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ANTHEM FLEX AND ANTHEM MAXX FOR WEED CONTROL IN FIELD CORN Trial ID: CN-10-18 Study Dir.: CRAIG HEIM Location: PONDER FARM Investigator: Eric P. Prostko			
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Reps: 4 Plots: 6 by 25 feet
 Mix Size: 1.5 L

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Grow Stg	Appl Code	Spray Volume	Amt Product to Measure	Rep 1	2	3	4
1	NTC								101	205	309	407
2	ROUNDUP POWER MAX	5.5 SL		32.0 oz/a	EPOST B		15 GPA	25.0 mL/mx	102	209	308	409
	ATRAZINE	4 L		64.0 oz/a	EPOST B		15 GPA	49.99 mL/mx				
	PROWL H2O	3.8 ME		32.0 oz/a	EPOST B		15 GPA	25.0 mL/mx				
3	ANTHEM FLEX	4 SC		4.5 oz/a	PRE	A	15 GPA	3.515 mL/mx	103	206	302	403
	ATRAZINE	4 L		32.0 oz/a	PRE	A	15 GPA	25.0 mL/mx				
	CALLISTO	4 SC		3.0 oz/a	POST	C	15 GAL/AC	2.343 mL/mx				
	ATRAZINE	4 L		16.0 oz/a	POST	C	15 GAL/AC	12.5 mL/mx				
	ROUNDUP POWERMAX	5.5 SL		22.0 oz/a	POST	C	15 GAL/AC	17.19 mL/mx				
	COC			1.0 % v/v	POST	C	15 GAL/AC	15.0 mL/mx				
	N-PAK AMS			2.5 % v/v	POST	C	15 GAL/AC	37.5 mL/mx				
4	ANTHEM MAXX	4.35 SC		4.0 oz/a	PRE	A	15 GPA	3.125 mL/mx	104	202	301	406
	ATRAZINE	4 L		32.0 oz/a	PRE	A	15 GPA	25.0 mL/mx				
	CALLISTO	4 SC		3.0 oz/a	POST	C	15 GAL/AC	2.343 mL/mx				
	ATRAZINE	4 L		16.0 oz/a	POST	C	15 GAL/AC	12.5 mL/mx				
	ROUNDUP POWERMAX	5.5 SL		22.0 oz/a	POST	C	15 GAL/AC	17.19 mL/mx				
	COC			1.0 % v/v	POST	C	15 GAL/AC	15.0 mL/mx				
	N-PAK AMS			2.5 % v/v	POST	C	15 GAL/AC	37.5 mL/mx				
5	ANTHEM FLEX	4 SC		4.5 oz/a	PRE	A	15 GPA	3.515 mL/mx	105	207	306	404
	ATRAZINE	4 L		32.0 oz/a	PRE	A	15 GPA	25.0 mL/mx				
	CALLISTO	4 SC		6.0 oz/a	POST	C	15 GAL/AC	4.687 mL/mx				
	ATRAZINE	4 L		48.0 oz/a	POST	C	15 GAL/AC	37.5 mL/mx				
	ROUNDUP POWERMAX	5.5 SL		22.0 oz/a	POST	C	15 GAL/AC	17.19 mL/mx				
	COC			1.0 % v/v	POST	C	15 GAL/AC	15.0 mL/mx				
	N-PAK AMS			2.5 % v/v	POST	C	15 GAL/AC	37.5 mL/mx				
6	ANTHEM MAXX	4.35 SC		4.0 oz/a	PRE	A	15 GPA	3.125 mL/mx	106	201	303	401
	ATRAZINE	4 L		32.0 oz/a	PRE	A	15 GPA	25.0 mL/mx				
	CALLISTO	4 SC		6.0 oz/a	POST	C	15 GAL/AC	4.687 mL/mx				
	ATRAZINE	4 L		48.0 oz/a	POST	C	15 GAL/AC	37.5 mL/mx				
	ROUNDUP POWERMAX	5.5 SL		22.0 oz/a	POST	C	15 GAL/AC	17.19 mL/mx				
	COC			1.0 % v/v	POST	C	15 GAL/AC	15.0 mL/mx				
	N-PAK AMS			2.5 % v/v	POST	C	15 GAL/AC	37.5 mL/mx				
7	ANTHEM MAXX	4.35 SC		4.0 oz/a	PRE	A	15 GPA	3.125 mL/mx	107	203	304	402
	ATRAZINE	4 L		48.0 oz/a	PRE	A	15 GPA	37.5 mL/mx				
	CALLISTO	4 SC		3.0 oz/a	POST	C	15 GAL/AC	2.343 mL/mx				
	ROUNDUP POWERMAX	5.5 SL		22.0 oz/a	POST	C	15 GAL/AC	17.19 mL/mx				
	COC			1.0 % v/v	POST	C	15 GAL/AC	15.0 mL/mx				
	N-PAK AMS			2.5 % v/v	POST	C	15 GAL/AC	37.5 mL/mx				
8	BICEP II MAGNUM	5.5 L		51.0 oz/a	PRE	A	15 GPA	39.84 mL/mx	108	204	307	405
	HALEX GT	4.39 SC		58.0 oz/a	POST	C	15 GAL/AC	45.31 mL/mx				
	NIS			0.25 % v/v	POST	C	15 GAL/AC	3.75 mL/mx				
9	HALEX GT	4.39 SC		58.0 oz/a	EPOST B		15 GPA	45.31 mL/mx	109	208	305	408
	ATRAZINE	4 L		64.0 oz/a	EPOST B		15 GPA	49.99 mL/mx				
	NIS			0.25 % v/v	EPOST B		15 GPA	3.75 mL/mx				

