

# University of Georgia

WEED CONTROL IN FIELD CORN WITH EMPYROS

Trial ID: CN-06-21      Study Dir.: ZACH TAYLOR  
 Location: PONDER FARM      Investigator: Eric P. Prostko

Reps: 4      Plots: 6 by 25 feet  
 Appl. Amount: 15 GAL/AC      Mix Size: 1.5 L (total for 4 plots; minimum=0.782 L)

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Diluent	Rep 1	2	3	4
1	NTC							-	101	207	311	409
2	ROUNDUP POWERMAX 3 ATRAZINE PROWL H2O	5.88 4 L 3.8	SL  SC	21.0 oz/a 64.0 oz/a 32.0 oz/a	EPOST EPOST EPOST	A A A	16.41 mL/mx 50.0 mL/mx 25.0 mL/mx	1408.6 mL	102	205	302	405
3	HM1821A ROUNDUP POWERMAX 3 ATRAZINE	3.81 5.88 4 L	EC SL L	48.0 oz/a 21.0 oz/a 32.0 oz/a	EPOST EPOST EPOST	A A A	37.5 mL/mx 16.41 mL/mx 25.0 mL/mx	1421.1 mL	103	208	309	402
4	HM1823 ROUNDUP POWERMAX 3	3.52 5.88	SE SL	80.0 oz/a 21.0 oz/a	EPOST EPOST	A A	62.5 mL/mx 16.41 mL/mx	1421.1 mL	104	210	303	401
5	HM1824 ROUNDUP POWERMAX 3	3.52 5.88	SE SL	80.0 oz/a 21.0 oz/a	EPOST EPOST	A A	62.5 mL/mx 16.41 mL/mx	1421.1 mL	105	209	312	411
6	HALEX GT ATRAZINE INDUCE	4.39 4 L	SC L	58.0 oz/a 32.0 oz/a 0.25 % v/v	EPOST EPOST EPOST	A A A	45.31 mL/mx 25.0 mL/mx 3.75 mL/mx	1425.9 mL	106	202	306	410
7	IMPACT ROUNDUP POWERMAX 3 ATRAZINE	2.8 5.88 4 L	L SL L	0.75 oz/a 21.0 oz/a 32.0 oz/a	EPOST EPOST EPOST	A A A	0.5859 mL/mx 16.41 mL/mx 25.0 mL/mx	1458.0 mL	107	211	304	408
8	ARMEZON PRO ROUNDUP POWERMAX 3 ATRAZINE	5.35 5.88 4 L	SC SL L	15.0 oz/a 21.0 oz/a 32.0 oz/a	EPOST EPOST EPOST	A A A	11.72 mL/mx 16.41 mL/mx 25.0 mL/mx	1446.9 mL	108	204	301	406
9	SHIELDEX ROUNDUP POWERMAX 3 ATRAZINE	3.33 5.88 4 L	SC SL L	1.0 oz/a 21.0 oz/a 32.0 oz/a	EPOST EPOST EPOST	A A A	0.7812 mL/mx 16.41 mL/mx 25.0 mL/mx	1457.8 mL	109	201	310	412
10	LAUDIS ROUNDUP POWERMAX 3 ATRAZINE	3.5 5.88 4 L	SC SL L	3.0 oz/a 21.0 oz/a 32.0 oz/a	EPOST EPOST EPOST	A A A	2.344 mL/mx 16.41 mL/mx 25.0 mL/mx	1456.2 mL	110	212	307	404
11	RESICORE ROUNDUP POWERMAX 3 ATRAZINE	3.29 5.88 4 L	SL SL L	72.0 oz/a 21.0 oz/a 32.0 oz/a	EPOST EPOST EPOST	A A A	56.25 mL/mx 16.41 mL/mx 25.0 mL/mx	1402.3 mL	111	206	308	403
12	ACURON FLEXI ROUNDUP POWERMAX 3 ATRAZINE	3.26 5.88 4 L	SC SL L	64.0 oz/a 21.0 oz/a 32.0 oz/a	EPOST EPOST EPOST	A A A	50.0 mL/mx 16.41 mL/mx 25.0 mL/mx	1408.6 mL	112	203	305	407

Sort Order: Treatment

Trial Comments

HM1821A = **EMPYROS** = TOLPYRALATE (0.099 LBS/GAL) + S-METOLACHLOR (3.71 LBS/GAL)  
 HM1823 = **EMPYROS TRIAD** = TOLPYRALATE (0.04 LBS/GAL) + S-METOLACHLOR (1.74 LBS/GAL) + ATRAZINE (1.74 LBS/GAL)  
 HM1824 = **EMPYROS TRIAD FLEX** = TOLPYRALATE (0.047 LBS/GAL) + S-METOLACHLOR (2.53 LBS/GAL) + ATRAZINE (0.93 LBS/GAL)  
**ARMEZON PRO** = TOPRAMEZONE (0.1 LB/GAL) + DIMETHENAMID-P (5.25 LBS/GAL)  
**HALEX GT** = GLYPHOSATE (2.09 LB/GAL) + MESOTRIONE (0.209 LBS/GAL) + S-METOLACHLOR (2.09 LBS/GAL)  
**RESICORE** = ACETOCHLOR (2.8 LBS/GAL) + MESOTRIONE (0.30 LBS/GAL) + CLOPYRALID (0.19 LBS/GAL)  
**ACURON FLEXI** = BICYCLOPYRONE (0.08 LBS/GAL) + MESOTRIONE (0.32 LBS/GAL) + S-METOLACHLOR (2.86 LBS/GAL)

VERY LIGHT RAIN (<0.1") ABOUT 2 HOURS AFTER EPOST'S WERE APPLIED BUT RAIN DID NOT INFLUENCE EFFICACY.

HARVEST MOISTURE: 15.67%  
 YIELDS ADJUSTED TO 15.5% MOISTURE

**SUMMARY:**

1) ON APRIL 23 (7 DAT), SIGNIFICANT LEAF CHLOROSIS (5-14%) WAS OBSERVED WITH ALL HM TREATMENTS, HALEX GT, RESICORE, AND ACURON FLEXI. AT THIS TIME, HM1821A WAS SLIGHTLY MORE INJURIOUS THAN THE OTHER HM TREATMENTS.

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2) ON MAY 13 (27 DAT), SLIGHT CROP STUNTING (<7%) WAS OBSERVED FROM ALL TREATMENTS EXCEPT ROUNDUP + PROWL + ATRAZINE AND SHIELDEX + ROUNDUP + ATRAZINE. AT THIS TIME, RESICORE WAS THE MOST INJURIOUS CAUSING ~14% CORN STUNTING.

3) ON MAY 13 (27 DAT), ALL TREATMENTS PROVIDED AT LEAST 96% CONTROL OF PALMER AMARANTH.

