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Comparison of residual activity for fall and spring applied herbicides.

Trial ID: 06F-THP-NTC-07
Location: Throckmorton

Study Dir.: Kevin Westerfeld/ Vince Davis
Investigator: Dr. William G. Johnson

GENERAL TRIAL INFORMATION

Study Director: Kevin Westerfeld/ Vince Davis	Title: Research Associate
Affiliation: Purdue University	
Postal Code: 47907	
Investigator: Dr. William G. Johnson	Title: Associate Professor
Affiliation: Purdue University	
Postal Code: 47907	

TRIAL LOCATION

City: Lafayette
State/Prov.: IN
Postal Code: 47909-9049
Country: USA
Directions: TPAC Field 5.

COOPERATOR/LANDOWNER

Cooperator: Throckmorton-Purdue Ag Center (TPAC)	Country: USA
Org: Purdue University	Phone No: (765) 538-3422
Address 1: 8343 US 231 South	Fax No: (765) 538-3423
City: Lafayette	
State/Prov: IN	
Postal Code: 47909-9049	

Conducted Under GLP (Y/N): N **Conducted Under GEP (Y/N):** N

Objective: The objective of this experiment is to compare the efficacy of fall and spring applied herbicides for burndown of winter annual weeds and the residual control of summer annual grasses and broadleaves in no-till corn.

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	STEME	Common chickweed	Stellaria media
2.	LAMAM	Henbit	Lamium amplexicaule
3.	THLAR	Field Pennycress	Thlaspi arvense
4.	SETFA	Giant foxtail	Setaria faberi
5.	TAROF	Common dandelion	Taraxacum officinale
6.	ERICA	Horseweed	Conyza canadensis

Crop 1: ZEAMX CORN, FIELD	Variety: DKC 60-18 RR2YGPL
Planting Date: 4/May/2007	Planting Method: DIRECT DRILLED
Rate: 32000 S/A	Depth: 2 IN
Row Spacing: 30 IN	
Soil Temperature: 60 F	Soil Moisture: WET
	Emergence Date: 13/May/2007

SITE AND DESIGN

Plot Width, Unit: 10 FT	Plot Length, Unit: 30 FT	Reps: 4
Site Type: FIELD		
Tillage Type: NO-TILL	Study Design: RANDOMIZED COMPLETE BLOCK	

Trial Initiation Comments: Very thick wheat and foxtail residue cover at timing of fall applications. VMD

Previous Crops
1. Winter Wheat

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	22/May/2007	UAN 28%	74	LB A/A

SOIL DESCRIPTION

% OM: 2.3	Texture: SANDY LOAM
pH: 6.6	Soil Name: Desker
CEC: 9.9	Fert. Level: GOOD

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit
Phosphorus	52	PPM
Potassium	192	PPM
Magnesium	260	PPM
Calcium	1200	PPM

Closest Weather Station: Located on farm

Distance: 0.5 **Unit:** MI

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APPLICATION DESCRIPTION

	A	B	C
Application Date:	28/Nov/2006	20/Apr/2007	11/Jun/2007
Time of Day:	9:10am	3:00pm	2:15pm
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	FallBD	SprBD	POSPOS
Applic. Placement:	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	51 F	55 F	91 F
% Relative Humidity:	70	40	50
Wind Velocity, Unit:	5 MPH	8 MPH	0 MPH
Dew Presence (Y/N):	N	N	N
Water Hardness:	Very Hard	Very Hard	Very Hard
Soil Temp., Unit:	43 F	73 F	70 F
Soil Moisture:	Moist	Wet	Dry
% Cloud Cover:	20	0	0

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	ZEAMX	ZEAMX	ZEAMX
Stage Scale:		N/A	V5-V6
Height, Unit:			11 IN

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	STEME	STEME	STEME
Stage Scale:	0-1"		8-12"flow
Density, Unit:	150 YD2		1-2 YD2
Weed 2 Code, Stage:	LAMAM	LAMAM	LAMAM
Stage Scale:	0-0.5"		
Density, Unit:	2 YD2		
Weed 3 Code, Stage:	THLAR	THLAR	THLAR
Stage Scale:	1-3"		4-12"seed
Density, Unit:	100 YD2		30 YD2
Weed 4 Code, Stage:	SETFA	SETFA	SETFA
Stage Scale:			3-12"
Density, Unit:			1200 YD2
Weed 5 Code, Stage:	TAROF	TAROF	TAROF
Stage Scale:			8-14"
Density, Unit:			1 YD2
Weed 6 Code, Stage:	ERICA	ERICA	ERICA
Stage Scale:			8-14"
Density, Unit:			1 YD2

APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	BackPack	BackPack	BackPack
Operating Pressure:	15 psi	15 psi	15 psi
Nozzle Type:	XR	XR	XR
Nozzle Size:	11002	11002	11002
Nozzle Spacing, Unit:	15 IN	15 IN	15 IN
Boom Length, Unit:	10 FT	10 FT	10 FT
Boom Height, Unit:	15 IN	15 IN	15 IN
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH
Carrier:	H2O	H2O	H2O
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA
Propellant:	CO2	CO2	CO2

Trial Comments

Conditions at Throckmorton farm were very dry early in the spring and residual herbicide performance was variable. See weather reports for rainfall history. VMD

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Comparison of residual activity for fall and spring applied herbicides.

Trial ID: 06F-THP-NTC-07
 Location: Throckmorton

Study Dir.: Kevin Westerfeld/ Vince Davis
 Investigator: Dr. William G. Johnson

Weed Code								THLAR	STEME	SETFA	THLAR	SETFA	
Crop Code								ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	
Rating Data Type								CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Unit								%	%	%	%	%	
Rating Date								1/May/2007	1/May/2007	1/May/2007	15/May/2007	15/May/2007	
Weed Stage								2-3"rose	3-9"rose	5-1"	2-3"rose	5-3"	
Weed Density, Unit								18 YD2	1 YD2	1260YD2	18 YD2	1260YD2	
Assessed By								WGJ + AW	WGJ + AW	WGJ + AW	KW + AW + BN	KW + AW + BN	
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5
1	non-treated check							101	0.0	0.0	0.0	0.0	0.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	306	0.0	0.0	0.0	0.0	0.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C	608	0.0	0.0	0.0	0.0	0.0
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C	805	0.0	0.0	0.0	0.0	0.0
								Mean =	0.0	0.0	0.0	0.0	0.0
2	KIH-485	0.187	LB A/A	0.22	LB/A	FALL BD	A	102	0.0	75.0	75.0	0.0	30.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A	405	90.0	95.0	75.0	25.0	0.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A	603	90.0	98.0	50.0	95.0	0.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	804	70.0	75.0	65.0	40.0	40.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
								Mean =	62.5	85.8	66.3	40.0	17.5
3	KIH-485	0.187	LB A/A	0.22	LB/A	SPR BD	B	103	100.0	100.0	100.0	100.0	95.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B	404	95.0	100.0	90.0	100.0	95.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B	508	100.0	100.0	88.0	100.0	90.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	808	95.0	98.0	73.0	100.0	65.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
								Mean =	97.5	99.5	87.8	100.0	86.3
4	KIH-485	0.223	LB A/A	0.262	LB/A	FALL BD	A	104	0.0	90.0	88.0	0.0	30.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A	403	90.0	100.0	75.0	0.0	0.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A	509	98.0	100.0	30.0	100.0	0.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	706	80.0	93.0	73.0	50.0	0.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
								Mean =	67.0	95.8	66.5	37.5	7.5
5	KIH-485	0.223	LB A/A	0.262	LB/A	SPR BD	B	105	100.0	100.0	95.0	100.0	95.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B	301	100.0	100.0	90.0	100.0	95.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B	609	100.0	100.0	83.0	100.0	85.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	801	100.0	98.0	97.0	100.0	97.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
								Mean =	100.0	99.5	91.3	100.0	93.0
6	Degree Xtra	2.15	LB A/A	4.25	PT/A	FALL BD	A	106	80.0	100.0	60.0	50.0	25.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A	304	75.0	95.0	50.0	65.0	0.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A	506	95.0	98.0	85.0	100.0	0.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	701	95.0	100.0	88.0	90.0	0.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
								Mean =	86.3	98.3	70.8	76.3	6.3
7	Degree Xtra	2.15	LB A/A	4.25	PT/A	SPR BD	B	107	100.0	100.0	95.0	100.0	95.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B	305	100.0	100.0	80.0	100.0	55.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B	505	100.0	100.0	95.0	100.0	85.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	803	100.0	100.0	93.0	100.0	85.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
								Mean =	100.0	100.0	90.8	100.0	80.0

