

University of Georgia

BAYER FIELD CORN HERBICIDE PROGRAMS

Trial ID: CN-06-18 Study Dir.: KEITH RUCKER
Location: PONDER FARM Investigator: Eric P. Prostko

Reps: 4

Plots: 6 by 25 feet
Mix Size: 1.5 L

Trt No.	Treatment Name	Form	Form Conc	Rate	Rate Unit	Grow Stg	Appl Code	Spray Volume	Amt Product to Measure	Rep 1	2	3	4
1	NTC									101	212	310	406
2	CORVUS	2.63	SC	3.33	oz/a	EPOST A		15 GPA	2.601 mL/mx	102	210	312	404
	ATRAZINE	4	L	64.0	oz/a	EPOST A		15 GPA	49.99 mL/mx				
3	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	EPOST A		15 GPA	25.0 mL/mx	103	206	301	413
	CORVUS	2.63	SC	3.33	oz/a	EPOST A		15 GPA	2.601 mL/mx				
	ATRAZINE	4	L	64.0	oz/a	EPOST A		15 GPA	49.99 mL/mx				
4	LIBERTY	2.34	SL	29.0	oz/a	EPOST A		15 GPA	22.65 mL/mx	104	201	313	415
	CORVUS	2.63	SC	3.33	oz/a	EPOST A		15 GPA	2.601 mL/mx				
	ATRAZINE	4	L	64.0	oz/a	EPOST A		15 GPA	49.99 mL/mx				
5	CAPRENO	3.45	SC	3.0	oz/a	POST B		15 GAL/AC	2.343 mL/mx	105	203	304	412
	ATRAZINE	4	L	64.0	oz/a	POST B		15 GAL/AC	49.99 mL/mx				
	COC			1.0	% v/v	POST B		15 GAL/AC	15.0 mL/mx				
	N-PAK AMS	3.4	SL	2.5	% v/v	POST B		15 GAL/AC	37.5 mL/mx				
6	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST B		15 GAL/AC	25.0 mL/mx	106	208	302	414
	CAPRENO	3.45	SC	3.0	oz/a	POST B		15 GAL/AC	2.343 mL/mx				
	ATRAZINE	4	L	64.0	oz/a	POST B		15 GAL/AC	49.99 mL/mx				
7	LIBERTY	2.34	SL	29.0	oz/a	POST B		15 GAL/AC	22.65 mL/mx	107	215	314	401
	CAPRENO	3.45	SC	3.0	oz/a	POST B		15 GAL/AC	2.343 mL/mx				
	ATRAZINE	4	L	64.0	oz/a	POST B		15 GAL/AC	49.99 mL/mx				
8	LAUDIS	3.5	SC	3.0	oz/a	POST B		15 GAL/AC	2.343 mL/mx	108	213	311	407
	ATRAZINE	4	L	64.0	oz/a	POST B		15 GAL/AC	49.99 mL/mx				
	MSO			1.0	% v/v	POST B		15 GAL/AC	15.0 mL/mx				
	N-PAK AMS	3.4	SL	2.5	% v/v	POST B		15 GAL/AC	37.5 mL/mx				
9	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST B		15 GAL/AC	25.0 mL/mx	109	211	309	405
	LAUDIS	3.5	SC	3.0	oz/a	POST B		15 GAL/AC	2.343 mL/mx				
	ATRAZINE	4	L	64.0	oz/a	POST B		15 GAL/AC	49.99 mL/mx				
10	LIBERTY	2.34	SL	29.0	oz/a	POST B		15 GAL/AC	22.65 mL/mx	110	204	305	409
	LAUDIS	3.5	SC	3.0	oz/a	POST B		15 GAL/AC	2.343 mL/mx				
	ATRAZINE	4	L	64.0	oz/a	POST B		15 GAL/AC	49.99 mL/mx				
11	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST B		15 GAL/AC	25.0 mL/mx	111	205	306	402
	ATRAZINE	4	L	64.0	oz/a	POST B		15 GAL/AC	49.99 mL/mx				
	PROWL H20	3.8	SC	32.0	oz/a	POST B		15 GAL/AC	25.0 mL/mx				
12	STEADFAST Q	37.7	DG	1.5	oz/a	POST B		15 GAL/AC	1.123 g/mx	112	207	315	408
	ATRAZINE	4	L	64.0	oz/a	POST B		15 GAL/AC	49.99 mL/mx				
	COC			1.0	% v/v	POST B		15 GAL/AC	15.0 mL/mx				
13	REVULIN Q	51.2	DG	3.4	oz/a	POST B		15 GAL/AC	2.546 g/mx	113	202	303	411
	ATRAZINE	4	L	64.0	oz/a	POST B		15 GAL/AC	49.99 mL/mx				
	COC			1.0	% v/v	POST B		15 GAL/AC	15.0 mL/mx				
14	HALEX GT	4.39	SC	58.0	oz/a	POST B		15 GAL/AC	45.31 mL/mx	114	209	308	403
	ATRAZINE	4	L	64.0	oz/a	POST B		15 GAL/AC	49.99 mL/mx				
	NIS			0.25	% v/v	POST B		15 GAL/AC	3.75 mL/mx				
15	LIBERTY	2.34	SL	29.0	oz/a	POST B		15 GAL/AC	22.65 mL/mx	115	214	307	410
	ATRAZINE	4	L	64.0	oz/a	POST B		15 GAL/AC	49.99 mL/mx				
	PROWL H20	3.8	SC	32.0	oz/a	POST B		15 GAL/AC	25.0 mL/mx				

Sort Order: Treatment

Trial Comments

CORVUS = ISOXAFLUTOLE (1.88 LBS) + THIENCARBAZONE (0.75 LBS) + CYPROSULFAMIDE

CAPRENO = TEMBOTRIONE (2.88 LBS) + THIENCARBAZONE (0.57 LBS) + ISOXADIFEN

STEADFAST Q = NICOSULFURON (25.2%) + RIMSULFURON (12.5%) + ISOXADIFEN

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

NIS = INDUCE (HELENA)

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COC = AGRIDEX (HELENA)
MSO = MES 100 (DREXEL)

ANNUAL GRASS = A NON-UNIFORM MIXTURE OF TEXAS PANICUM, CRABGRASS, GOOSEGRASS, AND CROWFOOTGRASS.