4) ON MAY 13 (27 DAT), ALL TREATMENTS PROVIDED AT LEAST 91% CONTROL OF WILD RADISH EXCEPT ROUNDUP + ATRAZINE + PROWL (85%).

5) ON MAY 13 (27 DAT), ALL HM TREATMENTS PROVIDED BETTER ANNUAL GRASS CONTROL THAN IMPACT, SHIELDEX, AND LAUDIS TREATMENTS.

6) ALL HERBICIDE TREATED PLOTS HAD HIGHER GRAIN YIELDS THAN THE NTC.

7) THE FOLLOWING HERBICIDE TREATMENTS RESULTED IN LOWER GRAIN YIELDS THAN ROUNDUP + ATRAZINE + PROWL AND ARMEZON PRO + ROUNDUP + ATRAZINE:

- A) HM1821A (EMPYROS) + ROUNDUP + ATRAZINE
- B) RESICORE + ROUNDUP + ATRAZINE
- C) ACURON FLEXI + ROUNDUP + ATRAZINE

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 Location: PONDER FARM      Investigator: Eric P. Prostko

**GENERAL TRIAL INFORMATION**

**Study Director:** ZACH TAYLOR      **Title:** \_\_\_\_\_  
**Affiliation:** \_\_\_\_\_  
**Postal Code:** \_\_\_\_\_

**Investigator:** Eric P. Prostko      **Title:** \_\_\_\_\_  
**Affiliation:** \_\_\_\_\_  
**Postal Code:** \_\_\_\_\_

**TRIAL LOCATION**

**City:** \_\_\_\_\_      **Trial Status:** E  
**State/Prov.:** \_\_\_\_\_      **Trial Reliability:** \_\_\_\_\_  
**Postal Code:** \_\_\_\_\_      **Initiation Date:** \_\_\_\_\_  
**Country:** \_\_\_\_\_      **Planned Completion Date:** \_\_\_\_\_  
**E-Longitude of LL Corner °:** \_\_\_\_\_      **N-Latitude of LL Corner °:** \_\_\_\_\_  
**Altitude of LL Corner:** \_\_\_\_\_      **Unit:** \_\_\_\_\_      **Angle y-axis to North °:** \_\_\_\_\_  
**Directions:** \_\_\_\_\_

**COOPERATOR/LANDOWNER**

**Cooperator:** \_\_\_\_\_      **Country:** \_\_\_\_\_  
**Org:** \_\_\_\_\_      **Phone No:** \_\_\_\_\_  
**Address 1:** \_\_\_\_\_      **Fax No:** \_\_\_\_\_  
**Address 2:** \_\_\_\_\_  
**City:** \_\_\_\_\_  
**State/Prov:** \_\_\_\_\_  
**Postal Code:** \_\_\_\_\_

**Conducted Under GLP (Y/N):** N      **Conducted Under GEP (Y/N):** N  
**Guidelines:** \_\_\_\_\_      **Guideline Description:** \_\_\_\_\_

**Objective:** \_\_\_\_\_

**Conclusions:** \_\_\_\_\_

**CROP AND WEED DESCRIPTION**

Weed	Code	Common Name	Scientific Name
1.	AMAPA	PA	LMER AMARANTH
2.	AGRASS	TX	PAN/CROW/GOOSE/CRAB
3.	RAPRA	WI	LD RADISH

**Crop 1:** ZEAMA      FIELD CORN      **Variety:** DKC-6208  
**Planting Date:** Mar-29-21      **Planting Method:** MONOSEM  
**Rate:** 36300 SEED/A      **Depth:** 2 IN      **Perennial Age:** \_\_\_\_\_  
**Row Spacing:** 36 IN      **Spacing Within Row:** \_\_\_\_\_      **Seed Bed:** \_\_\_\_\_  
**Soil Temperature:** \_\_\_\_\_      **Soil Moisture:** OPTIMUM      **Emergence Date:** \_\_\_\_\_

**SITE AND DESIGN**

**Plot Width, Unit:** 6 FT      **Plot Length, Unit:** 25 FT      **Reps:** 4  
**Site Type:** \_\_\_\_\_  
**Tillage Type:** CONVENTIONAL      **Study Design:** RACOBL

**Trial Initiation Comments:**

	Previous Crops	Previous Pesticides	Year
1.	PEANUT		2020

**MAINTENANCE**  
**Field Prep./Maintenance:** 800 LBS/A 5-15-30 PREPLANT;  
 46 GPA OF 24-0-0-3 ON APRIL 19 AND APRIL 29  
 AXILO BMZ (MICRONUTRIUENTS) @ 2 LBS/A ON APRIL 20

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No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.							

**SOIL DESCRIPTION**

% Sand: 94	% OM: 0.61	Texture: SAND	
% Silt: 4	pH: 6.0	Soil Name: TIFTON	
% Clay: 2	CEC: 2.6	Fert. Level: GOOD	

**ADDITIONAL MEASURED ELEMENTS**

Element	Quantity	Unit

**MOISTURE CONDITIONS**

	Date	Time	Amount	Unit	Type	Interval	Unit
1.	Mar-28-21		0.1	IN	RAINFALL		
2.	Mar-31-21		0.6	IN	SPRINKLER - LATERAL MOVE		
3.	Mar-31-21		0.8	IN	RAINFALL		
4.	Apr-7-21		0.5	IN	SPRINKLER - LATERAL MOVE		
5.	Apr-9-21		0.27	IN	RAINFALL		
6.	Apr-10-21		0.05	IN	RAINFALL		
7.	Apr-11-21		0.08	IN	RAINFALL		
8.	Apr-17-21		0.1	IN	RAINFALL		
9.	Apr-18-21		0.01	IN	RAINFALL		
10.	Apr-20-21		0.35	IN	SPRINKLER - LATERAL MOVE		
11.	Apr-24-21		6.0	IN	RAINFALL		
12.	May-3-21		0.1	IN	RAINFALL		
13.	May-4-21		1.15	IN	RAINFALL		
14.	May-11-21		0.5	IN	SPRINKLER - LATERAL MOVE		
15.	May-11-21		0.15	IN	RAINFALL		
16.	May-12-21		0.6	IN	RAINFALL		

**Overall Moisture Conditions:** \_\_\_\_\_  
**Closest Weather Station:** \_\_\_\_\_ **Distance:** \_\_\_\_\_ **Unit:** \_\_\_\_\_

**APPLICATION DESCRIPTION**

	A
<b>Application Date:</b>	Apr-16-21
<b>Time of Day:</b>	7:55 AM
<b>Application Method:</b>	BROADCAST
<b>Application Timing:</b>	EPOST
<b>Applic. Placement:</b>	FOLIAGE
<b>Air Temp., Unit:</b>	56 F
<b>% Relative Humidity:</b>	77
<b>Wind Velocity, Unit:</b>	2 MPH
<b>Dew Presence (Y/N):</b>	Y
<b>Water Hardness:</b>	--
<b>Soil Temp., Unit:</b>	60 F
<b>Soil Moisture:</b>	OPTIMUM
<b>% Cloud Cover:</b>	100