Sort Order: Treatment

Trial Comments

NIS = INDUCE

COC = AGRIDEX

ANTHEM FLEX = PYROXASULFONE (3.733 LBS) + CARFENTRAZONE (0.267 LBS)

ANTHEM MAXX = PYROXASULFONE (4.174 LBS) + FLUTHIACET (0.126 LBS)

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

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BICEP II MAGNUM = ATRAZINE (3.1 LBS) + S-METOLACHLOR (2.4 LBS)

HARVEST MOISTURE: 16.4%
YIELDS ADJUSTED TO 15.5%.

SUMMARY:

1) PRE APPLICATIONS OF ANTHEM FLEX OR ANTHEM MAXX CAUSED <7% CORN INJURY AND PROVIDED EXCELLENT CONTROL OF ANNUAL GRASS AND PALMER AMARANTH (>96%).

2) POST APPLICATION OF CALLISTO + ATRAZINE + ROUNDUP + COC + AMS CAUSED SIGNIFICANT CORN STUNTING @ 13 DAT.

3) AFTER ALL PRE, EPOST, AND POST TREATMENTS WERE APPLIED PALMER AMARANTH CONTROL WAS EXCELLENT (99%) AND ANNUAL GRASS CONTROL EXCEEDED 84% EXCEPT FOR THE FOLLOWING:

A) ANY TREATMENT THAT CONTAINED ANTHEM MAXX PRE @ 4 OZ/A = 75-79% CONTROL OF ANNUAL GRASSES

B) HALEX GT + ATRAZINE - EPOST = 73% ANNUAL GRASS CONTROL.

4) NO TREATMENT RESULTED IN YIELDS SIGNIFICANTLY DIFFERENT THAN THE NTC (P=

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ANTHEM FLEX AND ANTHEM MAXX FOR WEED
CONTROL IN FIELD CORN
Trial ID: CN-10-18 Study Dir.: CRAIG HEIM
Location: PONDER FARM Investigator: Eric P. Prostko

GENERAL TRIAL INFORMATION

Study Director: CRAIG HEIM **Title:** _____ **Postal Code:** _____
Affiliation: _____
Investigator: Eric P. Prostko **Title:** _____ **Postal Code:** _____
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;GOOSE;CROW
Crop 1: ZEAMA FIELD CORN **Variety:** DKC 70-27 **Planting Date:** Apr-2-18
Planting Method: MONOSEM **Rate:** 36300 SEED/A **Depth:** 2 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. PEANUTS 2017 _____

MAINTENANCE

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

SOIL DESCRIPTION

Texture: SAND **% OM:** _____ **% Sand:** 92 **% Silt:** 4 **% Clay:** 4
pH: 6.0 **CEC:** 2.5 **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-3-18		Apr-17-18		Apr-27-18				
Time of Day:	7:30 AM		8:00 AM		7:30 AM				
Application Method:	BROADCAST		BROADCAST		BROADCAST				
Application Timing:	PRE		EPOST		POST				
Applic. Placement:	SOIL		FOLIAGE		FOLIAGE				
Air Temp., Unit:	57 F		44 F		56 F				
% Relative Humidity:	95		91		100				
Wind Velocity, Unit:	1 MPH		1 MPH		1 MPH				
Dew Presence (Y/N):	Y		Y		Y				
Water Hardness:	--		--		--				
Soil Temp., Unit:	61 F		52 F		63 F				
Soil Moisture:	OPTIMUM		OPTIMUM		OPTIMUM				
% Cloud Cover:	0		0		5				

CROP STAGE AT EACH APPLICATION									
		A	B	C	D	E	F		
Crop 1	Stage: ZEAMA								
Stage Scale:		V1		V5					
Height, Unit:		3	IN	6	IN				

WEED STAGE AT EACH APPLICATION									
		A	B	C	D	E	F		
Weed 1	Stage: AMAPA		0.5" TALL	NONE UP					
Stage Scale:									
Density, Unit:									
Weed 2	Stage: AGRASS		0.5" TALL	1" TALL					
Stage Scale:									
Density, Unit:									

APPLICATION EQUIPMENT									
		A	B	C	D	E	F		
Appl. Equipment:	BACKPACK	BACKPACK		SAME AS B					
Operating Pressure:	25	43							
Nozzle Type:	AIXR	AIXR							
Nozzle Size:	11002	11002							
Nozzle Spacing, Unit:	15	IN 20	IN						
Nozzles/Row:	2								
Band Width, Unit:									
Boom Length, Unit:	60	IN 60	IN						
Boom Height, Unit:	20	IN 20	IN						
Ground Speed, Unit:	3.5	MPH 3.5	MPH						
Incorporation Equip.:									
Hours to Incorp.:									
Incorp. Depth, Unit:									
Carrier:	WATER	WATER							
Spray Volume, Unit:	15	GPA 15	GPA						
Spray pH:									
Propellant:	CO2	CO2							
Tank Mix (Y/N):									