HARVEST MOISTURE: 17.82%
YIELDS ADJUSTED TO 15.5%

MISSING YIELD DATA IN PLOTS 101 AND 113 DUE TO SCALE/COMBINE PROBLEMS.

SUMMARY:

- 1) SIGNIFICANT CORN STUNTING WAS OBSERVED WITH ALL EPOST TREATMENTS OF CORVUS.
- 2) POST TREATMENTS OF CAPRENO ALSO CAUSED SLIGHT CORN STUNTING.
- 3) ANNUAL GRASS AND PALMER AMARANTH CONTROL WAS EXCELLENT (>92%) WITH ALL TREATMENTS.
- 4) NO YIELD EFFECTS WERE OBSERVED ($P=0.3088$).

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BAYER FIELD CORN HERBICIDE PROGRAMS

Trial ID: CN-06-18 Study Dir.: KEITH RUCKER
Location: PONDER FARM Investigator: Eric P. Prostko

GENERAL TRIAL INFORMATION

Study Director: KEITH RUCKER **Title:** _____ **Postal Code:** _____
Affiliation: _____
Investigator: Eric P. Prostko **Title:** _____ **Postal Code:** _____
Affiliation: _____
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 PANICUM + CRABGRASS
Weed 3: ARAHY VOLUNTEER PEANUT **4.** RAPRA WILD RADISH
Crop 1: ZEAMA FIELD CORN **Variety:** PIONEER 1870YHR **Planting Date:** Mar-27-18
Planting Method: MONOSEM **Rate:** 363000 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:** 4

Site Type: _____
Tillage Type: CONVENTIONAL **Study Design:** RACOB
Trial Initiation Comments: _____

Previous: Crops **Pesticides** **Year**
1. COTTON 2017 _____

MAINTENANCE

Field Prep./Maintenance: _____
No. **Date** **Treatment Name** **Form** **Form** **Form** **Rate** **Unit**
1. _____

SOIL DESCRIPTION

Texture: SAND **% OM:** 0.62 **% Sand:** 94 **% Silt:** 2 **% Clay:** 4
pH: 6.2 **CEC:** 2.9 **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		
8. Apr-22-18		0.33	IN	RAINFALL		
9. Apr-23-18		1.18	IN	RAINFALL		
10. May-4-18		0.5	IN	SPRINKLER - LATERAL MOVE		
11. May-7-18		0.5	IN	SPRINKLER - LATERAL MOVE		
12. May-9-18		0.5	IN	SPRINKLER - LATERAL MOVE		

Overall Moisture Conditions: _____
Closest Weather Station: _____ **Distance:** _____ **Unit:** _____

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APPLICATION DESCRIPTION									
		A	B	C	D	E	F		
Application Date:	Apr-11-18	Apr-24-18							
Time of Day:	7:30 AM	7:32 AM							
Application Method:	BROADCAST	BROADCAST							
Application Timing:	EPOST	POST							
Applic. Placement:	FOLIAGE	FOLIAGE							
Air Temp., Unit:	47 F	58 F							
% Relative Humidity:	93	94							
Wind Velocity, Unit:	1 MPH	4 MPH							
Dew Presence (Y/N):	Y	Y							
Water Hardness:	--	--							
Soil Temp., Unit:	56 F	63 F							
Soil Moisture:	OPTIMUM	OPTIMUM							
% Cloud Cover:	80	0							

CROP STAGE AT EACH APPLICATION									
		A	B	C	D	E	F		
Crop 1	Stage: ZEAMA								
Stage Scale:	V2:3-4 LF	V5:6 LF							
Height, Unit:	2 IN	5 IN							

WEED STAGE AT EACH APPLICATION									
		A	B	C	D	E	F		
Weed 1	Stage: AMAPA	0.5"	1-3"						
Stage Scale:									
Density, Unit:									
Weed 2	Stage: AGRASS	0.5"	1-3"						
Stage Scale:									
Density, Unit:									
Weed 3	Stage: ARAHY	1-2"	1-3"						
Stage Scale:									
Density, Unit:									
Weed 4	Stage: RAPRA	0.5"	1-5"						
Stage Scale:									
Density, Unit:									