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**CROP STAGE AT EACH APPLICATION**

	A
<b>Crop 1 Code, Stage:</b>	ZEAMA
<b>Stage Scale:</b>	V3-V4
<b>Height, Unit:</b>	5 IN

**WEED STAGE AT EACH APPLICATION**

	A
<b>Weed 1 Code, Stage:</b>	AMAPA
<b>Stage Scale:</b>	1-3"
<b>Density, Unit:</b>	
<b>Weed 2 Code, Stage:</b>	AGRAS
<b>Stage Scale:</b>	1-3"
<b>Density, Unit:</b>	
<b>Weed 3 Code, Stage:</b>	RAPRA
<b>Stage Scale:</b>	2-3"
<b>Density, Unit:</b>	

**APPLICATION EQUIPMENT**

	A
<b>Appl. Equipment:</b>	BACKPACK
<b>Operating Pressure:</b>	38
<b>Nozzle Type:</b>	AIXR
<b>Nozzle Size:</b>	11002
<b>Nozzle Spacing, Unit:</b>	20 IN
<b>Nozzles/Row:</b>	
<b>Band Width, Unit:</b>	
<b>Boom Length, Unit:</b>	60 IN
<b>Boom Height, Unit:</b>	20 IN
<b>Ground Speed, Unit:</b>	3.5 MPH
<b>Incorporation Equip.:</b>	
<b>Hours to Incorp.:</b>	
<b>Incorp. Depth, Unit:</b>	
<b>Carrier:</b>	WATER
<b>Spray Volume, Unit:</b>	15 GPA
<b>Spray pH:</b>	
<b>Propellant:</b>	CO2
<b>Tank Mix (Y/N):</b>	

Trt No	Treatment Application Comment

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Trial ID: CN-06-21		Study Dir.: ZACH TAYLOR								
Location: PONDER FARM		Investigator: Eric P. Prostko								
Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date  Trt-Eval Interval ARM Action Codes # Subsamples, Dec.										
	----- Zeama Plant - Stunting Percent Apr-23-21	----- Zeama Leaf - Chlorosis Percent Apr-23-21	----- Amapa Control Percent Apr-23-21	----- Rapra Control Percent Apr-23-21	----- Agrass Control Percent Apr-23-21	7 DA-A	7 DA-A	7 DA-A	7 DA-A	
Trt Treatment No. Name	Form Conc	Form Type	Rate Rate Unit	Grow Stg	Appl Code	1	2	3	4	5
1 NTC						0.0 a	0.0 f	0.0 b	0.0 b	0.0 b
2 ROUNDUP POWERMAX 3 ATRAZINE PROWL H20	5.88 4 L 3.8 SC	SL L SC	21.0 oz/a 64.0 oz/a 32.0 oz/a	EPOST A EPOST A EPOST A		0.0 a	0.0 f	99.0 a	99.0 a	99.0 a
3 HM1821A ROUNDUP POWERMAX 3 ATRAZINE	3.81 5.88 4 L	EC SL L	48.0 oz/a 21.0 oz/a 32.0 oz/a	EPOST A EPOST A EPOST A		0.0 a	8.8 c	99.0 a	99.0 a	99.0 a
4 HM1823 ROUNDUP POWERMAX 3	3.52 5.88	SE SL	80.0 oz/a 21.0 oz/a	EPOST A EPOST A		0.0 a	5.0 d	99.0 a	99.0 a	99.0 a
5 HM1824 ROUNDUP POWERMAX 3	3.52 5.88	SE SL	80.0 oz/a 21.0 oz/a	EPOST A EPOST A		0.0 a	6.3 d	99.0 a	99.0 a	99.0 a
6 HALEX GT ATRAZINE INDUCE	4.39 4 L	SC L	58.0 oz/a 32.0 oz/a 0.25 % v/v	EPOST A EPOST A EPOST A		2.5 a	11.3 b	99.0 a	99.0 a	99.0 a
7 IMPACT ROUNDUP POWERMAX 3 ATRAZINE	2.8 5.88 4 L	L SL L	0.75 oz/a 21.0 oz/a 32.0 oz/a	EPOST A EPOST A EPOST A		0.0 a	0.0 f	99.0 a	99.0 a	99.0 a
8 ARMEZON PRO ROUNDUP POWERMAX 3 ATRAZINE	5.35 5.88 4 L	SC SL L	15.0 oz/a 21.0 oz/a 32.0 oz/a	EPOST A EPOST A EPOST A		2.5 a	2.5 e	99.0 a	99.0 a	99.0 a
9 SHIELDEX ROUNDUP POWERMAX 3 ATRAZINE	3.33 5.88 4 L	SC SL L	1.0 oz/a 21.0 oz/a 32.0 oz/a	EPOST A EPOST A EPOST A		0.0 a	0.0 f	99.0 a	99.0 a	99.0 a
10 LAUDIS ROUNDUP POWERMAX 3 ATRAZINE	3.5 5.88 4 L	SC SL L	3.0 oz/a 21.0 oz/a 32.0 oz/a	EPOST A EPOST A EPOST A		0.0 a	0.0 f	99.0 a	99.0 a	99.0 a
11 RESICORE ROUNDUP POWERMAX 3 ATRAZINE	3.29 5.88 4 L	SL SL L	72.0 oz/a 21.0 oz/a 32.0 oz/a	EPOST A EPOST A EPOST A		5.0 a	13.8 a	99.0 a	99.0 a	99.0 a
12 ACURON FLEXI ROUNDUP POWERMAX 3 ATRAZINE	3.26 5.88 4 L	SC SL L	64.0 oz/a 21.0 oz/a 32.0 oz/a	EPOST A EPOST A EPOST A		0.0 a	13.8 a	99.0 a	99.0 a	99.0 a
LSD P=.10						2.95	2.17	.	.	.
Standard Deviation						2.46	1.82	0.00	0.00	0.00
CV						295.42	35.58	0.0	0.0	0.0
Grand Mean						0.83	5.10	90.75	90.75	90.75
Bartlett's X2^						24.117	28.563	.	.	.
P(Bartlett's X2)						0.012*	0.003*	.	.	.

Means followed by same letter or symbol do not significantly differ (P=.10, LSD).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 3,4,5,9,13,14 because error mean square = 0.  
 ^Calculated from residual.