Trt No	Treatment Application Comment

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ANTHEM FLEX AND ANTHEM MAXX FOR WEED CONTROL IN FIELD CORN Trial ID: CN-10-18 Study Dir.: CRAIG HEIM Location: PONDER FARM Investigator: Eric P. Prostko						
Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date Trt-Eval Interval PRM Data Type # Subsamples, Dec.	----- ZEAMA PLANT - STUNTING PERCENT Apr-17-18	AMAPA ----- CONTROL PERCENT Apr-17-18	AGRASS ----- CONTROL PERCENT Apr-17-18	----- ZEAMA PLANT - STUNTING PERCENT Apr-26-18	AGRASS ----- CONTROL PERCENT Apr-26-18	AMAPA ----- CONTROL PERCENT Apr-26-18
Trt Treatment No. Name Form Conc Type Rate Rate Unit Grow Stg Appl Code	1	2	3	4	5	6
1 NTC	0.0 a	0.0 b	0.0 b	0.0 a	0.0 b	0.0 b
2 ROUNDUP POWER MAX ATRAZINE PROWL H20	0.0 a	0.0 b	0.0 b	0.0 a	98.0 a	99.0 a
3 ANTHEM FLEX ATRAZINE CALLISTO ATRAZINE ROUNDUP POWERMAX COC N-PAK AMS	2.5 a	99.0 a	99.0 a	6.3 a	99.0 a	99.0 a
4 ANTHEM MAXX ATRAZINE CALLISTO ATRAZINE ROUNDUP POWERMAX COC N-PAK AMS	2.5 a	99.0 a	99.0 a	2.5 a	99.0 a	99.0 a
5 ANTHEM FLEX ATRAZINE CALLISTO ATRAZINE ROUNDUP POWERMAX COC N-PAK AMS	5.0 a	99.0 a	99.0 a	5.0 a	98.0 a	99.0 a
6 ANTHEM MAXX ATRAZINE CALLISTO ATRAZINE ROUNDUP POWERMAX COC N-PAK AMS	0.0 a	99.0 a	99.0 a	2.5 a	95.5 a	99.0 a
7 ANTHEM MAXX ATRAZINE CALLISTO ROUNDUP POWERMAX COC N-PAK AMS	0.0 a	99.0 a	99.0 a	2.5 a	96.8 a	99.0 a
8 BICEP II MAGNUM HALEX GT NIS	0.0 a	99.0 a	99.0 a	8.8 a	96.8 a	99.0 a
9 HALEX GT ATRAZINE NIS	0.0 a	0.0 b	0.0 b	2.5 a	96.8 a	99.0 a
Tukey's HSD P=.10	5.99	.	.	11.84	8.06	.
Standard Deviation	2.76	0.00	0.00	5.46	3.72	0.00
CV	248.75	0.0	0.0	163.78	4.29	0.0
Grand Mean	1.11	66.00	66.00	3.33	86.64	88.00
Levene's F	2.375	0.00	0.00	2.625	0.488	0.00
Levene's Prob(F)	0.044*	0.00*	0.00*	0.029*	0.854	0.00*
Replicate F	2.909	0.000	0.000	1.926	0.522	0.000
Replicate Prob(F)	0.0552	1.0000	1.0000	0.1523	0.6712	1.0000
Treatment F	1.727	0.000	0.000	1.101	305.970	0.000
Treatment Prob(F)	0.1432	1.0000	1.0000	0.3966	0.0001	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 2,3,6,8,11 because error mean square = 0.