APPLICATION EQUIPMENT									
		A	B	C	D	E	F		
Appl. Equipment:	BACKPACK	SAME AS A							
Operating Pressure:	40								
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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BAYER FIELD CORN HERBICIDE PROGRAMS												
Trial ID: CN-06-18			Study Dir.: KEITH RUCKER									
Location: PONDER FARM			Investigator: Eric P. Prostko									
Weed Code						-----	AMAPA	AGRASS	-----	AMAPA	AGRASS	
Crop Code						ZEAMA	-----	-----	ZEAMA	-----	-----	
Part Rated						CROP -			CROP -			
Rating Data Type						STUNTING	CONTROL	CONTROL	STUNTING	CONTROL	CONTROL	
Rating Unit						PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	
Rating Date						Apr-20-18	Apr-20-18	Apr-20-18	May-2-18	May-2-18	May-2-18	
PRM Data Type												
# Subsamples, Dec.												
Trt	Treatment	Form	Form	Rate	Grow	Appl						
No.	Name	Conc	Type	Unit	Stg	Code	1	2	3	4	5	6
1	NTC						0.0 d	0.0 b	0.0 b	0.0 b	0.0 b	0.0 c
2	CORVUS	2.63	SC	3.33 oz/a	EPOST	A	10.0 c	99.0 a	99.0 a	16.3 ab	99.0 a	99.0 a
	ATRAZINE	4 L		64.0 oz/a	EPOST	A						
3	ROUNDUP P-MAX	5.5	SL	32.0 oz/a	EPOST	A	15.0 b	99.0 a	99.0 a	30.0 a	99.0 a	99.0 a
	CORVUS	2.63	SC	3.33 oz/a	EPOST	A						
	ATRAZINE	4 L		64.0 oz/a	EPOST	A						
4	LIBERTY	2.34	SL	29.0 oz/a	EPOST	A	21.3 a	99.0 a	99.0 a	31.3 a	99.0 a	99.0 a
	CORVUS	2.63	SC	3.33 oz/a	EPOST	A						
	ATRAZINE	4 L		64.0 oz/a	EPOST	A						
5	CAPRENO	3.45	SC	3.0 oz/a	POST	B	0.0 d	0.0 b	0.0 b	7.5 b	99.0 a	99.0 a
	ATRAZINE	4 L		64.0 oz/a	POST	B						
	COC			1.0 % v/v	POST	B						
	N-PAK AMS	3.4	SL	2.5 % v/v	POST	B						
6	ROUNDUP P-MAX	5.5	SL	32.0 oz/a	POST	B	0.0 d	0.0 b	0.0 b	15.0 ab	99.0 a	99.0 a
	CAPRENO	3.45	SC	3.0 oz/a	POST	B						
	ATRAZINE	4 L		64.0 oz/a	POST	B						
7	LIBERTY	2.34	SL	29.0 oz/a	POST	B	0.0 d	0.0 b	0.0 b	10.0 b	99.0 a	99.0 a
	CAPRENO	3.45	SC	3.0 oz/a	POST	B						
	ATRAZINE	4 L		64.0 oz/a	POST	B						
8	LAUDIS	3.5	SC	3.0 oz/a	POST	B	0.0 d	0.0 b	0.0 b	0.0 b	99.0 a	99.0 a
	ATRAZINE	4 L		64.0 oz/a	POST	B						
	MSO			1.0 % v/v	POST	B						
	N-PAK AMS	3.4	SL	2.5 % v/v	POST	B						
9	ROUNDUP P-MAX	5.5	SL	32.0 oz/a	POST	B	0.0 d	0.0 b	0.0 b	7.5 b	99.0 a	99.0 a
	LAUDIS	3.5	SC	3.0 oz/a	POST	B						
	ATRAZINE	4 L		64.0 oz/a	POST	B						
10	LIBERTY	2.34	SL	29.0 oz/a	POST	B	0.0 d	0.0 b	0.0 b	2.5 b	99.0 a	99.0 a
	LAUDIS	3.5	SC	3.0 oz/a	POST	B						
	ATRAZINE	4 L		64.0 oz/a	POST	B						
11	ROUNDUP P-MAX	5.5	SL	32.0 oz/a	POST	B	0.0 d	0.0 b	0.0 b	5.0 b	99.0 a	98.0 a
	ATRAZINE	4 L		64.0 oz/a	POST	B						
	PROWL H2O	3.8	SC	32.0 oz/a	POST	B						
12	STEADFAST Q	37.7	DG	1.5 oz/a	POST	B	0.0 d	0.0 b	0.0 b	5.0 b	99.0 a	83.5 b
	ATRAZINE	4 L		64.0 oz/a	POST	B						
	COC			1.0 % v/v	POST	B						
13	REVULIN Q	51.2	DG	3.4 oz/a	POST	B	0.0 d	0.0 b	0.0 b	5.0 b	99.0 a	95.5 a
	ATRAZINE	4 L		64.0 oz/a	POST	B						
	COC			1.0 % v/v	POST	B						
14	HALEX GT	4.39	SC	58.0 oz/a	POST	B	0.0 d	0.0 b	0.0 b	2.5 b	99.0 a	99.0 a
	ATRAZINE	4 L		64.0 oz/a	POST	B						
	NIS			0.25 % v/v	POST	B						
15	LIBERTY	2.34	SL	29.0 oz/a	POST	B	0.0 d	0.0 b	0.0 b	5.0 b	99.0 a	98.0 a
	ATRAZINE	4 L		64.0 oz/a	POST	B						
	PROWL H2O	3.8	SC	32.0 oz/a	POST	B						
Tukey's HSD P=.10							3.86	.	.	19.19	.	8.23
Standard Deviation							1.65	0.00	0.00	8.19	0.00	3.51
CV							53.47	0.0	0.0	86.24	0.0	3.86
Grand Mean							3.08	19.80	19.80	9.50	92.40	91.00
Levene's F							5.204	0.00	0.00	2.786	0.00	2.969
Levene's Prob(F)							0.001*	0.00*	0.00*	0.005*	0.00*	0.003*
Replicate F							0.562	0.000	0.000	0.836	0.000	1.073
Replicate Prob(F)							0.6430	1.0000	1.0000	0.4818	1.0000	0.3707
Treatment F							66.635	0.000	0.000	5.691	0.000	210.598
Treatment Prob(F)							0.0001	1.0000	1.0000	0.0001	1.0000	0.0001

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

Missing data estimates are included in columns: Average=3,12,13

Could not calculate Tukey's HSD (% mean diff) for columns 2,3,5,8,9,10 because error mean square = 0.