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					----- Zeama Plant - Stunting Percent Apr-30-21	----- Zeama Leaf - Chlorosis Percent Apr-30-21	----- Zeama Leaf - Necrosis Percent Apr-30-21	Amapa ----- Control Percent Apr-30-21	Rapra ----- Control Percent Apr-30-21	
Weed Code					14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	
Crop Code										
Part Rated										
Rating Data Type										
Rating Unit										
Rating Date										
Trt-Eval Interval										
ARM Action Codes										
# Subsamples, Dec.										
Trt Treatment No. Name	Form Conc	Form Type	Rate Rate	Grow Stg	Appl Code	6	7	8	9	10
1 NTC						0.0 d	0.0 e	0.0 b	0.0 b	0.0 d
2 ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST	A	3.8 c	2.5 cde	0.0 b	99.0 a	95.0 b
ATRAZINE		4 L	64.0 oz/a	EPOST	A					
PROWL H20	3.8	SC	32.0 oz/a	EPOST	A					
3 HM1821A	3.81	EC	48.0 oz/a	EPOST	A	8.8 b	5.0 bc	0.0 b	99.0 a	98.0 ab
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST	A					
ATRAZINE		4 L	32.0 oz/a	EPOST	A					
4 HM1823	3.52	SE	80.0 oz/a	EPOST	A	6.3 bc	3.8 cd	0.0 b	99.0 a	94.8 b
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST	A					
5 HM1824	3.52	SE	80.0 oz/a	EPOST	A	8.8 b	2.5 cde	0.0 b	99.0 a	99.0 a
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST	A					
6 HALEX GT	4.39	SC	58.0 oz/a	EPOST	A	3.8 c	5.0 bc	1.3 b	99.0 a	98.0 ab
ATRAZINE		4 L	32.0 oz/a	EPOST	A					
INDUCE			0.25 % v/v	EPOST	A					
7 IMPACT	2.8	L	0.75 oz/a	EPOST	A	5.0 c	0.0 e	1.3 b	99.0 a	91.3 c
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST	A					
ATRAZINE		4 L	32.0 oz/a	EPOST	A					
8 ARMEZON PRO	5.35	SC	15.0 oz/a	EPOST	A	6.3 bc	2.5 cde	0.0 b	99.0 a	95.8 ab
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST	A					
ATRAZINE		4 L	32.0 oz/a	EPOST	A					
9 SHIELDEX	3.33	SC	1.0 oz/a	EPOST	A	3.8 c	1.3 de	0.0 b	99.0 a	89.8 c
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST	A					
ATRAZINE		4 L	32.0 oz/a	EPOST	A					
10 LAUDIS	3.5	SC	3.0 oz/a	EPOST	A	6.3 bc	2.5 cde	0.0 b	99.0 a	96.0 ab
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST	A					
ATRAZINE		4 L	32.0 oz/a	EPOST	A					
11 RESICORE	3.29	SL	72.0 oz/a	EPOST	A	12.5 a	7.5 ab	5.0 a	99.0 a	99.0 a
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST	A					
ATRAZINE		4 L	32.0 oz/a	EPOST	A					
12 ACURON FLEXI	3.26	SC	64.0 oz/a	EPOST	A	8.8 b	8.8 a	1.3 b	99.0 a	97.0 ab
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST	A					
ATRAZINE		4 L	32.0 oz/a	EPOST	A					
LSD P=.10						3.59	3.16	1.48	.	3.44
Standard Deviation						3.00	2.64	1.24	0.00	2.87
CV						48.76	76.75	169.69	0.0	3.27
Grand Mean						6.15	3.44	0.73	90.75	87.79
Bartlett's X2^						11.089	6.531	42.099	.	17.443
P(Bartlett's X2)						0.436	0.836	0.00*	.	0.095

Means followed by same letter or symbol do not significantly differ (P=.10, LSD).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 3,4,5,9,13,14 because error mean square = 0.  
 ^Calculated from residual.

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Trial ID: CN-06-21		Study Dir.: ZACH TAYLOR									
Location: PONDER FARM		Investigator: Eric P. Prostko									
Weed Code	Crop Code	Part Rated	Rating Data Type	Rating Unit	Rating Date	Agrass ----- Control Percent Apr-30-21	----- Zeama Stunt Percent May-13-21	----- Zeama Chlorosi Percent May-13-21	----- Zeama Necrosis Percent May-13-21	Amapa ----- Control Percent May-13-21	
Trt-Eval Interval						14 DA-A	27 DA-A	27 DA-A	27 DA-A	27 DA-A	
ARM Action Codes											
# Subsamples, Dec.											
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit Unit	Grow Stg	Appl Code	11	12	13	
1	NTC					EPOST A		0.0 d	0.0 c	0.0 a	0.0 a
2	ROUNDUP POWERMAX 3	5.88	SL	21.0	oz/a	EPOST A		97.0 ab	0.0 c	0.0 a	
	ATRAZINE	4	L	64.0	oz/a	EPOST A				96.8 a	
	PROWL H20	3.8	SC	32.0	oz/a	EPOST A					
3	HM1821A	3.81	EC	48.0	oz/a	EPOST A		99.0 a	3.8 bc	0.0 a	
	ROUNDUP POWERMAX 3	5.88	SL	21.0	oz/a	EPOST A				0.0 a	
	ATRAZINE	4	L	32.0	oz/a	EPOST A				99.0 a	
4	HM1823	3.52	SE	80.0	oz/a	EPOST A		98.0 a	2.5 bc	0.0 a	
	ROUNDUP POWERMAX 3	5.88	SL	21.0	oz/a	EPOST A				0.0 a	
5	HM1824	3.52	SE	80.0	oz/a	EPOST A		99.0 a	3.8 bc	0.0 a	
	ROUNDUP POWERMAX 3	5.88	SL	21.0	oz/a	EPOST A				99.0 a	
6	HALEX GT	4.39	SC	58.0	oz/a	EPOST A		99.0 a	1.3 bc	0.0 a	
	ATRAZINE	4	L	32.0	oz/a	EPOST A				0.0 a	
	INDUCE					0.25 % v/v	EPOST A				99.0 a
7	IMPACT	2.8	L	0.75	oz/a	EPOST A		93.5 bc	2.5 bc	0.0 a	
	ROUNDUP POWERMAX 3	5.88	SL	21.0	oz/a	EPOST A				0.0 a	
	ATRAZINE	4	L	32.0	oz/a	EPOST A				96.8 a	
8	ARMEZON PRO	5.35	SC	15.0	oz/a	EPOST A		99.0 a	6.3 b	0.0 a	
	ROUNDUP POWERMAX 3	5.88	SL	21.0	oz/a	EPOST A				0.0 a	
	ATRAZINE	4	L	32.0	oz/a	EPOST A				99.0 a	
9	SHIELDEX	3.33	SC	1.0	oz/a	EPOST A		91.0 c	0.0 c	0.0 a	
	ROUNDUP POWERMAX 3	5.88	SL	21.0	oz/a	EPOST A				0.0 a	
	ATRAZINE	4	L	32.0	oz/a	EPOST A				96.8 a	
10	LAUDIS	3.5	SC	3.0	oz/a	EPOST A		96.8 ab	2.5 bc	0.0 a	
	ROUNDUP POWERMAX 3	5.88	SL	21.0	oz/a	EPOST A				0.0 a	
	ATRAZINE	4	L	32.0	oz/a	EPOST A				99.0 a	
11	RESICORE	3.29	SL	72.0	oz/a	EPOST A		99.0 a	13.8 a	0.0 a	
	ROUNDUP POWERMAX 3	5.88	SL	21.0	oz/a	EPOST A				0.0 a	
	ATRAZINE	4	L	32.0	oz/a	EPOST A				99.0 a	
12	ACURON FLEXI	3.26	SC	64.0	oz/a	EPOST A		99.0 a	3.8 bc	0.0 a	
	ROUNDUP POWERMAX 3	5.88	SL	21.0	oz/a	EPOST A				0.0 a	
	ATRAZINE	4	L	32.0	oz/a	EPOST A				99.0 a	
LSD P=.10						3.69	5.05	.	.	2.67	
Standard Deviation						3.09	4.22	0.00	0.00	2.23	
CV						3.46	126.58	0.0	0.0	2.47	
Grand Mean						89.19	3.33	0.00	0.00	90.19	
Bartlett's X2^						40.706	20.437	.	.	42.099	
P(Bartlett's X2)						0.00*	0.04*	.	.	0.00*	