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Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date Trt-Eval Interval							----- ZEAMA PLANT - STUNTING PERCENT May-10-18	AMAPA ----- CONTROL PERCENT May-10-18	AGRASS ----- CONTROL PERCENT May-10-18	----- ZEAMA PLANT - STUNTING PERCENT Jun-12-18	AMAPA ----- CONTROL PERCENT Jun-12-18	AGRASS ----- CONTROL PERCENT Jun-12-18
PRM Data Type # Subsamples, Dec.												
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Grow Stg	Appl Code	7	8	9	10	11	12
1	NTC						0.0 c	0.0 b	0.0 b	0.0 a	0.0 b	0.0 b
2	ROUNDUP POWER MAX	5.5	SL	32.0 oz/a	EPOST	B	0.0 c	99.0 a	92.0 a	0.0 a	99.0 a	84.8 a
	ATRAZINE	4	L	64.0 oz/a	EPOST	B						
	PROWL H20	3.8	ME	32.0 oz/a	EPOST	B						
3	ANTHEM FLEX	4	SC	4.5 oz/a	PRE	A	30.0 ab	99.0 a	98.0 a	12.5 a	99.0 a	96.0 a
	ATRAZINE	4	L	32.0 oz/a	PRE	A						
	CALLISTO	4	SC	3.0 oz/a	POST	C						
	ATRAZINE	4	L	16.0 oz/a	POST	C						
	ROUNDUP POWERMAX	5.5	SL	22.0 oz/a	POST	C						
	COC			1.0 % v/v	POST	C						
	N-PAK AMS			2.5 % v/v	POST	C						
4	ANTHEM MAXX	4.35	SC	4.0 oz/a	PRE	A	28.8 ab	99.0 a	95.5 a	7.5 a	99.0 a	89.8 a
	ATRAZINE	4	L	32.0 oz/a	PRE	A						
	CALLISTO	4	SC	3.0 oz/a	POST	C						
	ATRAZINE	4	L	16.0 oz/a	POST	C						
	ROUNDUP POWERMAX	5.5	SL	22.0 oz/a	POST	C						
	COC			1.0 % v/v	POST	C						
	N-PAK AMS			2.5 % v/v	POST	C						
5	ANTHEM FLEX	4	SC	4.5 oz/a	PRE	A	36.3 a	99.0 a	98.0 a	17.5 a	99.0 a	86.3 a
	ATRAZINE	4	L	32.0 oz/a	PRE	A						
	CALLISTO	4	SC	6.0 oz/a	POST	C						
	ATRAZINE	4	L	48.0 oz/a	POST	C						
	ROUNDUP POWERMAX	5.5	SL	22.0 oz/a	POST	C						
	COC			1.0 % v/v	POST	C						
	N-PAK AMS			2.5 % v/v	POST	C						
6	ANTHEM MAXX	4.35	SC	4.0 oz/a	PRE	A	21.3 abc	99.0 a	96.0 a	2.5 a	99.0 a	75.0 a
	ATRAZINE	4	L	32.0 oz/a	PRE	A						
	CALLISTO	4	SC	6.0 oz/a	POST	C						
	ATRAZINE	4	L	48.0 oz/a	POST	C						
	ROUNDUP POWERMAX	5.5	SL	22.0 oz/a	POST	C						
	COC			1.0 % v/v	POST	C						
	N-PAK AMS			2.5 % v/v	POST	C						
7	ANTHEM MAXX	4.35	SC	4.0 oz/a	PRE	A	8.8 bc	99.0 a	91.0 a	0.0 a	99.0 a	78.5 a
	ATRAZINE	4	L	48.0 oz/a	PRE	A						
	CALLISTO	4	SC	3.0 oz/a	POST	C						
	ROUNDUP POWERMAX	5.5	SL	22.0 oz/a	POST	C						
	COC			1.0 % v/v	POST	C						
	N-PAK AMS			2.5 % v/v	POST	C						
8	BICEP II MAGNUM	5.5	L	51.0 oz/a	PRE	A	3.8 bc	99.0 a	98.0 a	0.0 a	99.0 a	94.8 a
	HALEX GT	4.39	SC	58.0 oz/a	POST	C						
	NIS			0.25 % v/v	POST	C						
9	HALEX GT	4.39	SC	58.0 oz/a	EPOST	B	7.5 bc	99.0 a	87.5 a	0.0 a	99.0 a	72.5 a
	ATRAZINE	4	L	64.0 oz/a	EPOST	B						
	NIS			0.25 % v/v	EPOST	B						
Tukey's HSD P=.10							27.26	.	14.40	19.85	.	31.80
Standard Deviation							12.57	0.00	6.64	9.15	0.00	14.67
CV							83.06	0.0	7.91	205.97	0.0	19.49
Grand Mean							15.14	88.00	84.00	4.44	88.00	75.28
Levene's F							1.287	0.00	0.891	5.208	0.00	2.017
Levene's Prob(F)							0.291	0.00*	0.537	0.001*	0.00*	0.083
Replicate F							0.262	0.000	2.340	2.740	0.000	2.109
Replicate Prob(F)							0.8520	1.0000	0.0987	0.0655	1.0000	0.1256
Treatment F							4.985	0.000	91.215	2.072	0.000	16.065
Treatment Prob(F)							0.0010	1.0000	0.0001	0.0802	1.0000	0.0001

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 2,3,6,8,11 because error mean square = 0.

