	A	90	c	92	a	99	a	73	ab
5	CLARITY	4	EC	0.5	lb ai/a	1.0	pt/a	FALL	A							0	c
5	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A								
6	GRAMOXONE INTEON	2	SL	0.375	lb ai/a	24	fl oz/a	FALL	A	99	a	99	a	99	a	99	a
6	CLASSIC	25	WG	0.0234	lb ai/a	1.5	oz/a	FALL	A								
6	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A								
7	GRAMOXONE INTEON	2	SL	0.375	lb ai/a	24	fl oz/a	FALL	A	99	a	99	a	99	a	99	a
7	CLASSIC	25	WG	0.0234	lb ai/a	1.5	oz/a	FALL	A								
7	FLEXSTAR	1.88	EC	0.25	lb ai/a	1.06	pt/a	FALL	A								
7	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	FALL	A								
7	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A								
8	GRAMOXONE INTEON	2	SL	0.375	lb ai/a	24	fl oz/a	FALL	A	99	a	99	a	99	a	99	a
8	CLASSIC	25	WG	0.0234	lb ai/a	1.5	oz/a	FALL	A								
8	CLARITY	4	EC	0.5	lb ai/a	1.0	pt/a	FALL	A								
8	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	FALL	A								
8	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A								
9	GRAMOXONE INTEON	2	SL	0.375	lb ai/a	24	fl oz/a	FALL	A	96	b	98	a	89	a	67	bc
9	CLARITY	4	EC	0.5	lb ai/a	1.0	pt/a	FALL	A							77	b
9	FLEXSTAR	1.88	EC	0.25	lb ai/a	1.06	pt/a	FALL	A								
9	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	FALL	A								
9	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A								
10	GRAMOXONE INTEON	2	SL	0.375	lb ai/a	24	fl oz/a	FALL	A	99	a	99	a	99	a	99	a
10	CANOPY EX	29.5	WG			1.65	oz/a	FALL	A								
10	->CLASSIC	25	WG	0.0234	lb ai/a			FALL	A								
10	->EXPRESS	75	WG	0.0070	lb ai/a			FALL	A								
10	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	FALL	A								
10	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A								
11	GRAMOXONE INTEON	2	SL	0.375	lb ai/a	24	fl oz/a	FALL	A	98	ab	99	a	45	b	40	c
11	CLARITY	4	EC	0.5	lb ai/a	1.0	pt/a	FALL	A							0	c
11	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	FALL	A								
11	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A								
12	GRAMOXONE INTEON	2	SL	0.375	lb ai/a	24	fl oz/a	FALL	A	99	a	99	a	99	a	99	a
12	CLASSIC	25	WG	0.0234	lb ai/a	1.5	oz/a	FALL	A								
12	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	FALL	A								
12	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A								
13	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	FALL	A	99	a	56	b	83	a	76	ab
13	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A							0	c

LSD (P=.05)	2.7	17.6	20.1	30.2	10.8
Treatment F	7.713	3.765	4.876	4.055	159.906
Treatment Prob(F)	0.0001	0.0023	0.0004	0.0014	0.0001

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

Trial Comments

1. Protocol: Syngenta.
2. Ratings: WC April 1 + May 1.
3. DA-A = Days after FALL application.
4. Not harvested.