Means followed by same letter or symbol do not significantly differ (P=.10, LSD).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 3,4,5,9,13,14 because error mean square = 0.  
 ^Calculated from residual.



# University of Georgia

WEED CONTROL IN FIELD CORN WITH EMPYROS  
 Trial ID: CN-06-21      Study Dir.: ZACH TAYLOR  
 Location: PONDER FARM    Investigator: Eric P. Prostko

Weed Code						Rapra	Agrass	-----	-----
Crop Code						-----	-----	ZEAMA	ZEAMA
Part Rated									
Rating Data Type						Control	Control	YIELD	YIELD
Rating Unit						Percent	Percent	LBS/PLOT	BU/A
Rating Date						May-13-21	May-13-21	Sep-7-21	Sep-7-21
Trt-Eval Interval						27 DA-A	27 DA-A		
ARM Action Codes									TY1
# Subsamples, Dec.									- 1
Trt Treatment	Form	Form	Rate	Grow	Appl	16	17	18	19
No. Name	Conc	Type	Rate Unit	Stg	Code				
1 NTC						0.0 e	0.0 e	43.5 d	225.1 d
2 ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A		85.0 d	86.3 bc	50.0 ab	258.8 ab
ATRAZINE	4 L		64.0 oz/a	EPOST A					
PROWL H20	3.8 SC		32.0 oz/a	EPOST A					
3 HM1821A	3.81 EC		48.0 oz/a	EPOST A		91.3 c	98.0 ab	47.5 c	245.8 c
ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A					
ATRAZINE	4 L		32.0 oz/a	EPOST A					
4 HM1823	3.52 SE		80.0 oz/a	EPOST A		91.3 c	91.0 abc	48.5 abc	251.0 abc
ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A					
5 HM1824	3.52 SE		80.0 oz/a	EPOST A		94.8 abc	97.0 ab	47.8 bc	247.1 bc
ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A					
6 HALEX GT	4.39 SC		58.0 oz/a	EPOST A		92.3 bc	96.8 ab	48.0 bc	248.4 bc
ATRAZINE	4 L		32.0 oz/a	EPOST A					
INDUCE			0.25 % v/v	EPOST A					
7 IMPACT	2.8 L		0.75 oz/a	EPOST A		93.5 abc	80.0 cd	49.0 abc	253.6 abc
ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A					
ATRAZINE	4 L		32.0 oz/a	EPOST A					
8 ARMEZON PRO	5.35 SC		15.0 oz/a	EPOST A		91.3 c	94.5 ab	50.8 a	262.6 a
ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A					
ATRAZINE	4 L		32.0 oz/a	EPOST A					
9 SHIELDEX	3.33 SC		1.0 oz/a	EPOST A		91.0 c	71.3 d	49.3 abc	254.9 abc
ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A					
ATRAZINE	4 L		32.0 oz/a	EPOST A					
10 LAUDIS	3.5 SC		3.0 oz/a	EPOST A		97.0 a	73.8 d	49.0 abc	253.6 abc
ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A					
ATRAZINE	4 L		32.0 oz/a	EPOST A					
11 RESICORE	3.29 SL		72.0 oz/a	EPOST A		97.0 a	89.3 abc	47.5 c	245.8 c
ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A					
ATRAZINE	4 L		32.0 oz/a	EPOST A					
12 ACURON FLEXI	3.26 SC		64.0 oz/a	EPOST A		96.0 ab	99.0 a	47.3 c	244.5 c
ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A					
ATRAZINE	4 L		32.0 oz/a	EPOST A					
LSD P=.10						4.03	12.16	2.35	12.14
Standard Deviation						3.37	10.16	1.96	10.15
CV						3.96	12.48	4.07	4.07
Grand Mean						85.02	81.40	48.17	249.28
Bartlett's X2^						16.003	24.645	11.336	11.336
P(Bartlett's X2)						0.141	0.01*	0.416	0.416

Means followed by same letter or symbol do not significantly differ (P=.10, LSD).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 3,4,5,9,13,14 because error mean square = 0.  
 ^Calculated from residual.