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Weed Code								THLAR	STEME	SETFA	THLAR	SETFA	
Crop Code								ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	
Rating Data Type								CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Unit								%	%	%	%	%	
Rating Date								1/May/2007	1/May/2007	1/May/2007	15/May/2007	15/May/2007	
Weed Stage								2-3"rose	3-9"rose	5-1"	2-3"rose	5-3"	
Weed Density, Unit								18 YD2	1 YD2	1260YD2	18 YD2	1260YD2	
Assessed By								WGJ + AW	WGJ + AW	WGJ + AW	KW + AW + BN	KW + AW + BN	
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5
8	Dual II Magnum	1.59	LB A/A	1.67	PT/A	FALL BD	A	108	10.0	100.0	88.0	0.0	0.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A	407	70.0	85.0	50.0	50.0	0.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A	601	75.0	95.0	70.0	0.0	0.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	707	90.0	95.0	55.0	75.0	0.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
Mean =								61.3	93.8	65.8	31.3	0.0	
9	Dual II Magnum	1.59	LB A/A	1.67	PT/A	SPR BD	B	109	100.0	100.0	95.0	95.0	95.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B	309	100.0	100.0	88.0	90.0	90.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B	604	100.0	100.0	95.0	100.0	98.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	802	100.0	100.0	99.0	100.0	95.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
Mean =								100.0	100.0	94.3	96.3	94.5	
10	Outlook	0.94	LB A/A	20	FL OZ/A	FALL BD	A	201	35.0	90.0	90.0	0.0	95.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A	307	20.0	93.0	80.0	0.0	0.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A	501	90.0	98.0	35.0	85.0	0.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	705	50.0	95.0	70.0	0.0	0.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
Mean =								48.8	94.0	68.8	21.3	23.8	
11	Outlook	0.94	LB A/A	20	FL OZ/A	SPR BD	B	202	100.0	100.0	98.0	100.0	95.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B	409	100.0	100.0	88.0	100.0	80.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B	605	100.0	100.0	95.0	100.0	90.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	809	100.0	100.0	98.0		0.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
Mean =								100.0	100.0	94.8	100.0	66.3	
12	Define SC	0.69	LB A/A	22	FL OZ/A	FALL BD	A	203	70.0	90.0	97.0	0.0	65.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A	401	88.0	98.0	55.0	45.0	0.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A	502	95.0	100.0	45.0	75.0	0.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	702	65.0	90.0	50.0	40.0	10.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
Mean =								79.5	94.5	61.8	40.0	18.8	
13	Define SC	0.69	LB A/A	22	FL OZ/A	SPR BD	B	204	99.0	100.0	98.0	100.0	95.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B	408	100.0	100.0	98.0	100.0	90.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B	504	100.0	100.0	98.0	100.0	95.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	703	98.0	99.0	98.0	100.0	99.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
Mean =								99.3	99.8	98.0	100.0	94.8	
14	Basis	0.375	OZ A/A	0.5	OZ/A	FALL BD	A	205	95.0	90.0	83.0	80.0	75.0
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALL BD	A	402	98.0	100.0	55.0	95.0	0.0
	COC	1	% V/V	1	% V/V	FALL BD	A	606	95.0	95.0	70.0	100.0	0.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	708	90.0	95.0	45.0	85.0	0.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
Mean =								94.5	95.0	63.3	90.0	18.8	

