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HALEX GT WITH PROWL IN FIELD CORN

Trial ID: CN-13-18 Study Dir.: JEREMY KICHLER
Location: PONDER FARM Investigator: Eric P. Prostko

Reps: 3 Plots: 6 by 25 feet
Spray vol: 15 GAL/AC Mix Size: 1.5 L (total for 3 plots; minimum=0.5866 L)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code	Amt Product to Measure	Rep 1	Rep 2	Rep 3
1	NTC								101	203	304
2	ROUNDUP P-MAX	5.5 SL		32.0 oz/a		POST A		25.0 mL/mx	102	204	303
	ATRAZINE	4 L		64.0 oz/a		POST A		49.99 mL/mx			
	PROWL H20	3.8 SC		32.0 oz/a		POST A		25.0 mL/mx			
3	HALEX GT	4.39 SC		58.0 oz/a		POST A		45.31 mL/mx	103	202	301
	ATRAZINE	4 L		64.0 oz/a		POST A		49.99 mL/mx			
	NIS			0.25 % v/v		POST A		3.75 mL/mx			
4	HALEX GT	4.39 SC		58.0 oz/a		POST A		45.31 mL/mx	104	201	302
	ATRAZINE	4 L		64.0 oz/a		POST A		49.99 mL/mx			
	PROWL H20	3.8 SC		32.0 oz/a		POST A		25.0 mL/mx			
	NIS			0.25 % v/v		POST A		3.75 mL/mx			

Sort Order: Treatment

Trial Comments

HALEX GT = MESOTRIONE (0.209 LBS/GAL) + GLYPHOSATE (2.09 LBS/GAL) + S-METOLACHLOR (2.09 LBS/GAL)

NIS = INDUCE (HELENA)

HARVEST MOSITURE: 17.23%

YIELDS ADJUSTED TO 15.5%

SUMMARY:

1) ADDITIONS OF PROWL TO HALEX GT + ATRAZINE INCREASED CORN CHLOROSIS BUT DID NOT EFFECT WEED CONTROL OR GRAIN YIELD.

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Location: PONDER FARM		Investigator: Eric P. Prostko							
GENERAL TRIAL INFORMATION									
Study Director: JEREMY KICHLER					Title: _____				
Affiliation: _____					Postal Code: _____				
Investigator: Eric P. Prostko					Title: _____				
Affiliation: _____					Postal Code: _____				
Trial Status: _____			Initiation Date: _____			Country: _____			
City: _____			State/Prov.: _____			Postal Code: _____			
Conducted Under GLP (Y/N): N			Conducted Under GEP (Y/N): N						
Objective: _____									
Conclusions: _____									
CROP AND PEST DESCRIPTION									
Weed 1. AMAPA PALMER AMARANTH 2. AGRASS TX PAN;CRAB;CROW;GOOSE									
Weed 3. RAPRA WILD RADISH 4. _____									
Crop 1: ZEAMA FIELD CORN Variety: PIONEER 1870YHR Planting Date: Mar-27-18									
Planting Method: MONOSEM Rate: 36300 SEED/A Depth: 1.75 IN									
Perennial Age: _____ Row Spacing: 36 IN Seed Bed: _____									
Soil Temperature: _____ Soil Moisture: OPTIMUM Emergence Date: _____									
Plot Width, Unit: 6 FT Plot Length, Unit: 25 FT Reps: 3									
Site Type: _____									
Tillage Type: CONVENTIONAL Study Design: RACOBL									
Trial Initiation Comments: _____									
Previous: Crops Pesticides Year									
1. COTTON 2017 _____									
MAINTENANCE									
Field Prep./Maintenance: _____									
Form Form Form Rate									
No.	Date	Treatment Name	Conc	Unit	Type	Rate	Unit		
1.	_____	_____	_____	_____	_____	_____	_____		
SOIL DESCRIPTION									
Texture: SAND % OM: 0.57 % Sand: 96 % Silt: 0 % Clay: 4									
pH: 6.5 CEC: 2.4 Soil Name: FUQUAY Fertility Level: GOOD									
MOISTURE CONDITIONS									
On: Date	Time	Amount	Unit	Type	Interval	Unit			
1. Mar-29-18	_____	0.4	IN	SPRINKLER - LATERAL MOVE	_____	_____			
2. Mar-30-18	_____	1.03	IN	RAINFALL	_____	_____			
3. Apr-4-18	_____	0.03	IN	RAINFALL	_____	_____			
4. Apr-5-18	_____	0.5	IN	SPRINKLER - LATERAL MOVE	_____	_____			
5. Apr-7-18	_____	0.36	IN	RAINFALL	_____	_____			
6. Apr-12-18	_____	0.5	IN	SPRINKLER - LATERAL MOVE	_____	_____			
7. Apr-15-18	_____	1.0	IN	RAINFALL	_____	_____			
Overall Moisture Conditions: _____									
Closest Weather Station: _____ Distance: _____ Unit: _____									
APPLICATION DESCRIPTION									
A B C D E F									
Application Date: Apr-17-18									
Time of Day: 8:00 AM									
Application Method: BROADCAST									
Application Timing: POST									
Applic. Placement: FOLIAGE									
Air Temp., Unit: 44 F									
% Relative Humidity: 91									
Wind Velocity, Unit: 1 MPH									
Dew Presence (Y/N): Y									
Water Hardness: --									
Soil Temp., Unit: 52 F									
Soil Moisture: OPTIMUM									
% Cloud Cover: 0									