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Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date PRM Data Type # Subsamples, Dec.							----- ZEAMA CROP - STUNTING PERCENT May-16-18	AMAPA ----- CONTROL PERCENT May-16-18	AGRASS ----- CONTROL PERCENT May-16-18	AMAPA ----- CONTROL PERCENT Jun-12-18	AGRASS ----- CONTROL PERCENT Jun-12-18	----- ZEAMA PLOT - YIELD LBS/PLOT Sep-5-18	----- ZEAMA PLOT - YIELD BU/A Sep-5-18 TY1 - 0
Trt	Treatment	Form	Form	Rate	Grow	Appl	7	8	9	10	11	12	13
No.	Name	Conc	Type	Rate	Stg	Code							
1	NTC						0.0 a	0.0 b	0.0 b	0.0 b	0.0 b	44.3 a	224 a
2	CORVUS ATRAZINE	2.63 4 L	SC L	3.33 oz/a 64.0 oz/a	EPOST EPOST	A A	6.3 a	99.0 a	99.0 a	99.0 a	93.8 a	46.3 a	233 a
3	ROUNDUP P-MAX CORVUS ATRAZINE	5.5 SL 2.63 SC 4 L	SL SC L	32.0 oz/a 3.33 oz/a 64.0 oz/a	EPOST EPOST EPOST	A A A	12.5 a	99.0 a	99.0 a	99.0 a	92.3 a	49.3 a	248 a
4	LIBERTY CORVUS ATRAZINE	2.34 SL 2.63 SC 4 L	SL SC L	29.0 oz/a 3.33 oz/a 64.0 oz/a	EPOST EPOST EPOST	A A A	11.3 a	99.0 a	99.0 a	99.0 a	93.8 a	47.0 a	237 a
5	CAPRENO ATRAZINE COC N-PAK AMS	3.45 SC 4 L 3.4 SL	SC L SL	3.0 oz/a 64.0 oz/a 1.0 % v/v 2.5 % v/v	POST POST POST POST	B B B B	0.0 a	99.0 a	99.0 a	99.0 a	98.0 a	46.5 a	235 a
6	ROUNDUP P-MAX CAPRENO ATRAZINE	5.5 SL 3.45 SC 4 L	SL SC L	32.0 oz/a 3.0 oz/a 64.0 oz/a	POST POST POST	B B B	6.3 a	99.0 a	99.0 a	99.0 a	96.0 a	47.0 a	237 a
7	LIBERTY CAPRENO ATRAZINE	2.34 SL 3.45 SC 4 L	SL SC L	29.0 oz/a 3.0 oz/a 64.0 oz/a	POST POST POST	B B B	2.5 a	99.0 a	99.0 a	99.0 a	98.0 a	44.3 a	223 a
8	LAUDIS ATRAZINE MSO N-PAK AMS	3.5 SC 4 L 3.4 SL	SC L SL	3.0 oz/a 64.0 oz/a 1.0 % v/v 2.5 % v/v	POST POST POST POST	B B B B	0.0 a	99.0 a	99.0 a	99.0 a	93.8 a	46.0 a	232 a
9	ROUNDUP P-MAX LAUDIS ATRAZINE	5.5 SL 3.5 SC 4 L	SL SC L	32.0 oz/a 3.0 oz/a 64.0 oz/a	POST POST POST	B B B	12.5 a	99.0 a	99.0 a	99.0 a	97.0 a	46.5 a	235 a
10	LIBERTY LAUDIS ATRAZINE	2.34 SL 3.5 SC 4 L	SL SC L	29.0 oz/a 3.0 oz/a 64.0 oz/a	POST POST POST	B B B	12.5 a	99.0 a	99.0 a	99.0 a	92.3 a	47.0 a	237 a
11	ROUNDUP P-MAX ATRAZINE PROWL H20	5.5 SL 4 L 3.8 SC	SL L SC	32.0 oz/a 64.0 oz/a 32.0 oz/a	POST POST POST	B B B	3.8 a	99.0 a	99.0 a	99.0 a	96.0 a	49.3 a	248 a
12	STEADFAST Q ATRAZINE COC	37.7 DG 4 L	DG L	1.5 oz/a 64.0 oz/a 1.0 % v/v	POST POST POST	B B B	5.0 a	99.0 a	99.0 a	99.0 a	96.0 a	48.0 a	242 a
13	REVULIN Q ATRAZINE COC	51.2 DG 4 L	DG L	3.4 oz/a 64.0 oz/a 1.0 % v/v	POST POST POST	B B B	0.0 a	99.0 a	99.0 a	99.0 a	98.0 a	49.3 a	249 a
14	HALEX GT ATRAZINE NIS	4.39 SC 4 L	SC L	58.0 oz/a 64.0 oz/a 0.25 % v/v	POST POST POST	B B B	2.5 a	99.0 a	99.0 a	99.0 a	97.0 a	49.3 a	248 a
15	LIBERTY ATRAZINE PROWL H20	2.34 SL 4 L 3.8 SC	SL L SC	29.0 oz/a 64.0 oz/a 32.0 oz/a	POST POST POST	B B B	0.0 a	99.0 a	99.0 a	99.0 a	96.0 a	48.0 a	242 a
Tukey's HSD P=.10							23.31	.	.	.	6.84	7.12	35.9
Standard Deviation							9.95	0.00	0.00	0.00	2.92	3.03	15.3
CV							199.05	0.0	0.0	0.0	3.27	6.42	6.42
Grand Mean							5.00	92.40	92.40	92.40	89.18	47.19	238.0
Levene's F							0.788	0.00	0.00	0.00	1.812	0.82	0.82
Levene's Prob(F)							0.676	0.00*	0.00*	0.00*	0.067	0.645	0.645
Replicate F							1.144	0.000	0.000	0.000	1.394	2.226	2.226
Replicate Prob(F)							0.3424	1.0000	1.0000	1.0000	0.2580	0.1000	0.1000
Treatment F							1.010	0.000	0.000	0.000	287.394	1.206	1.206
Treatment Prob(F)							0.4622	1.0000	1.0000	1.0000	0.0001	0.3088	0.3088

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

Missing data estimates are included in columns: Average=3,12,13

Could not calculate Tukey's HSD (% mean diff) for columns 2,3,5,8,9,10 because error mean square = 0.