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Weed Code								THLAR	STEME	SETFA	THLAR	SETFA
Crop Code								ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
Rating Data Type								CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit								%	%	%	%	%
Rating Date								1/May/2007	1/May/2007	1/May/2007	15/May/2007	15/May/2007
Weed Stage								2-3"rose	3-9"rose	5-1"	2-3"rose	5-3"
Weed Density, Unit								18 YD2	1 YD2	1260YD2	18 YD2	1260YD2
Assessed By								WGJ + AW	WGJ + AW	WGJ + AW	KW + AW + BN	KW + AW + BN
Trit No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code Plot	1	2	3	4	5
15	Basis	0.375	OZ A/A	0.5	OZ/A	FALL BD	A 206	95.0	85.0	85.0	95.0	70.0
	Princep 4FL	14.4	OZ A/A	28.8	FL OZ/A	FALL BD	A 308	90.0	98.0	40.0	40.0	0.0
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALL BD	A 507	100.0	100.0	30.0	100.0	0.0
	COC	1	% V/V	1	% V/V	FALL BD	A 704	98.0	100.0	75.0	100.0	30.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C					
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C					
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C					
							Mean =	95.8	95.8	57.5	83.8	25.0
16	Autumn	0.03	OZ A/A	0.3	OZ/A	FALL BD	A 207	50.0	80.0	95.0	0.0	85.0
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALL BD	A 302	25.0	85.0	50.0	0.0	0.0
	COC	1	% V/V	1	% V/V	FALL BD	A 503	90.0	98.0	20.0	95.0	0.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A 807	50.0	70.0	20.0	100.0	20.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C					
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C					
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C					
							Mean =	53.8	83.3	46.3	48.8	26.3
17	Princep 4FL	14.4	OZ A/A	28.8	FL OZ/A	FALL BD	A 208	70.0	90.0	83.0	0.0	75.0
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALL BD	A 406	90.0	95.0	50.0	70.0	0.0
	COC	1	% V/V	1	% V/V	FALL BD	A 607	95.0	100.0	25.0	100.0	0.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C 709	100.0	80.0	20.0	100.0	0.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C					
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C					
							Mean =	88.8	91.3	44.5	67.5	18.8
18	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A 209	0.0	100.0	90.0	0.0	90.0
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALL BD	A 303	30.0	90.0	40.0	0.0	0.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A 602	80.0	95.0	50.0	50.0	0.0
							806	55.0	75.0	35.0	0.0	0.0
							Mean =	41.3	90.0	53.8	12.5	22.5

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Weed Code									SETFA
Crop Code									ZEAMX
Rating Data Type									CONTRO
Rating Unit									%
Rating Date									31/May/2007
Weed Stage									2-6"
Weed Density, Unit									1080YD2
Assessed By									WGJ
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	6
1	non-treated check							101	0.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	306	0.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C	608	0.0
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C	805	0.0
								Mean =	0.0
2	KIH-485	0.187	LB A/A	0.22	LB/A	FALL BD	A	102	30.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A	405	0.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A	603	0.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	804	20.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C		
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C		
								Mean =	12.5
3	KIH-485	0.187	LB A/A	0.22	LB/A	SPR BD	B	103	95.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B	404	90.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B	508	85.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	808	50.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C		
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C		
								Mean =	80.0
4	KIH-485	0.223	LB A/A	0.262	LB/A	FALL BD	A	104	30.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A	403	0.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A	509	0.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	706	0.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C		
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C		
								Mean =	7.5
5	KIH-485	0.223	LB A/A	0.262	LB/A	SPR BD	B	105	90.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B	301	93.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B	609	85.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	801	97.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C		
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C		
								Mean =	91.3
6	Degree Xtra	2.15	LB A/A	4.25	PT/A	FALL BD	A	106	20.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A	304	0.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A	506	0.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	701	0.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C		
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C		
								Mean =	5.0
7	Degree Xtra	2.15	LB A/A	4.25	PT/A	SPR BD	B	107	80.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B	305	25.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B	505	65.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	803	40.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C		
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C		
								Mean =	52.5
8	Dual II Magnum	1.59	LB A/A	1.67	PT/A	FALL BD	A	108	0.0
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A	407	0.0
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A	601	0.0
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	707	0.0
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C		
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C		
								Mean =	0.0

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Weed Code								SETFA
Crop Code								ZEAMX
Rating Data Type								CONTRO
Rating Unit								%
Rating Date								31/May/2007
Weed Stage								2-6"
Weed Density, Unit								1080YD2
Assessed By								WGJ
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot
								6
9	Dual II Magnum	1.59	LB A/A	1.67	PT/A	SPR BD	B	109
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B	309
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B	604
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	802
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C	
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C	
								Mean = 79.0
10	Outlook	0.94	LB A/A	20	FL OZ/A	FALL BD	A	201
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A	307
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A	501
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	705
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C	
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C	
								Mean = 17.5
11	Outlook	0.94	LB A/A	20	FL OZ/A	SPR BD	B	202
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B	409
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B	605
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	809
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C	
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C	
								Mean = 50.8
12	Define SC	0.69	LB A/A	22	FL OZ/A	FALL BD	A	203
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A	401
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A	502
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	702
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C	
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C	
								Mean = 6.3
13	Define SC	0.69	LB A/A	22	FL OZ/A	SPR BD	B	204
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B	408
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B	504
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	703
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C	
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C	
								Mean = 90.5
14	Basis	0.375	OZ A/A	0.5	OZ/A	FALL BD	A	205
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALL BD	A	402
	COC	1	% V/V	1	% V/V	FALL BD	A	606
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	708
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C	
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C	
								Mean = 11.3
15	Basis	0.375	OZ A/A	0.5	OZ/A	FALL BD	A	206
	Princep 4FL	14.4	OZ A/A	28.8	FL OZ/A	FALL BD	A	308
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALL BD	A	507
	COC	1	% V/V	1	% V/V	FALL BD	A	704
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C	
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C	
								Mean = 15.0