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		CROP STAGE AT EACH APPLICATION					
		A	B	C	D	E	F
Crop 1	Stage: ZEAMA						
Stage Scale:	4 LF; V3						
Height, Unit:	4 IN						

		WEED STAGE AT EACH APPLICATION					
		A	B	C	D	E	F
Weed 1	Stage: AMAPA 0.5-1" T						
Stage Scale:							
Density, Unit:							
Weed 2	Stage: AGRASS 0.5-1" T						
Stage Scale:							
Density, Unit:							
Weed 3	Stage: RAPRA 1-2" T						
Stage Scale:	2-3 LF						
Density, Unit:							

		APPLICATION EQUIPMENT					
		A	B	C	D	E	F
Appl. Equipment:	BACKPACK						
Operating Pressure:	43						
Nozzle Type:	AIXR						
Nozzle Size:	11002						
Nozzle Spacing, Unit:	20 IN						
Nozzles/Row:							
Band Width, Unit:							
Boom Length, Unit:	60 IN						
Boom Height, Unit:	20 IN						
Ground Speed, Unit:	3.5 MPH						
Incorporation Equip.:							
Hours to Incorp.:							
Incorp. Depth, Unit:							
Carrier:	WATER						
Spray Volume, Unit:	15 GPA						
Spray pH:							
Propellant:	CO2						
Tank Mix (Y/N):							

Trt No	Treatment Application Comment

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Location: PONDER FARM			Investigator: Eric P. Prostko										
Weed Code							-----	-----	AMAPA	AGRASS	-----	AMAPA	
Crop Code							ZEAMA	ZEAMA	-----	-----	ZEAMA	-----	
Part Rated							LEAF -	PLANT -			PLANT -		
Rating Data Type							CHLORSIS	STUNTING	CONTROL	CONTROL	STUNTING	CONTROL	
Rating Unit							PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	
Rating Date							Apr-20-18	Apr-26-18	Apr-26-18	Apr-26-18	May-10-18	May-10-18	
Trt-Eval Interval							3 DA-A	9 DA-A	9 DA-A	9 DA-A	23 DA-A	23 DA-A	
PRM Data Type													
# Subsamples, Dec.													
Trt	Treatment	Form	Form	Rate	Grow	Appl							
No.	Name	Conc	Type	Rate	Unit	Stg	Code						
	1 NTC							1	2	3	4	5	6
								0.0 c	0.0 b	0.0 b	0.0 b	0.0 a	0.0 b
	2 ROUNDUP P-MAX	5.5	SL	32.0 oz/a	POST A			3.3 c	10.0 a	99.0 a	99.0 a	5.0 a	99.0 a
	ATRAZINE	4	L	64.0 oz/a	POST A								
	PROWL H2O	3.8	SC	32.0 oz/a	POST A								
	3 HALEX GT	4.39	SC	58.0 oz/a	POST A			11.7 b	10.0 a	99.0 a	99.0 a	6.7 a	99.0 a
	ATRAZINE	4	L	64.0 oz/a	POST A								
	NIS			0.25 % v/v	POST A								
	4 HALEX GT	4.39	SC	58.0 oz/a	POST A			18.3 a	6.7 ab	99.0 a	99.0 a	1.7 a	99.0 a
	ATRAZINE	4	L	64.0 oz/a	POST A								
	PROWL H2O	3.8	SC	32.0 oz/a	POST A								
	NIS			0.25 % v/v	POST A								
Tukey's HSD P=.10							6.49	6.78	.	.	9.78	.	
Standard Deviation							2.76	2.89	0.00	0.00	4.17	0.00	
CV							33.17	43.3	0.0	0.0	125.0	0.0	
Grand Mean							8.33	6.67	74.25	74.25	3.33	74.25	
Levene's F							0.00		0.00	0.00	0.611	0.00	
Levene's Prob(F)							0.00*		0.00*	0.00*	0.627	0.00*	
Replicate F							0.273	1.000	0.000	0.000	0.840	0.000	
Replicate Prob(F)							0.7703	0.4219	1.0000	1.0000	0.4768	1.0000	
Treatment F							26.909	8.000	0.000	0.000	1.600	0.000	
Treatment Prob(F)							0.0007	0.0161	1.0000	1.0000	0.2853	1.0000	