University of Georgia

BAYER FIELD CORN HERBICIDE PROGRAMS	
Trial ID: CN-06-18	Study Dir.: KEITH RUCKER
Location: PONDER FARM	Investigator: Eric P. Prostko
<u>Weed Code</u> AMAPA = AMARANTH, PALMER / AMARANTHUS PALMERI S.WATS.	
<u>PRM Data Type</u> TY1 = 5.043337*[12]	

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BAYER FIELD CORN HERBICIDE PROGRAMS														
Trial ID: CN-06-18		Study Dir.: KEITH RUCKER												
Location: PONDER FARM		Investigator: Eric P. Prostko												
Weed Code							-----	AMAPA	AGRASS	-----	AMAPA	AGRASS		
Crop Code							ZEAMA	-----	-----	ZEAMA	-----	-----		
Part Rated							CROP -	CONTROL	CONTROL	CROP -	CONTROL	CONTROL		
Rating Data Type							STUNTING	PERCENT	PERCENT	STUNTING	PERCENT	PERCENT		
Rating Unit							Apr-20-18	Apr-20-18	Apr-20-18	May-2-18	May-2-18	May-2-18		
Rating Date														
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	0.0	0.0	0.0
							212		0.0	0.0	0.0	0.0	0.0	0.0
							310		0.0	0.0	0.0	0.0	0.0	0.0
							406		0.0	0.0	0.0	0.0	0.0	0.0
							Mean =		0.0	0.0	0.0	0.0	0.0	0.0
2	CORVUS	2.63	SC	3.33	oz/a	EPOST A	102		10.0	99.0	99.0	15.0	99.0	99.0
	ATRAZINE	4	L	64.0	oz/a	EPOST A	210		10.0	99.0	99.0	30.0	99.0	99.0
							312		10.0	99.0	99.0	10.0	99.0	99.0
							404		10.0	99.0	99.0	10.0	99.0	99.0
							Mean =		10.0	99.0	99.0	16.3	99.0	99.0
3	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	EPOST A	103		10.0	99.0	99.0	30.0	99.0	99.0
	CORVUS	2.63	SC	3.33	oz/a	EPOST A	206		15.0	99.0	99.0	40.0	99.0	99.0
	ATRAZINE	4	L	64.0	oz/a	EPOST A	301		20.0	99.0	99.0	20.0	99.0	99.0
							413		15.0	99.0	99.0	30.0	99.0	99.0
							Mean =		15.0	99.0	99.0	30.0	99.0	99.0
4	LIBERTY	2.34	SL	29.0	oz/a	EPOST A	104		20.0	99.0	99.0	30.0	99.0	99.0
	CORVUS	2.63	SC	3.33	oz/a	EPOST A	201		25.0	99.0	99.0	40.0	99.0	99.0
	ATRAZINE	4	L	64.0	oz/a	EPOST A	313		15.0	99.0	99.0	30.0	99.0	99.0
							415		25.0	99.0	99.0	25.0	99.0	99.0
							Mean =		21.3	99.0	99.0	31.3	99.0	99.0
5	CAPRENO	3.45	SC	3.0	oz/a	POST B	105		0.0	0.0	0.0	0.0	99.0	99.0
	ATRAZINE	4	L	64.0	oz/a	POST B	203		0.0	0.0	0.0	0.0	99.0	99.0
	COC			1.0	% v/v	POST B	304		0.0	0.0	0.0	10.0	99.0	99.0
	N-PAK AMS	3.4	SL	2.5	% v/v	POST B	412		0.0	0.0	0.0	20.0	99.0	99.0
							Mean =		0.0	0.0	0.0	7.5	99.0	99.0
6	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST B	106		0.0	0.0	0.0	0.0	99.0	99.0
	CAPRENO	3.45	SC	3.0	oz/a	POST B	208		0.0	0.0	0.0	30.0	99.0	99.0
	ATRAZINE	4	L	64.0	oz/a	POST B	302		0.0	0.0	0.0	0.0	99.0	99.0
							414		0.0	0.0	0.0	30.0	99.0	99.0
							Mean =		0.0	0.0	0.0	15.0	99.0	99.0
7	LIBERTY	2.34	SL	29.0	oz/a	POST B	107		0.0	0.0	0.0	0.0	99.0	99.0
	CAPRENO	3.45	SC	3.0	oz/a	POST B	215		0.0	0.0	0.0	0.0	99.0	99.0
	ATRAZINE	4	L	64.0	oz/a	POST B	314		0.0	0.0	0.0	20.0	99.0	99.0
							401		0.0	0.0	0.0	20.0	99.0	99.0
							Mean =		0.0	0.0	0.0	10.0	99.0	99.0
8	LAUDIS	3.5	SC	3.0	oz/a	POST B	108		0.0	0.0	0.0	0.0	99.0	99.0
	ATRAZINE	4	L	64.0	oz/a	POST B	213		0.0	0.0	0.0	0.0	99.0	99.0
	MSO			1.0	% v/v	POST B	311		0.0	0.0	0.0	0.0	99.0	99.0
	N-PAK AMS	3.4	SL	2.5	% v/v	POST B	407		0.0	0.0	0.0	0.0	99.0	99.0
							Mean =		0.0	0.0	0.0	0.0	99.0	99.0
9	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST B	109		0.0	0.0	0.0	10.0	99.0	99.0
	LAUDIS	3.5	SC	3.0	oz/a	POST B	211		0.0	0.0	0.0	0.0	99.0	99.0
	ATRAZINE	4	L	64.0	oz/a	POST B	309		0.0	0.0	0.0	10.0	99.0	99.0
							405		0.0	0.0	0.0	10.0	99.0	99.0
							Mean =		0.0	0.0	0.0	7.5	99.0	99.0
10	LIBERTY	2.34	SL	29.0	oz/a	POST B	110		0.0	0.0	0.0	10.0	99.0	99.0
	LAUDIS	3.5	SC	3.0	oz/a	POST B	204		0.0	0.0	0.0	0.0	99.0	99.0
	ATRAZINE	4	L	64.0	oz/a	POST B	305		0.0	0.0	0.0	0.0	99.0	99.0
							409		0.0	0.0	0.0	0.0	99.0	99.0
							Mean =		0.0	0.0	0.0	2.5	99.0	99.0
11	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST B	111		0.0	0.0	0.0	10.0	99.0	99.0
	ATRAZINE	4	L	64.0	oz/a	POST B	205		0.0	0.0	0.0	0.0	99.0	95.0
	PROWL H20	3.8	SC	32.0	oz/a	POST B	306		0.0	0.0	0.0	0.0	99.0	99.0
							402		0.0	0.0	0.0	10.0	99.0	99.0
							Mean =		0.0	0.0	0.0	5.0	99.0	98.0