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Weed Code								SETFA
Crop Code								ZEAMX
Rating Data Type								CONTRO
Rating Unit								%
Rating Date								31/May/2007
Weed Stage								2-6"
Weed Density, Unit								1080YD2
Assessed By								WGJ
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot
6								
16	Autumn	0.03	OZ A/A	0.3	OZ/A	FALL BD	A	207
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALL BD	A	302
	COC	1	% V/V	1	% V/V	FALL BD	A	503
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A	807
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C	
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C	
Mean =								15.0
17	Princep 4FL	14.4	OZ A/A	28.8	FL OZ/A	FALL BD	A	208
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALL BD	A	406
	COC	1	% V/V	1	% V/V	FALL BD	A	607
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C	709
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C	
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C	
Mean =								7.5
18	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A	209
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALL BD	A	303
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A	602
								806
Mean =								12.5

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Comparison of residual activity for fall and spring applied herbicides.

Trial ID: 06F-THP-NTC-07
 Location: Throckmorton

Study Dir.: Kevin Westerfeld/ Vince Davis
 Investigator: Dr. William G. Johnson

Weed Code							THLAR	STEME	SETFA	THLAR	SETFA	SETFA	
Crop Code							ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	
Rating Data Type							CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Unit							%	%	%	%	%	%	
Rating Date							1/May/2007	1/May/2007	1/May/2007	15/May/2007	15/May/2007	31/May/2007	
Weed Stage							2-3"rose	3-9"rose	5-1"	2-3"rose	5-3"	2-6"	
Weed Density, Unit							18 YD2	1 YD2	1260YD2	18 YD2	1260YD2	1080YD2	
Assessed By							WGJ + AW	WGJ + AW	WGJ + AW	KW + AW + BN	KW + AW + BN	WGJ	
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6
1	non-treated check							0.0 f	0.0 f	0.0 g	0.0 f	0.0 b	0.0 c
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
2	KIH-485	0.187	LB A/A	0.22	LB/A	FALL BD	A	62.5 b-e	85.8 de	66.3 def	40.0 cde	17.5 b	12.5 c
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A						
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A						
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
3	KIH-485	0.187	LB A/A	0.22	LB/A	SPR BD	B	97.5 a	99.5 a	87.8 a-d	100.0 a	86.3 a	80.0 a
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B						
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B						
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
4	KIH-485	0.223	LB A/A	0.262	LB/A	FALL BD	A	67.0 b-e	95.8 abc	66.5 def	37.5 cde	7.5 b	7.5 c
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A						
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A						
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
5	KIH-485	0.223	LB A/A	0.262	LB/A	SPR BD	B	100.0 a	99.5 a	91.3 ab	100.0 a	93.0 a	91.3 a
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B						
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B						
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
6	Degree Xtra	2.15	LB A/A	4.25	PT/A	FALL BD	A	86.3 abc	98.3 ab	70.8 b-e	76.3 ab	6.3 b	5.0 c
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A						
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A						
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
7	Degree Xtra	2.15	LB A/A	4.25	PT/A	SPR BD	B	100.0 a	100.0 a	90.8 abc	100.0 a	80.0 a	52.5 b
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B						
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B						
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
8	Dual II Magnum	1.59	LB A/A	1.67	PT/A	FALL BD	A	61.3 cde	93.8 abc	65.8 def	31.3 def	0.0 b	0.0 c
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A						
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A						
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						