# University of Georgia

WEED CONTROL IN FIELD CORN WITH EMPYROS					
Trial ID: CN-06-21		Study Dir.: ZACH TAYLOR			
Location: PONDER FARM		Investigator: Eric P. Prostko			
Randomized Complete Block (RCB) AOV For ----- Zeama Plant Stunting Percent Apr-23-21 7 DA-A (Data Column 1)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	366.666667			
Replicate	3	50.000000	16.666667	2.750	0.0583
Treatment	11	116.666667	10.606061	1.750	0.1051
Error	33	200.000000	6.060606		
Randomized Complete Block (RCB) AOV For ----- Zeama Leaf Chlorosis Percent Apr-23-21 7 DA-A (Data Column 2)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	1474.479167			
Replicate	3	9.895833	3.298611	1.000	0.4051
Treatment	11	1355.729167	123.248106	37.364	0.0001
Error	33	108.854167	3.298611		
Randomized Complete Block (RCB) AOV For Amapa ----- Control Percent Apr-23-21 7 DA-A (Data Column 3)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	35937.000000			
Replicate	3	0.000000	0.000000	0.000	1.0000
Treatment	11	35937.000000	3267.000000	0.000	1.0000
Error	33	0.000000	0.000000		
Randomized Complete Block (RCB) AOV For Rapra ----- Control Percent Apr-23-21 7 DA-A (Data Column 4)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	35937.000000			
Replicate	3	0.000000	0.000000	0.000	1.0000
Treatment	11	35937.000000	3267.000000	0.000	1.0000
Error	33	0.000000	0.000000		
Randomized Complete Block (RCB) AOV For Agrass ----- Control Percent Apr-23-21 7 DA-A (Data Column 5)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	35937.000000			
Replicate	3	0.000000	0.000000	0.000	1.0000
Treatment	11	35937.000000	3267.000000	0.000	1.0000
Error	33	0.000000	0.000000		
Randomized Complete Block (RCB) AOV For ----- Zeama Plant Stunting Percent Apr-30-21 14 DA-A (Data Column 6)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	961.979167			
Replicate	3	197.395833	65.798611	7.327	0.0007
Treatment	11	468.229167	42.566288	4.740	0.0002
Error	33	296.354167	8.980429		
Randomized Complete Block (RCB) AOV For ----- Zeama Leaf Chlorosis Percent Apr-30-21 14 DA-A (Data Column 7)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	657.812500			
Replicate	3	101.562500	33.854167	4.864	0.0065
Treatment	11	326.562500	29.687500	4.265	0.0006
Error	33	229.687500	6.960227		
Randomized Complete Block (RCB) AOV For ----- Zeama Leaf Necrosis Percent Apr-30-21 14 DA-A (Data Column 8)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	149.479167			
Replicate	3	5.729167	1.909722	1.247	0.3083
Treatment	11	93.229167	8.475379	5.536	0.0001
Error	33	50.520833	1.530934		
Randomized Complete Block (RCB) AOV For Amapa ----- Control Percent Apr-30-21 14 DA-A (Data Column 9)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	35937.000000			
Replicate	3	0.000000	0.000000	0.000	1.0000
Treatment	11	35937.000000	3267.000000	0.000	1.0000
Error	33	0.000000	0.000000		
Randomized Complete Block (RCB) AOV For Rapra ----- Control Percent Apr-30-21 14 DA-A (Data Column 10)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	34341.916667			
Replicate	3	75.083333	25.027778	3.037	0.0427
Treatment	11	33994.916667	3090.446970	375.059	0.0001
Error	33	271.916667	8.239899		

# University of Georgia

<b>WEED CONTROL IN FIELD CORN WITH EMPYROS</b>						
Trial ID: CN-06-21      Study Dir.: ZACH TAYLOR						
Location: PONDER FARM    Investigator: Eric P. Prostko						
<b>Randomized Complete Block (RCB) AOV For Agrass ----- Control Percent Apr-30-21 14 DA-A (Data Column 11)</b>						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	47	35347.312500				
Replicate	3	33.562500	11.187500	1.175	0.3341	
Treatment	11	34999.562500	3181.778409	334.191	0.0001	
Error	33	314.187500	9.520833			
<b>Randomized Complete Block (RCB) AOV For ----- Zeama Stunt Percent May-13-21 27 DA-A (Data Column 12)</b>						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	47	1266.666667				
Replicate	3	50.000000	16.666667	0.936	0.4342	
Treatment	11	629.166667	57.196970	3.213	0.0046	
Error	33	587.500000	17.803030			
<b>Randomized Complete Block (RCB) AOV For ----- Zeama Chlorosi Percent May-13-21 27 DA-A (Data Column 13)</b>						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	47	0.000000000000				
Replicate	3	0.000000000000	0.000000000000	0.000	1.0000	
Treatment	11	0.000000000000	0.000000000000	0.000	1.0000	
Error	33	0.000000000000	0.000000000000			
<b>Randomized Complete Block (RCB) AOV For ----- Zeama Necrosis Percent May-13-21 27 DA-A (Data Column 14)</b>						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	47	0.000000000000				
Replicate	3	0.000000000000	0.000000000000	0.000	1.0000	
Treatment	11	0.000000000000	0.000000000000	0.000	1.0000	
Error	33	0.000000000000	0.000000000000			
<b>Randomized Complete Block (RCB) AOV For Amapa ----- Control Percent May-13-21 27 DA-A (Data Column 15)</b>						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	47	35719.312500				
Replicate	3	18.562500	6.187500	1.247	0.3083	
Treatment	11	35537.062500	3230.642045	651.309	0.0001	
Error	33	163.687500	4.960227			
<b>Randomized Complete Block (RCB) AOV For Rapra ----- Control Percent May-13-21 27 DA-A (Data Column 16)</b>						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	47	32788.979167				
Replicate	3	386.895833	128.965278	11.384	0.0001	
Treatment	11	32028.229167	2911.657197	257.011	0.0001	
Error	33	373.854167	11.328914			
<b>Randomized Complete Block (RCB) AOV For Agrass ----- Control Percent May-13-21 27 DA-A (Data Column 17)</b>						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	47	37129.479167				
Replicate	3	912.729167	304.243056	2.948	0.0471	
Treatment	11	32810.729167	2982.793561	28.899	0.0001	
Error	33	3406.020833	103.212753			
<b>Randomized Complete Block (RCB) AOV For ----- ZEAMA YIELD LBS/PLOT Sep-7-21 (Data Column 18)</b>						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	47	298.666667				
Replicate	3	26.166667	8.722222	2.269	0.0987	
Treatment	11	145.666667	13.242424	3.445	0.0028	
Error	33	126.833333	3.843434			
<b>Randomized Complete Block (RCB) AOV For ----- ZEAMA YIELD BU/A Sep-7-21 TY1 1 (Data Column 19)</b>						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	47	7999.350166				
Replicate	3	700.835924	233.611975	2.269	0.0987	
Treatment	11	3901.468775	354.678980	3.445	0.0028	
Error	33	3397.045467	102.940772			
<b>Part Rated</b>						
Plant = PLANT / PLANT BIOMASS (includes Shrub, Tree, Turf)						
Leaf = LEAF / FOLIAGE						
<u>ARM Action Codes</u>						
TY1 = 5.17528149*[18]						

# University of Georgia

WEED CONTROL IN FIELD CORN WITH EMPYROS

Trial ID: CN-06-21      Study Dir.: ZACH TAYLOR  
 Location: PONDER FARM      Investigator: Eric P. Prostko