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Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date PRM Data Type # Subsamples, Dec.							----- ZEAMA CROP - STUNTING PERCENT Apr-20-18	AMAPA ----- CONTROL PERCENT Apr-20-18	AGRASS ----- CONTROL PERCENT Apr-20-18	----- ZEAMA CROP - STUNTING PERCENT May-2-18	AMAPA ----- CONTROL PERCENT May-2-18	AGRASS ----- CONTROL PERCENT May-2-18		
Trt	Treatment	Form	Form	Rate	Grow	Appl								
No.	Name	Conc	Type	Rate	Unit	Stg	Code	Plot	1	2	3	4	5	6
12	STEADFAST Q	37.7	DG	1.5	oz/a	POST	B	112	0.0	0.0	0.0	0.0	99.0	75.0
	ATRAZINE	4	L	64.0	oz/a	POST	B	207	0.0	0.0	0.0	0.0	99.0	85.0
	COC			1.0	% v/v	POST	B	315	0.0	0.0	0.0	20.0	99.0	75.0
								408	0.0	0.0	0.0	0.0	99.0	99.0
								Mean =	0.0	0.0	0.0	5.0	99.0	83.5
13	REVULIN Q	51.2	DG	3.4	oz/a	POST	B	113	0.0	0.0	0.0	0.0	99.0	99.0
	ATRAZINE	4	L	64.0	oz/a	POST	B	202	0.0	0.0	0.0	10.0	99.0	99.0
	COC			1.0	% v/v	POST	B	303	0.0	0.0	0.0	0.0	99.0	85.0
								411	0.0	0.0	0.0	10.0	99.0	99.0
								Mean =	0.0	0.0	0.0	5.0	99.0	95.5
14	HALEX GT	4.39	SC	58.0	oz/a	POST	B	114	0.0	0.0	0.0	0.0	99.0	99.0
	ATRAZINE	4	L	64.0	oz/a	POST	B	209	0.0	0.0	0.0	0.0	99.0	99.0
	NIS			0.25	% v/v	POST	B	308	0.0	0.0	0.0	10.0	99.0	99.0
								403	0.0	0.0	0.0	0.0	99.0	99.0
								Mean =	0.0	0.0	0.0	2.5	99.0	99.0
15	LIBERTY	2.34	SL	29.0	oz/a	POST	B	115	0.0	0.0	0.0	0.0	99.0	99.0
	ATRAZINE	4	L	64.0	oz/a	POST	B	214	0.0	0.0	0.0	0.0	99.0	99.0
	PROWL H2O	3.8	SC	32.0	oz/a	POST	B	307	0.0	0.0	0.0	10.0	99.0	99.0
								410	0.0	0.0	0.0	10.0	99.0	95.0
								Mean =	0.0	0.0	0.0	5.0	99.0	98.0