Purdue University

Weed Code								THLAR	STEME	SETFA	THLAR	SETFA	SETFA
Crop Code								ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
Rating Data Type								CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit								%	%	%	%	%	%
Rating Date								1/May/2007	1/May/2007	1/May/2007	15/May/2007	15/May/2007	31/May/2007
Weed Stage								2-3"rose	3-9"rose	5-1"	2-3"rose	5-3"	2-6"
Weed Density, Unit								18 YD2	1 YD2	1260YD2	18 YD2	1260YD2	1080YD2
Assessed By								WGJ + AW	WGJ + AW	WGJ + AW	KW + AW + BN	KW + AW + BN	WGJ
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6
9	Dual II Magnum	1.59	LB A/A	1.67	PT/A	SPR BD	B	100.0 a	100.0 a	94.3 a	96.3 a	94.5 a	79.0 a
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B						
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B						
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
10	Outlook	0.94	LB A/A	20	FL OZ/A	FALL BD	A	48.8 e	94.0 abc	68.8 cde	21.3 def	23.8 b	17.5 c
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A						
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A						
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
11	Outlook	0.94	LB A/A	20	FL OZ/A	SPR BD	B	100.0 a	100.0 a	94.8 a	100.0 a	66.3 a	50.8 b
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B						
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B						
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
12	Define SC	0.69	LB A/A	22	FL OZ/A	FALL BD	A	79.5 a-d	94.5 abc	61.8 ef	40.0 cde	18.8 b	6.3 c
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A						
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A						
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
13	Define SC	0.69	LB A/A	22	FL OZ/A	SPR BD	B	99.3 a	99.8 a	98.0 a	100.0 a	94.8 a	90.5 a
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	SPR BD	B						
	AMS	17	LB A/100 GAL	17	LB/100 GAL	SPR BD	B						
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
14	Basis	0.375	OZ A/A	0.5	OZ/A	FALL BD	A	94.5 a	95.0 abc	63.3 ef	90.0 a	18.8 b	11.3 c
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALL BD	A						
	COC	1	% V/V	1	% V/V	FALL BD	A						
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
15	Basis	0.375	OZ A/A	0.5	OZ/A	FALL BD	A	95.8 a	95.8 abc	57.5 ef	83.8 ab	25.0 b	15.0 c
	Princep 4FL	14.4	OZ A/A	28.8	FL OZ/A	FALL BD	A						
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALL BD	A						
	COC	1	% V/V	1	% V/V	FALL BD	A						
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
16	Autumn	0.03	OZ A/A	0.3	OZ/A	FALL BD	A	53.8 de	83.3 e	46.3 f	48.8 bcd	26.3 b	15.0 c
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALL BD	A						
	COC	1	% V/V	1	% V/V	FALL BD	A						
	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A						
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						

Purdue University

Weed Code							THLAR	STEME	SETFA	THLAR	SETFA	SETFA	
Crop Code							ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	
Rating Data Type							CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Unit							%	%	%	%	%	%	
Rating Date							1/May/2007	1/May/2007	1/May/2007	15/May/2007	15/May/2007	31/May/2007	
Weed Stage							2-3"rose	3-9"rose	5-1"	2-3"rose	5-3"	2-6"	
Weed Density, Unit							18 YD2	1 YD2	1260YD2	18 YD2	1260YD2	1080YD2	
Assessed By							WGJ + AW	WGJ + AW	WGJ + AW	KW + AW + BN	KW + AW + BN	WGJ	
Trit No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6
17	Princep 4FL	14.4	OZ A/A	28.8	FL OZ/A	FALL BD	A	88.8 ab	91.3 bcd	44.5 f	67.5 abc	18.8 b	7.5 c
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALL BD	A						
	COC	1	% V/V	1	% V/V	FALL BD	A						
	Distinct	3.06	OZ A/A	4	OZ/A	POSPOS	C						
	Nitrogen 28%	3.33	% V/V	2	QT/A	POSPOS	C						
	NIS	0.25	% V/V	0.25	% V/V	POSPOS	C						
18	Roundup WeatherMAX	0.77	LB AE/A	22	FL OZ/A	FALL BD	A	41.3 e	90.0 cde	53.8 ef	12.5 ef	22.5 b	12.5 c
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALL BD	A						
	AMS	17	LB A/100 GAL	17	LB/100 GAL	FALL BD	A						
LSD (P=.05)							26.66	7.84	22.47	35.78	30.10	18.54	
Standard Deviation							18.85	5.54	15.89	25.04	21.28	13.11	
CV							24.66	6.17	23.41	39.36	54.75	42.6	
Grand Mean							76.44	89.78	67.88	63.61	38.88	30.78	
Bartlett's X2							52.668	41.999	25.831	18.225	37.998	19.745	
P(Bartlett's X2)							0.001*	0.001*	0.04*	0.077	0.001*	0.182	
Replicate F							6.737	4.539	8.807	8.186	14.230	18.885	
Replicate Prob(F)							0.0006	0.0068	0.0001	0.0002	0.0001	0.0001	
Treatment F							8.616	68.548	9.130	7.688	11.129	25.744	
Treatment Prob(F)							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	

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