Weed Code						----- Zeama Plant - Stunting Percent Apr-23-21 7 DA-A	----- Zeama Leaf - Chlorosis Percent Apr-23-21 7 DA-A	Amapa ----- Control Percent Apr-23-21 7 DA-A	Rapra ----- Control Percent Apr-23-21 7 DA-A	Agrass ----- Control Percent Apr-23-21 7 DA-A
Trt Treatment	Form	Form	Rate	Grow	Appl					
No. Name	Conc	Type	Rate Unit	Stg	Code Plot	1	2	3	4	5
1 NTC					101	0.0	0.0	0.0	0.0	0.0
					207	0.0	0.0	0.0	0.0	0.0
					311	0.0	0.0	0.0	0.0	0.0
					409	0.0	0.0	0.0	0.0	0.0
					Mean =	0.0	0.0	0.0	0.0	0.0
2 ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A	102	0.0	0.0	99.0	99.0	99.0
ATRAZINE	4	L	64.0 oz/a	EPOST A	205	0.0	0.0	99.0	99.0	99.0
PROWL H20	3.8	SC	32.0 oz/a	EPOST A	302	0.0	0.0	99.0	99.0	99.0
					405	0.0	0.0	99.0	99.0	99.0
					Mean =	0.0	0.0	99.0	99.0	99.0
3 HM1821A	3.81	EC	48.0 oz/a	EPOST A	103	0.0	10.0	99.0	99.0	99.0
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A	208	0.0	10.0	99.0	99.0	99.0
ATRAZINE	4	L	32.0 oz/a	EPOST A	309	0.0	10.0	99.0	99.0	99.0
					402	0.0	5.0	99.0	99.0	99.0
					Mean =	0.0	8.8	99.0	99.0	99.0
4 HM1823	3.52	SE	80.0 oz/a	EPOST A	104	0.0	5.0	99.0	99.0	99.0
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A	210	0.0	5.0	99.0	99.0	99.0
					303	0.0	5.0	99.0	99.0	99.0
					401	0.0	5.0	99.0	99.0	99.0
					Mean =	0.0	5.0	99.0	99.0	99.0
5 HM1824	3.52	SE	80.0 oz/a	EPOST A	105	0.0	10.0	99.0	99.0	99.0
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A	209	0.0	5.0	99.0	99.0	99.0
					312	0.0	5.0	99.0	99.0	99.0
					411	0.0	5.0	99.0	99.0	99.0
					Mean =	0.0	6.3	99.0	99.0	99.0
6 HALEX GT	4.39	SC	58.0 oz/a	EPOST A	106	0.0	10.0	99.0	99.0	99.0
ATRAZINE	4	L	32.0 oz/a	EPOST A	202	10.0	10.0	99.0	99.0	99.0
INDUCE			0.25 % v/v	EPOST A	306	0.0	15.0	99.0	99.0	99.0
					410	0.0	10.0	99.0	99.0	99.0
					Mean =	2.5	11.3	99.0	99.0	99.0
7 IMPACT	2.8	L	0.75 oz/a	EPOST A	107	0.0	0.0	99.0	99.0	99.0
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A	211	0.0	0.0	99.0	99.0	99.0
ATRAZINE	4	L	32.0 oz/a	EPOST A	304	0.0	0.0	99.0	99.0	99.0
					408	0.0	0.0	99.0	99.0	99.0
					Mean =	0.0	0.0	99.0	99.0	99.0
8 ARMEZON PRO	5.35	SC	15.0 oz/a	EPOST A	108	0.0	0.0	99.0	99.0	99.0
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A	204	10.0	0.0	99.0	99.0	99.0
ATRAZINE	4	L	32.0 oz/a	EPOST A	301	0.0	5.0	99.0	99.0	99.0
					406	0.0	5.0	99.0	99.0	99.0
					Mean =	2.5	2.5	99.0	99.0	99.0
9 SHIELDDEX	3.33	SC	1.0 oz/a	EPOST A	109	0.0	0.0	99.0	99.0	99.0
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A	201	0.0	0.0	99.0	99.0	99.0
ATRAZINE	4	L	32.0 oz/a	EPOST A	310	0.0	0.0	99.0	99.0	99.0
					412	0.0	0.0	99.0	99.0	99.0
					Mean =	0.0	0.0	99.0	99.0	99.0
10 LAUDIS	3.5	SC	3.0 oz/a	EPOST A	110	0.0	0.0	99.0	99.0	99.0
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A	212	0.0	0.0	99.0	99.0	99.0
ATRAZINE	4	L	32.0 oz/a	EPOST A	307	0.0	0.0	99.0	99.0	99.0
					404	0.0	0.0	99.0	99.0	99.0
					Mean =	0.0	0.0	99.0	99.0	99.0

# University of Georgia

WEED CONTROL IN FIELD CORN WITH EMPYROS

Trial ID: CN-06-21      Study Dir.: ZACH TAYLOR  
 Location: PONDER FARM    Investigator: Eric P. Prostko

Weed Code						----- Zeama Plant - Stunting Percent Apr-23-21 7 DA-A	----- Zeama Leaf - Chlorosis Percent Apr-23-21 7 DA-A	Amapa ----- Control Percent Apr-23-21 7 DA-A	Rapra ----- Control Percent Apr-23-21 7 DA-A	Agrass ----- Control Percent Apr-23-21 7 DA-A			
Crop Code													
Part Rated													
Rating Data Type													
Rating Unit													
Rating Date													
Trt-Eval Interval													
ARM Action Codes													
# Subsamples, Dec.													
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5
11	RESICORE	3.29	SL	72.0	oz/a	EPOST	A	111	10.0	15.0	99.0	99.0	99.0
	ROUNDUP POWERMAX 3	5.88	SL	21.0	oz/a	EPOST	A	206	10.0	15.0	99.0	99.0	99.0
	ATRAZINE		L	32.0	oz/a	EPOST	A	308	0.0	15.0	99.0	99.0	99.0
								403	0.0	10.0	99.0	99.0	99.0
								Mean =	5.0	13.8	99.0	99.0	99.0
12	ACURON FLEXI	3.26	SC	64.0	oz/a	EPOST	A	112	0.0	10.0	99.0	99.0	99.0
	ROUNDUP POWERMAX 3	5.88	SL	21.0	oz/a	EPOST	A	203	0.0	15.0	99.0	99.0	99.0
	ATRAZINE		L	32.0	oz/a	EPOST	A	305	0.0	15.0	99.0	99.0	99.0
								407	0.0	15.0	99.0	99.0	99.0
								Mean =	0.0	13.8	99.0	99.0	99.0

# University of Georgia

WEED CONTROL IN FIELD CORN WITH EMPYROS

Trial ID: CN-06-21      Study Dir.: ZACH TAYLOR  
 Location: PONDER FARM      Investigator: Eric P. Prostko