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Weed Code							-----	-----
Crop Code							ZEAMA	ZEAMA
Part Rated							PLOT -	PLOT -
Rating Data Type							YIELD	YIELD
Rating Unit							LBS/PLOT	BU/A
Rating Date							Sep-7-18	Sep-7-18
Trt-Eval Interval							157 DA-A	157 DA-A
PRM Data Type								TY1
# Subsamples, Dec.								- 0
Trt Treatment	Form	Form	Rate	Grow	Appl			
No. Name	Conc	Type	Rate Unit	Stg	Code		13	14
1 NTC							36.5 ab	187 ab
2 ROUNDUP POWER MAX	5.5 SL		32.0 oz/a	EPOST B			41.8 a	214 a
ATRAZINE	4 L		64.0 oz/a	EPOST B				
PROWL H20	3.8 ME		32.0 oz/a	EPOST B				
3 ANTHEM FLEX	4 SC		4.5 oz/a	PRE A			34.0 b	174 b
ATRAZINE	4 L		32.0 oz/a	PRE A				
CALLISTO	4 SC		3.0 oz/a	POST C				
ATRAZINE	4 L		16.0 oz/a	POST C				
ROUNDUP POWERMAX	5.5 SL		22.0 oz/a	POST C				
COC			1.0 % v/v	POST C				
N-PAK AMS			2.5 % v/v	POST C				
4 ANTHEM MAXX	4.35 SC		4.0 oz/a	PRE A			37.3 ab	191 ab
ATRAZINE	4 L		32.0 oz/a	PRE A				
CALLISTO	4 SC		3.0 oz/a	POST C				
ATRAZINE	4 L		16.0 oz/a	POST C				
ROUNDUP POWERMAX	5.5 SL		22.0 oz/a	POST C				
COC			1.0 % v/v	POST C				
N-PAK AMS			2.5 % v/v	POST C				
5 ANTHEM FLEX	4 SC		4.5 oz/a	PRE A			34.0 b	174 b
ATRAZINE	4 L		32.0 oz/a	PRE A				
CALLISTO	4 SC		6.0 oz/a	POST C				
ATRAZINE	4 L		48.0 oz/a	POST C				
ROUNDUP POWERMAX	5.5 SL		22.0 oz/a	POST C				
COC			1.0 % v/v	POST C				
N-PAK AMS			2.5 % v/v	POST C				
6 ANTHEM MAXX	4.35 SC		4.0 oz/a	PRE A			36.3 ab	186 ab
ATRAZINE	4 L		32.0 oz/a	PRE A				
CALLISTO	4 SC		6.0 oz/a	POST C				
ATRAZINE	4 L		48.0 oz/a	POST C				
ROUNDUP POWERMAX	5.5 SL		22.0 oz/a	POST C				
COC			1.0 % v/v	POST C				
N-PAK AMS			2.5 % v/v	POST C				
7 ANTHEM MAXX	4.35 SC		4.0 oz/a	PRE A			39.0 ab	200 ab
ATRAZINE	4 L		48.0 oz/a	PRE A				
CALLISTO	4 SC		3.0 oz/a	POST C				
ROUNDUP POWERMAX	5.5 SL		22.0 oz/a	POST C				
COC			1.0 % v/v	POST C				
N-PAK AMS			2.5 % v/v	POST C				
8 BICEP II MAGNUM	5.5 L		51.0 oz/a	PRE A			41.0 ab	210 ab
HALEX GT	4.39 SC		58.0 oz/a	POST C				
NIS			0.25 % v/v	POST C				
9 HALEX GT	4.39 SC		58.0 oz/a	EPOST B			41.0 ab	210 ab
ATRAZINE	4 L		64.0 oz/a	EPOST B				
NIS			0.25 % v/v	EPOST B				
Tukey's HSD P=.10							7.27	37.3
Standard Deviation							3.35	17.2
CV							8.86	8.86
Grand Mean							37.86	194.2
Levene's F							1.591	1.591
Levene's Prob(F)							0.174	0.174
Replicate F							5.368	5.368
Replicate Prob(F)							0.0057	0.0057
Treatment F							3.144	3.144
Treatment Prob(F)							0.0140	0.0140

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 2,3,6,8,11 because error mean square = 0.

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ANTHEM FLEX AND ANTHEM MAXX FOR WEED CONTROL IN FIELD CORN Trial ID: CN-10-18 Study Dir.: CRAIG HEIM Location: PONDER FARM Investigator: Eric P. Prostko	