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Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date PRM Data Type # Subsamples, Dec.							----- ZEAMA CROP - STUNTING PERCENT May-16-18	AMAPA ----- CONTROL PERCENT May-16-18	AGRASS ----- CONTROL PERCENT May-16-18	AMAPA ----- CONTROL PERCENT Jun-12-18	AGRASS ----- CONTROL PERCENT Jun-12-18	----- ZEAMA PLOT - YIELD LBS/PLOT Sep-5-18
Trt Treatment	Form Form	Rate	Grow	Appl			7	8	9	10	11	12
No. Name	Conc Type	Rate Unit	Stg	Code Plot								
1 NTC					101		0.0	0.0	0.0	0.0	0.0	.
					212		0.0	0.0	0.0	0.0	0.0	49.0
					310		0.0	0.0	0.0	0.0	0.0	42.0
					406		0.0	0.0	0.0	0.0	0.0	42.0
					Mean =		0.0	0.0	0.0	0.0	0.0	44.3
2 CORVUS	2.63 SC	3.33 oz/a	EPOST A	102			0.0	99.0	99.0	99.0	95.0	50.0
ATRAZINE	4 L	64.0 oz/a	EPOST A	210			15.0	99.0	99.0	99.0	90.0	47.0
				312			0.0	99.0	99.0	99.0	95.0	45.0
				404			10.0	99.0	99.0	99.0	95.0	43.0
				Mean =			6.3	99.0	99.0	99.0	93.8	46.3
3 ROUNDUP P-MAX	5.5 SL	32.0 oz/a	EPOST A	103			10.0	99.0	99.0	99.0	95.0	51.0
CORVUS	2.63 SC	3.33 oz/a	EPOST A	206			20.0	99.0	99.0	99.0	90.0	47.0
ATRAZINE	4 L	64.0 oz/a	EPOST A	301			10.0	99.0	99.0	99.0	99.0	48.0
				413			10.0	99.0	99.0	99.0	85.0	51.0
				Mean =			12.5	99.0	99.0	99.0	92.3	49.3
4 LIBERTY	2.34 SL	29.0 oz/a	EPOST A	104			15.0	99.0	99.0	99.0	95.0	47.0
CORVUS	2.63 SC	3.33 oz/a	EPOST A	201			10.0	99.0	99.0	99.0	95.0	46.0
ATRAZINE	4 L	64.0 oz/a	EPOST A	313			10.0	99.0	99.0	99.0	90.0	44.0
				415			10.0	99.0	99.0	99.0	95.0	51.0
				Mean =			11.3	99.0	99.0	99.0	93.8	47.0
5 CAPRENO	3.45 SC	3.0 oz/a	POST B	105			0.0	99.0	99.0	99.0	95.0	50.0
ATRAZINE	4 L	64.0 oz/a	POST B	203			0.0	99.0	99.0	99.0	99.0	42.0
COC		1.0 % v/v	POST B	304			0.0	99.0	99.0	99.0	99.0	50.0
N-PAK AMS	3.4 SL	2.5 % v/v	POST B	412			0.0	99.0	99.0	99.0	99.0	44.0
				Mean =			0.0	99.0	99.0	99.0	98.0	46.5
6 ROUNDUP P-MAX	5.5 SL	32.0 oz/a	POST B	106			0.0	99.0	99.0	99.0	95.0	45.0
CAPRENO	3.45 SC	3.0 oz/a	POST B	208			15.0	99.0	99.0	99.0	95.0	48.0
ATRAZINE	4 L	64.0 oz/a	POST B	302			0.0	99.0	99.0	99.0	99.0	50.0
				414			10.0	99.0	99.0	99.0	95.0	45.0
				Mean =			6.3	99.0	99.0	99.0	96.0	47.0
7 LIBERTY	2.34 SL	29.0 oz/a	POST B	107			0.0	99.0	99.0	99.0	95.0	44.0
CAPRENO	3.45 SC	3.0 oz/a	POST B	215			0.0	99.0	99.0	99.0	99.0	44.0
ATRAZINE	4 L	64.0 oz/a	POST B	314			0.0	99.0	99.0	99.0	99.0	46.0
				401			10.0	99.0	99.0	99.0	99.0	43.0
				Mean =			2.5	99.0	99.0	99.0	98.0	44.3
8 LAUDIS	3.5 SC	3.0 oz/a	POST B	108			0.0	99.0	99.0	99.0	90.0	51.0
ATRAZINE	4 L	64.0 oz/a	POST B	213			0.0	99.0	99.0	99.0	95.0	47.0
MSO		1.0 % v/v	POST B	311			0.0	99.0	99.0	99.0	95.0	46.0
N-PAK AMS	3.4 SL	2.5 % v/v	POST B	407			0.0	99.0	99.0	99.0	95.0	40.0
				Mean =			0.0	99.0	99.0	99.0	93.8	46.0
9 ROUNDUP P-MAX	5.5 SL	32.0 oz/a	POST B	109			50.0	99.0	99.0	99.0	95.0	48.0
LAUDIS	3.5 SC	3.0 oz/a	POST B	211			0.0	99.0	99.0	99.0	99.0	46.0
ATRAZINE	4 L	64.0 oz/a	POST B	309			0.0	99.0	99.0	99.0	95.0	49.0
				405			0.0	99.0	99.0	99.0	99.0	43.0
				Mean =			12.5	99.0	99.0	99.0	97.0	46.5
10 LIBERTY	2.34 SL	29.0 oz/a	POST B	110			50.0	99.0	99.0	99.0	85.0	50.0
LAUDIS	3.5 SC	3.0 oz/a	POST B	204			0.0	99.0	99.0	99.0	99.0	43.0
ATRAZINE	4 L	64.0 oz/a	POST B	305			0.0	99.0	99.0	99.0	95.0	50.0
				409			0.0	99.0	99.0	99.0	90.0	45.0
				Mean =			12.5	99.0	99.0	99.0	92.3	47.0
11 ROUNDUP P-MAX	5.5 SL	32.0 oz/a	POST B	111			5.0	99.0	99.0	99.0	95.0	48.0
ATRAZINE	4 L	64.0 oz/a	POST B	205			0.0	99.0	99.0	99.0	99.0	52.0
PROWL H20	3.8 SC	32.0 oz/a	POST B	306			0.0	99.0	99.0	99.0	95.0	50.0
				402			10.0	99.0	99.0	99.0	95.0	47.0
				Mean =			3.8	99.0	99.0	99.0	96.0	49.3

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Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date PRM Data Type # Subsamples, Dec.							----- ZEAMA CROP - STUNTING PERCENT May-16-18	AMAPA ----- CONTROL PERCENT May-16-18	AGRASS ----- CONTROL PERCENT May-16-18	AMAPA ----- CONTROL PERCENT Jun-12-18	AGRASS ----- CONTROL PERCENT Jun-12-18	----- ZEAMA PLOT - YIELD LBS/PLOT Sep-5-18		
Trt	Treatment	Form	Form	Rate	Grow	Appl								
No.	Name	Conc	Type	Rate	Unit	Stg	Code	Plot	7	8	9	10	11	12
12	STEADFAST Q ATRAZINE COC	37.7 4	DG L	1.5 64.0 1.0	oz/a oz/a % v/v	POST POST POST	B	112	0.0	99.0	99.0	99.0	95.0	55.0
							B	207	10.0	99.0	99.0	99.0	95.0	47.0
							B	315	10.0	99.0	99.0	99.0	99.0	47.0
								408	0.0	99.0	99.0	99.0	95.0	43.0
								Mean =	5.0	99.0	99.0	99.0	96.0	48.0
13	REVULIN Q ATRAZINE COC	51.2 4	DG L	3.4 64.0 1.0	oz/a oz/a % v/v	POST POST POST	B	113	0.0	99.0	99.0	99.0	95.0	.
							B	202	0.0	99.0	99.0	99.0	99.0	49.0
							B	303	0.0	99.0	99.0	99.0	99.0	48.0
								411	0.0	99.0	99.0	99.0	99.0	51.0
								Mean =	0.0	99.0	99.0	99.0	98.0	49.3
14	HALEX GT ATRAZINE NIS	4.39 4	SC L	58.0 64.0 0.25	oz/a oz/a % v/v	POST POST POST	B	114	0.0	99.0	99.0	99.0	99.0	47.0
							B	209	0.0	99.0	99.0	99.0	95.0	54.0
							B	308	0.0	99.0	99.0	99.0	99.0	46.0
								403	10.0	99.0	99.0	99.0	95.0	50.0
								Mean =	2.5	99.0	99.0	99.0	97.0	49.3
15	LIBERTY ATRAZINE PROWL H20	2.34 4 3.8	SL L SC	29.0 64.0 32.0	oz/a oz/a oz/a	POST POST POST	B	115	0.0	99.0	99.0	99.0	99.0	48.0
							B	214	0.0	99.0	99.0	99.0	95.0	48.0
							B	307	0.0	99.0	99.0	99.0	95.0	49.0
								410	0.0	99.0	99.0	99.0	95.0	47.0
								Mean =	0.0	99.0	99.0	99.0	96.0	48.0