Means followed by same letter or symbol do not significantly differ (P=.10, Tukey's HSD)

Could not calculate Tukey's HSD (% mean diff) for columns 3,4,6,9 because error mean square = 0.

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Weed Code	AGRASS	-----	AMAPA	AGRASS	-----	-----
Crop Code	-----	ZEAMA	-----	-----	ZEAMA	ZEAMA
Part Rated		BUGGY -			PLOT -	PLOT -
Rating Data Type	CONTROL	WHIPPING	CONTROL	CONTROL	YIELD	YIELD
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	LBS/PLOT	BU/A
Rating Date	May-10-18	May-10-18	Jun-6-18	Jun-6-18	Sep-5-18	Sep-5-18
Trt-Eval Interval	23 DA-A	23 DA-A	50 DA-A	50 DA-A	141 DA-A	141 DA-A
PRM Data Type						TY1
# Subsamples, Dec.						- 0
Trt Treatment	Form	Form	Rate	Grow	Appl	
No. Name	Conc	Type	Unit	Stg	Code	
1 NTC	7			8		
2 ROUNDUP P-MAX	0.0 b			0.0 a		
ATRAZINE	99.0 a			99.0 a		
PROWL H20				99.0 a		
3 HALEX GT				89.7 a		
ATRAZINE	96.0 a			44.3 a		
NIS				225 a		
4 HALEX GT				42.7 a		
ATRAZINE	99.0 a			217 a		
PROWL H20						
NIS						
Tukey's HSD P=.10	6.10	3.20	.	9.49	11.48	58.3
Standard Deviation	2.60	1.36	0.00	4.04	4.89	24.8
CV	3.53	148.82	0.0	5.62	11.4	11.4
Grand Mean	73.50	0.92	74.25	71.92	42.92	218.0
Levene's F		0.928	0.00		0.323	0.323
Levene's Prob(F)		0.471	0.00*		0.809	0.809
Replicate F	1.000	2.194	0.000	1.000	0.233	0.233
Replicate Prob(F)	0.4219	0.1927	1.0000	0.4219	0.7987	0.7987
Treatment F	1068.000	2.075	0.000	425.760	1.453	1.453
Treatment Prob(F)	0.0001	0.2051	1.0000	0.0001	0.3182	0.3182

Means followed by same letter or symbol do not significantly differ (P=.10, Tukey's HSD)
 Could not calculate Tukey's HSD (% mean diff) for columns 3,4,6,9 because error mean square = 0.