<u>Weed Code</u> AMAPA = AMARANTH, PALMER / AMARANTHUS PALMERI S.WATS. <u>Part Rated</u> PLANT = PLANT / PLANT BIOMASS (includes Shrub, Tree, Turf) <u>PRM Data Type</u> TY1 = 5.130482*[C13]	

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ANTHEM FLEX AND ANTHEM MAXX FOR WEED CONTROL IN FIELD CORN Trial ID: CN-10-18 Study Dir.: CRAIG HEIM Location: PONDER FARM Investigator: Eric P. Prostko										
Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date Trt-Eval Interval PRM Data Type # Subsamples, Dec.						----- ZEAMA PLANT - STUNTING PERCENT Apr-17-18	AMAPA ----- CONTROL PERCENT Apr-17-18	AGRASS ----- CONTROL PERCENT Apr-17-18	----- ZEAMA PLANT - STUNTING PERCENT Apr-26-18	AGRASS ----- CONTROL PERCENT Apr-26-18
Trt	Treatment	Form	Form	Rate	Grow	Appl				
No.	Name	Conc	Type	Rate	Unit	Stg	Code	Plot	1	2
1	NTC									
							101		0.0	0.0
							205		0.0	0.0
							309		0.0	0.0
							407		0.0	0.0
							Mean =		0.0	0.0
2	ROUNDUP POWER MAX	5.5	SL	32.0	oz/a	EPOST B	102		0.0	0.0
	ATRAZINE	4	L	64.0	oz/a	EPOST B	209		0.0	0.0
	PROWL H20	3.8	ME	32.0	oz/a	EPOST B	308		0.0	0.0
							409		0.0	0.0
							Mean =		0.0	0.0
3	ANTHEM FLEX	4	SC	4.5	oz/a	PRE	A	103	10.0	99.0
	ATRAZINE	4	L	32.0	oz/a	PRE	A	206	0.0	99.0
	CALLISTO	4	SC	3.0	oz/a	POST	C	302	0.0	99.0
	ATRAZINE	4	L	16.0	oz/a	POST	C	403	0.0	99.0
	ROUNDUP POWERMAX	5.5	SL	22.0	oz/a	POST	C			
	COC			1.0	% v/v	POST	C			
	N-PAK AMS			2.5	% v/v	POST	C			
							Mean =		2.5	99.0
4	ANTHEM MAXX	4.35	SC	4.0	oz/a	PRE	A	104	10.0	99.0
	ATRAZINE	4	L	32.0	oz/a	PRE	A	202	0.0	99.0
	CALLISTO	4	SC	3.0	oz/a	POST	C	301	0.0	99.0
	ATRAZINE	4	L	16.0	oz/a	POST	C	406	0.0	99.0
	ROUNDUP POWERMAX	5.5	SL	22.0	oz/a	POST	C			
	COC			1.0	% v/v	POST	C			
	N-PAK AMS			2.5	% v/v	POST	C			
							Mean =		2.5	99.0
5	ANTHEM FLEX	4	SC	4.5	oz/a	PRE	A	105	10.0	99.0
	ATRAZINE	4	L	32.0	oz/a	PRE	A	207	0.0	99.0
	CALLISTO	4	SC	6.0	oz/a	POST	C	306	10.0	99.0
	ATRAZINE	4	L	48.0	oz/a	POST	C	404	0.0	99.0
	ROUNDUP POWERMAX	5.5	SL	22.0	oz/a	POST	C			
	COC			1.0	% v/v	POST	C			
	N-PAK AMS			2.5	% v/v	POST	C			
							Mean =		5.0	99.0
6	ANTHEM MAXX	4.35	SC	4.0	oz/a	PRE	A	106	0.0	99.0
	ATRAZINE	4	L	32.0	oz/a	PRE	A	201	0.0	99.0
	CALLISTO	4	SC	6.0	oz/a	POST	C	303	0.0	99.0
	ATRAZINE	4	L	48.0	oz/a	POST	C	401	0.0	99.0
	ROUNDUP POWERMAX	5.5	SL	22.0	oz/a	POST	C			
	COC			1.0	% v/v	POST	C			
	N-PAK AMS			2.5	% v/v	POST	C			
							Mean =		0.0	99.0
7	ANTHEM MAXX	4.35	SC	4.0	oz/a	PRE	A	107	0.0	99.0
	ATRAZINE	4	L	48.0	oz/a	PRE	A	203	0.0	99.0
	CALLISTO	4	SC	3.0	oz/a	POST	C	304	0.0	99.0
	ROUNDUP POWERMAX	5.5	SL	22.0	oz/a	POST	C	402	0.0	99.0
	COC			1.0	% v/v	POST	C			
	N-PAK AMS			2.5	% v/v	POST	C			
							Mean =		0.0	99.0
8	BICEP II MAGNUM	5.5	L	51.0	oz/a	PRE	A	108	0.0	99.0
	HALEX GT	4.39	SC	58.0	oz/a	POST	C	204	0.0	99.0
	NIS			0.25	% v/v	POST	C	307	0.0	99.0
							405		0.0	99.0
							Mean =		0.0	99.0