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Weed Code										-----
Crop Code										ZEAMA
Part Rated										PLOT -
Rating Data Type										YIELD
Rating Unit										BU/A
Rating Date										Sep-5-18
PRM Data Type										TY1
# Subsamples, Dec.										- 0
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit Unit	Grow Stg	Appl Code	Plot		13
1	NTC							101	.	
								212	247	
								310	212	
								406	212	
								Mean =	224	
2	CORVUS	2.63	SC	3.33	oz/a	EPOST A	102		252	
	ATRAZINE	4	L	64.0	oz/a	EPOST A	210		237	
							312		227	
							404		217	
							Mean =		233	
3	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	EPOST A	103		257	
	CORVUS	2.63	SC	3.33	oz/a	EPOST A	206		237	
	ATRAZINE	4	L	64.0	oz/a	EPOST A	301		242	
							413		257	
							Mean =		248	
4	LIBERTY	2.34	SL	29.0	oz/a	EPOST A	104		237	
	CORVUS	2.63	SC	3.33	oz/a	EPOST A	201		232	
	ATRAZINE	4	L	64.0	oz/a	EPOST A	313		222	
							415		257	
							Mean =		237	
5	CAPRENO	3.45	SC	3.0	oz/a	POST B	105		252	
	ATRAZINE	4	L	64.0	oz/a	POST B	203		212	
	COC			1.0	% v/v	POST B	304		252	
	N-PAK AMS	3.4	SL	2.5	% v/v	POST B	412		222	
							Mean =		235	
6	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST B	106		227	
	CAPRENO	3.45	SC	3.0	oz/a	POST B	208		242	
	ATRAZINE	4	L	64.0	oz/a	POST B	302		252	
							414		227	
							Mean =		237	
7	LIBERTY	2.34	SL	29.0	oz/a	POST B	107		222	
	CAPRENO	3.45	SC	3.0	oz/a	POST B	215		222	
	ATRAZINE	4	L	64.0	oz/a	POST B	314		232	
							401		217	
							Mean =		223	
8	LAUDIS	3.5	SC	3.0	oz/a	POST B	108		257	
	ATRAZINE	4	L	64.0	oz/a	POST B	213		237	
	MSO			1.0	% v/v	POST B	311		232	
	N-PAK AMS	3.4	SL	2.5	% v/v	POST B	407		202	
							Mean =		232	
9	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST B	109		242	
	LAUDIS	3.5	SC	3.0	oz/a	POST B	211		232	
	ATRAZINE	4	L	64.0	oz/a	POST B	309		247	
							405		217	
							Mean =		235	
10	LIBERTY	2.34	SL	29.0	oz/a	POST B	110		252	
	LAUDIS	3.5	SC	3.0	oz/a	POST B	204		217	
	ATRAZINE	4	L	64.0	oz/a	POST B	305		252	
							409		227	
							Mean =		237	
11	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST B	111		242	
	ATRAZINE	4	L	64.0	oz/a	POST B	205		262	
	PROWL H20	3.8	SC	32.0	oz/a	POST B	306		252	
							402		237	
							Mean =		248	

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Weed Code							-----
Crop Code							ZEAMA
Part Rated							PLOT -
Rating Data Type							YIELD
Rating Unit							BU/A
Rating Date							Sep-5-18
PRM Data Type							TY1
# Subsamples, Dec.							- 0
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Grow Stg	Appl Code	Plot
12	STEADFAST Q	37.7	DG	1.5 oz/a	POST	B	112
	ATRAZINE	4	L	64.0 oz/a	POST	B	207
	COC			1.0 % v/v	POST	B	315
							408
							217
							Mean =
							242
13	REVULIN Q	51.2	DG	3.4 oz/a	POST	B	113
	ATRAZINE	4	L	64.0 oz/a	POST	B	202
	COC			1.0 % v/v	POST	B	303
							411
							Mean =
							249
14	HALEX GT	4.39	SC	58.0 oz/a	POST	B	114
	ATRAZINE	4	L	64.0 oz/a	POST	B	209
	NIS			0.25 % v/v	POST	B	308
							403
							Mean =
							248
15	LIBERTY	2.34	SL	29.0 oz/a	POST	B	115
	ATRAZINE	4	L	64.0 oz/a	POST	B	214
	PROWL H20	3.8	SC	32.0 oz/a	POST	B	307
							410
							Mean =
							242

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BAYER FIELD CORN HERBICIDE PROGRAMS	
Trial ID: CN-06-18	Study Dir.: KEITH RUCKER
Location: PONDER FARM	Investigator: Eric P. Prostko
<u>Weed Code</u> AMAPA = AMARANTH, PALMER / AMARANTHUS PALMERI S.WATS.	
<u>PRM Data Type</u> TY1 = 5.043337*[12]	