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Location: PONDER FARM	Investigator: Eric P. Prostko
<u>Weed Code</u> AMAPA = AMARANTH, PALMER / AMARANTHUS PALMERI S.WATS. <u>Part Rated</u> LEAF = LEAF / FOLIAGE PLANT = PLANT / PLANT BIOMASS (includes Shrub, Tree, Turf) <u>PRM Data Type</u> TY1 = 5.079545*[11]	

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Crop Code						ZEAMA	ZEAMA	-----	-----	ZEAMA	-----
Part Rated						LEAF -	PLANT -			PLANT -	
Rating Data Type						CHLORSIS	STUNTING	CONTROL	CONTROL	STUNTING	CONTROL
Rating Unit						PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date						Apr-20-18	Apr-26-18	Apr-26-18	Apr-26-18	May-10-18	May-10-18
Trt-Eval Interval						3 DA-A	9 DA-A	9 DA-A	9 DA-A	23 DA-A	23 DA-A
PRM Data Type											
# Subsamples, Dec.											
Trt	Treatment	Form	Form	Rate	Grow	Appl					
No.	Name	Conc	Type	Rate	Unit	Stg	Code	Plot			
									1	2	3
									4	5	6
1	NTC						101		0.0	0.0	0.0
							203		0.0	0.0	0.0
							304		0.0	0.0	0.0
							Mean =		0.0	0.0	0.0
2	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	A	102	5.0	10.0	99.0
	ATRAZINE	4	L	64.0	oz/a	POST	A	204	5.0	10.0	99.0
	PROWL H20	3.8	SC	32.0	oz/a	POST	A	303	0.0	10.0	99.0
							Mean =		3.3	10.0	99.0
3	HALEX GT	4.39	SC	58.0	oz/a	POST	A	103	10.0	10.0	99.0
	ATRAZINE	4	L	64.0	oz/a	POST	A	202	10.0	10.0	99.0
	NIS			0.25	% v/v	POST	A	301	15.0	10.0	99.0
							Mean =		11.7	10.0	99.0
4	HALEX GT	4.39	SC	58.0	oz/a	POST	A	104	20.0	0.0	99.0
	ATRAZINE	4	L	64.0	oz/a	POST	A	201	15.0	10.0	99.0
	PROWL H20	3.8	SC	32.0	oz/a	POST	A	302	20.0	10.0	99.0
	NIS			0.25	% v/v	POST	A				
							Mean =		18.3	6.7	99.0

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Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date Trt-Eval Interval PRM Data Type # Subsamples, Dec.							AGRASS ----- CONTROL PERCENT May-10-18 23 DA-A	----- ZEAMA BUGGY - WHIPPING PERCENT May-10-18 23 DA-A	AMAPA ----- CONTROL PERCENT Jun-6-18 50 DA-A	AGRASS ----- CONTROL PERCENT Jun-6-18 50 DA-A	----- ZEAMA PLOT - YIELD LBS/PLOT Sep-5-18 141 DA-A	----- ZEAMA PLOT - YIELD BU/A Sep-5-18 141 DA-A TY1 - 0		
Trt	Treatment	Form	Form	Rate	Grow	Appl								
No.	Name	Conc	Type	Rate	Unit	Stg	Code	Plot	7	8	9	10	11	12
1	NTC						101		0.0	0.0	0.0	0.0	34.0	173
							203		0.0	0.0	0.0	0.0	44.0	224
							304		0.0	0.0	0.0	0.0	37.0	188
							Mean =		0.0	0.0	0.0	0.0	38.3	195
2	ROUNDUP P-MAX ATRAZINE PROWL H2O	5.5 4 L 3.8	SL L SC	32.0 64.0 32.0	oz/a oz/a oz/a	POST POST POST	A A A	102	99.0	0.0	99.0	99.0	44.0	224
								204	99.0	0.0	99.0	99.0	44.0	224
								303	99.0	0.0	99.0	99.0	51.0	259
								Mean =	99.0	0.0	99.0	99.0	46.3	235
3	HALEX GT ATRAZINE NIS	4.39 4 L	SC L	58.0 64.0	oz/a oz/a	POST POST	A A	103	99.0	3.0	99.0	99.0	50.0	254
								202	99.0	4.0	99.0	85.0	39.0	198
								301	90.0	0.0	99.0	85.0	44.0	224
								Mean =	96.0	2.3	99.0	89.7	44.3	225
4	HALEX GT ATRAZINE PROWL H2O NIS	4.39 4 L 3.8	SC L SC	58.0 64.0 32.0	oz/a oz/a oz/a	POST POST POST	A A A	104	99.0	0.0	99.0	99.0	42.0	213
								201	99.0	4.0	99.0	99.0	41.0	208
								302	99.0	0.0	99.0	99.0	45.0	229
								Mean =	99.0	1.3	99.0	99.0	42.7	217

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