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Weed Code							-----	AMAPA	AGRASS	-----	AGRASS
Crop Code							ZEAMA	-----	-----	ZEAMA	-----
Part Rated							PLANT -			PLANT -	
Rating Data Type							STUNTING	CONTROL	CONTROL	STUNTING	CONTROL
Rating Unit							PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date							Apr-17-18	Apr-17-18	Apr-17-18	Apr-26-18	Apr-26-18
Trt-Eval Interval											
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	
9 HALEX GT	4.39 SC	58.0 oz/a	EPOST B	109		0.0	0.0	0.0	0.0	99.0	
ATRAZINE	4 L	64.0 oz/a	EPOST B	208		0.0	0.0	0.0	10.0	99.0	
NIS		0.25 % v/v	EPOST B	305		0.0	0.0	0.0	0.0	90.0	
				408		0.0	0.0	0.0	0.0	99.0	
				Mean =		0.0	0.0	0.0	2.5	96.8	

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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.						AMAPA ----- CONTROL PERCENT Apr-26-18	----- ZEAMA PLANT - STUNTING PERCENT May-10-18	AMAPA ----- CONTROL PERCENT May-10-18	AGRASS ----- CONTROL PERCENT May-10-18	----- ZEAMA PLANT - STUNTING PERCENT Jun-12-18
Trt Treatment	Form	Form	Rate	Grow	Appl					
No. Name	Conc	Type	Rate	Unit	Stg	Code Plot	6	7	8	9 10
1 NTC						101	0.0	0.0	0.0	0.0
						205	0.0	0.0	0.0	0.0
						309	0.0	0.0	0.0	0.0
						407	0.0	0.0	0.0	0.0
						Mean =	0.0	0.0	0.0	0.0
2 ROUNDUP POWER MAX	5.5 SL		32.0 oz/a	EPOST	B	102	99.0	0.0	99.0	99.0
ATRAZINE	4 L		64.0 oz/a	EPOST	B	209	99.0	0.0	99.0	75.0
PROWL H20	3.8 ME		32.0 oz/a	EPOST	B	308	99.0	0.0	99.0	99.0
						409	99.0	0.0	99.0	95.0
						Mean =	99.0	0.0	99.0	92.0
3 ANTHEM FLEX	4 SC		4.5 oz/a	PRE	A	103	99.0	30.0	99.0	99.0
ATRAZINE	4 L		32.0 oz/a	PRE	A	206	99.0	30.0	99.0	95.0
CALLISTO	4 SC		3.0 oz/a	POST	C	302	99.0	35.0	99.0	99.0
ATRAZINE	4 L		16.0 oz/a	POST	C	403	99.0	25.0	99.0	99.0
ROUNDUP POWERMAX	5.5 SL		22.0 oz/a	POST	C					
COC			1.0 % v/v	POST	C					
N-PAK AMS			2.5 % v/v	POST	C					
						Mean =	99.0	30.0	99.0	98.0
4 ANTHEM MAXX	4.35 SC		4.0 oz/a	PRE	A	104	99.0	40.0	99.0	99.0
ATRAZINE	4 L		32.0 oz/a	PRE	A	202	99.0	10.0	99.0	99.0
CALLISTO	4 SC		3.0 oz/a	POST	C	301	99.0	30.0	99.0	85.0
ATRAZINE	4 L		16.0 oz/a	POST	C	406	99.0	35.0	99.0	99.0
ROUNDUP POWERMAX	5.5 SL		22.0 oz/a	POST	C					
COC			1.0 % v/v	POST	C					
N-PAK AMS			2.5 % v/v	POST	C					
						Mean =	99.0	28.8	99.0	95.5
5 ANTHEM FLEX	4 SC		4.5 oz/a	PRE	A	105	99.0	50.0	99.0	99.0
ATRAZINE	4 L		32.0 oz/a	PRE	A	207	99.0	40.0	99.0	99.0
CALLISTO	4 SC		6.0 oz/a	POST	C	306	99.0	20.0	99.0	95.0
ATRAZINE	4 L		48.0 oz/a	POST	C	404	99.0	35.0	99.0	99.0
ROUNDUP POWERMAX	5.5 SL		22.0 oz/a	POST	C					
COC			1.0 % v/v	POST	C					
N-PAK AMS			2.5 % v/v	POST	C					
						Mean =	99.0	36.3	99.0	98.0
6 ANTHEM MAXX	4.35 SC		4.0 oz/a	PRE	A	106	99.0	10.0	99.0	95.0
ATRAZINE	4 L		32.0 oz/a	PRE	A	201	99.0	0.0	99.0	95.0
CALLISTO	4 SC		6.0 oz/a	POST	C	303	99.0	40.0	99.0	95.0
ATRAZINE	4 L		48.0 oz/a	POST	C	401	99.0	35.0	99.0	99.0
ROUNDUP POWERMAX	5.5 SL		22.0 oz/a	POST	C					
COC			1.0 % v/v	POST	C					
N-PAK AMS			2.5 % v/v	POST	C					
						Mean =	99.0	21.3	99.0	96.0
7 ANTHEM MAXX	4.35 SC		4.0 oz/a	PRE	A	107	99.0	0.0	99.0	95.0
ATRAZINE	4 L		48.0 oz/a	PRE	A	203	99.0	0.0	99.0	95.0
CALLISTO	4 SC		3.0 oz/a	POST	C	304	99.0	0.0	99.0	75.0
ROUNDUP POWERMAX	5.5 SL		22.0 oz/a	POST	C	402	99.0	35.0	99.0	99.0
COC			1.0 % v/v	POST	C					
N-PAK AMS			2.5 % v/v	POST	C					
						Mean =	99.0	8.8	99.0	91.0
8 BICEP II MAGNUM	5.5 L		51.0 oz/a	PRE	A	108	99.0	0.0	99.0	95.0
HALEX GT	4.39 SC		58.0 oz/a	POST	C	204	99.0	15.0	99.0	99.0
NIS			0.25 % v/v	POST	C	307	99.0	0.0	99.0	99.0
						405	99.0	0.0	99.0	99.0
						Mean =	99.0	3.8	99.0	98.0

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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.							AMAPA ----- CONTROL PERCENT Apr-26-18	----- ZEAMA PLANT - STUNTING PERCENT May-10-18	AMAPA ----- CONTROL PERCENT May-10-18	AGRASS ----- CONTROL PERCENT May-10-18	----- ZEAMA PLANT - STUNTING PERCENT Jun-12-18	
Trt Treatment No. Name	Form Conc	Form Type	Rate Rate	Grow Unit	Appl Stg	Code Code	Plot	6	7	8	9	10
9 HALEX GT	4.39	SC	58.0	oz/a	EPOST	B	109	99.0	0.0	99.0	95.0	0.0
ATRAZINE	4	L	64.0	oz/a	EPOST	B	208	99.0	30.0	99.0	90.0	0.0
NIS			0.25	% v/v	EPOST	B	305	99.0	0.0	99.0	70.0	0.0
							408	99.0	0.0	99.0	95.0	0.0
							Mean =	99.0	7.5	99.0	87.5	0.0

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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.						AMAPA ----- CONTROL PERCENT Jun-12-18	AGRASS ----- CONTROL PERCENT Jun-12-18	----- ZEAMA PLOT - YIELD LBS/PLOT Sep-7-18 157 DA-A	----- ZEAMA PLOT - YIELD BU/A Sep-7-18 157 DA-A TY1 - 0
Trt Treatment No. Name	Form Form Conc Type	Rate Rate Unit	Grow Stg	Appl Code Plot		11	12	13	14
1 NTC				101		0.0	0.0	29.0	149
				205		0.0	0.0	44.0	226
				309		0.0	0.0	34.0	174
				407		0.0	0.0	39.0	200
				Mean =		0.0	0.0	36.5	187
2 ROUNDUP POWER MAX	5.5 SL	32.0 oz/a	EPOST B	102		99.0	99.0	39.0	200
ATRAZINE	4 L	64.0 oz/a	EPOST B	209		99.0	50.0	41.0	210
PROWL H20	3.8 ME	32.0 oz/a	EPOST B	308		99.0	95.0	43.0	221
				409		99.0	95.0	44.0	226
				Mean =		99.0	84.8	41.8	214
3 ANTHEM FLEX	4 SC	4.5 oz/a	PRE A	103		99.0	99.0	26.0	133
ATRAZINE	4 L	32.0 oz/a	PRE A	206		99.0	95.0	33.0	169
CALLISTO	4 SC	3.0 oz/a	POST C	302		99.0	95.0	38.0	195
ATRAZINE	4 L	16.0 oz/a	POST C	403		99.0	95.0	39.0	200
ROUNDUP POWERMAX	5.5 SL	22.0 oz/a	POST C						
COC		1.0 % v/v	POST C						
N-PAK AMS		2.5 % v/v	POST C						
				Mean =		99.0	96.0	34.0	174
4 ANTHEM MAXX	4.35 SC	4.0 oz/a	PRE A	104		99.0	99.0	33.0	169
ATRAZINE	4 L	32.0 oz/a	PRE A	202		99.0	95.0	40.0	205
CALLISTO	4 SC	3.0 oz/a	POST C	301		99.0	70.0	40.0	205
ATRAZINE	4 L	16.0 oz/a	POST C	406		99.0	95.0	36.0	185
ROUNDUP POWERMAX	5.5 SL	22.0 oz/a	POST C						
COC		1.0 % v/v	POST C						
N-PAK AMS		2.5 % v/v	POST C						
				Mean =		99.0	89.8	37.3	191
5 ANTHEM FLEX	4 SC	4.5 oz/a	PRE A	105		99.0	90.0	26.0	133
ATRAZINE	4 L	32.0 oz/a	PRE A	207		99.0	90.0	34.0	174
CALLISTO	4 SC	6.0 oz/a	POST C	306		99.0	70.0	37.0	190
ATRAZINE	4 L	48.0 oz/a	POST C	404		99.0	95.0	39.0	200
ROUNDUP POWERMAX	5.5 SL	22.0 oz/a	POST C						
COC		1.0 % v/v	POST C						
N-PAK AMS		2.5 % v/v	POST C						
				Mean =		99.0	86.3	34.0	174
6 ANTHEM MAXX	4.35 SC	4.0 oz/a	PRE A	106		99.0	65.0	36.0	185
ATRAZINE	4 L	32.0 oz/a	PRE A	201		99.0	50.0	39.0	200
CALLISTO	4 SC	6.0 oz/a	POST C	303		99.0	90.0	37.0	190
ATRAZINE	4 L	48.0 oz/a	POST C	401		99.0	95.0	33.0	169
ROUNDUP POWERMAX	5.5 SL	22.0 oz/a	POST C						
COC		1.0 % v/v	POST C						
N-PAK AMS		2.5 % v/v	POST C						
				Mean =		99.0	75.0	36.3	186
7 ANTHEM MAXX	4.35 SC	4.0 oz/a	PRE A	107		99.0	70.0	38.0	195
ATRAZINE	4 L	48.0 oz/a	PRE A	203		99.0	95.0	41.0	210
CALLISTO	4 SC	3.0 oz/a	POST C	304		99.0	50.0	42.0	215
ROUNDUP POWERMAX	5.5 SL	22.0 oz/a	POST C	402		99.0	99.0	35.0	180
COC		1.0 % v/v	POST C						
N-PAK AMS		2.5 % v/v	POST C						
				Mean =		99.0	78.5	39.0	200
8 BICEP II MAGNUM	5.5 L	51.0 oz/a	PRE A	108		99.0	90.0	39.0	200
HALEX GT	4.39 SC	58.0 oz/a	POST C	204		99.0	95.0	41.0	210
NIS		0.25 % v/v	POST C	307		99.0	99.0	42.0	215
				405		99.0	95.0	42.0	215
				Mean =		99.0	94.8	41.0	210

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Weed Code							AMAPA	AGRASS	-----	-----		
Crop Code							-----	-----				
Part Rated									ZEAMA	ZEAMA		
Rating Data Type									PLOT -	PLOT -		
Rating Unit							CONTROL	CONTROL	YIELD	YIELD		
Rating Date							PERCENT	PERCENT	LBS/PLOT	BU/A		
Trt-Eval Interval							Jun-12-18	Jun-12-18	Sep-7-18	Sep-7-18		
PRM Data Type									157 DA-A	157 DA-A		
# Subsamples, Dec.										TY1		
										- 0		
Trt	Treatment	Form	Form	Rate	Grow	Appl						
No.	Name	Conc	Type	Rate	Unit	Stg	Code	Plot				
									11	12		
									13	14		
9	HALEX GT	4.39	SC	58.0	oz/a	EPOST	B	109	99.0	85.0	40.0	205
	ATRAZINE	4	L	64.0	oz/a	EPOST	B	208	99.0	65.0	38.0	195
	NIS			0.25	% v/v	EPOST	B	305	99.0	50.0	43.0	221
								408	99.0	90.0	43.0	221
								Mean =	99.0	72.5	41.0	210

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ANTHEM FLEX AND ANTHEM MAXX FOR WEED CONTROL IN FIELD CORN Trial ID: CN-10-18 Study Dir.: CRAIG HEIM Location: PONDER FARM Investigator: Eric P. Prostko	
<u>Weed Code</u> AMAPA = AMARANTH, PALMER / AMARANTHUS PALMERI S.WATS. <u>Part Rated</u> PLANT = PLANT / PLANT BIOMASS (includes Shrub, Tree, Turf) <u>PRM Data Type</u> TY1 = 5.130482*[C13]	