Weed Code					----- Zeama Plant - Stunting Percent Apr-30-21 14 DA-A	----- Zeama Leaf - Chlorosis Percent Apr-30-21 14 DA-A	----- Zeama Leaf - Necrosis Percent Apr-30-21 14 DA-A	Amapa ----- Control Percent Apr-30-21 14 DA-A	Rapra ----- Control Percent Apr-30-21 14 DA-A
Part Rated					6	7	8	9	10
Rating Data Type									
Rating Unit									
Rating Date									
Trt-Eval Interval									
ARM Action Codes									
# Subsamples, Dec.									
Trt Treatment	Form	Form	Rate	Grow	Appl				
No. Name	Conc	Type	Rate Unit	Stg	Code Plot				
1 NTC					101	0.0	0.0	0.0	0.0
					207	0.0	0.0	0.0	0.0
					311	0.0	0.0	0.0	0.0
					409	0.0	0.0	0.0	0.0
					Mean =	0.0	0.0	0.0	0.0
2 ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A	102	0.0	0.0	0.0	99.0
ATRAZINE	4	L	64.0 oz/a	EPOST A	205	5.0	5.0	0.0	99.0
PROWL H20	3.8	SC	32.0 oz/a	EPOST A	302	0.0	0.0	0.0	99.0
					405	10.0	5.0	0.0	99.0
					Mean =	3.8	2.5	0.0	99.0
3 HM1821A	3.81	EC	48.0 oz/a	EPOST A	103	5.0	5.0	0.0	99.0
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A	208	5.0	0.0	0.0	99.0
ATRAZINE	4	L	32.0 oz/a	EPOST A	309	15.0	5.0	0.0	99.0
					402	10.0	10.0	0.0	99.0
					Mean =	8.8	5.0	0.0	99.0
4 HM1823	3.52	SE	80.0 oz/a	EPOST A	104	5.0	5.0	0.0	99.0
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A	210	5.0	5.0	0.0	99.0
					303	5.0	0.0	0.0	99.0
					401	10.0	5.0	0.0	99.0
					Mean =	6.3	3.8	0.0	99.0
5 HM1824	3.52	SE	80.0 oz/a	EPOST A	105	5.0	0.0	0.0	99.0
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A	209	5.0	0.0	0.0	99.0
					312	15.0	5.0	0.0	99.0
					411	10.0	5.0	0.0	99.0
					Mean =	8.8	2.5	0.0	99.0
6 HALEX GT	4.39	SC	58.0 oz/a	EPOST A	106	0.0	5.0	0.0	99.0
ATRAZINE	4	L	32.0 oz/a	EPOST A	202	5.0	0.0	0.0	99.0
INDUCE			0.25 % v/v	EPOST A	306	5.0	5.0	0.0	99.0
					410	5.0	10.0	5.0	99.0
					Mean =	3.8	5.0	1.3	99.0
7 IMPACT	2.8	L	0.75 oz/a	EPOST A	107	0.0	0.0	0.0	99.0
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A	211	5.0	0.0	0.0	99.0
ATRAZINE	4	L	32.0 oz/a	EPOST A	304	5.0	0.0	0.0	99.0
					408	10.0	0.0	5.0	99.0
					Mean =	5.0	0.0	1.3	99.0
8 ARMEZON PRO	5.35	SC	15.0 oz/a	EPOST A	108	5.0	0.0	0.0	99.0
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A	204	10.0	5.0	0.0	99.0
ATRAZINE	4	L	32.0 oz/a	EPOST A	301	0.0	0.0	0.0	99.0
					406	10.0	5.0	0.0	99.0
					Mean =	6.3	2.5	0.0	99.0
9 SHIELDDEX	3.33	SC	1.0 oz/a	EPOST A	109	0.0	0.0	0.0	99.0
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A	201	0.0	0.0	0.0	99.0
ATRAZINE	4	L	32.0 oz/a	EPOST A	310	5.0	0.0	0.0	99.0
					412	10.0	5.0	0.0	99.0
					Mean =	3.8	1.3	0.0	99.0
10 LAUDIS	3.5	SC	3.0 oz/a	EPOST A	110	5.0	5.0	0.0	99.0
ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A	212	5.0	0.0	0.0	99.0
ATRAZINE	4	L	32.0 oz/a	EPOST A	307	5.0	5.0	0.0	99.0
					404	10.0	0.0	0.0	99.0
					Mean =	6.3	2.5	0.0	99.0

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WEED CONTROL IN FIELD CORN WITH EMPYROS

Trial ID: CN-06-21      Study Dir.: ZACH TAYLOR  
 Location: PONDER FARM    Investigator: Eric P. Prostko

	----- Zeama Plant - Stunting Percent Apr-30-21 14 DA-A	----- Zeama Leaf - Chlorosis Percent Apr-30-21 14 DA-A	----- Zeama Leaf - Necrosis Percent Apr-30-21 14 DA-A	Amapa ----- Control Percent Apr-30-21 14 DA-A	Rapra ----- Control Percent Apr-30-21 14 DA-A																					
Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date Trt-Eval Interval ARM Action Codes # Subsamples, Dec.																										
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Trt Treatment</td> <td style="width: 10%;">Form Form</td> <td style="width: 10%;">Rate</td> <td style="width: 10%;">Grow</td> <td style="width: 10%;">Appl</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>No. Name</td> <td>Conc Type</td> <td>Rate Unit</td> <td>Stg</td> <td>Code</td> <td>Plot</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td style="text-align: center;">8</td> <td style="text-align: center;">9</td> <td style="text-align: center;">10</td> </tr> </table>	Trt Treatment	Form Form	Rate	Grow	Appl						No. Name	Conc Type	Rate Unit	Stg	Code	Plot	6	7	8	9	10					
Trt Treatment	Form Form	Rate	Grow	Appl																						
No. Name	Conc Type	Rate Unit	Stg	Code	Plot	6	7	8	9	10																
11 RESICORE	3.29 SL	72.0 oz/a	EPOST A	111		10.0	5.0	5.0	99.0	99.0																
ROUNDUP POWERMAX 3	5.88 SL	21.0 oz/a	EPOST A	206		10.0	5.0	5.0	99.0	99.0																
ATRAZINE	4 L	32.0 oz/a	EPOST A	308		15.0	10.0	5.0	99.0	99.0																
				403		15.0	10.0	5.0	99.0	99.0																
				Mean =		12.5	7.5	5.0	99.0	99.0																
12 ACURON FLEXI	3.26 SC	64.0 oz/a	EPOST A	112		10.0	5.0	5.0	99.0	99.0																
ROUNDUP POWERMAX 3	5.88 SL	21.0 oz/a	EPOST A	203		5.0	5.0	0.0	99.0	95.0																
ATRAZINE	4 L	32.0 oz/a	EPOST A	305		10.0	10.0	0.0	99.0	99.0																
				407		10.0	15.0	0.0	99.0	95.0																
				Mean =		8.8	8.8	1.3	99.0	97.0																

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WEED CONTROL IN FIELD CORN WITH EMPYROS

Trial ID: CN-06-21      Study Dir.: ZACH TAYLOR  
 Location: PONDER FARM      Investigator: Eric P. Prostko

Weed Code	Agrass	-----	-----	-----	Amapa
Crop Code	-----	Zeama	Zeama	Zeama	-----
Part Rated	Control	Stunt	Chlorosi	Necrosis	Control
Rating Data Type	Percent	Percent	Percent	Percent	Percent
Rating Unit	Apr-30-21	May-13-21	May-13-21	May-13-21	May-13-21
Rating Date	14 DA-A	27 DA-A	27 DA-A	27 DA-A	27 DA-A
Trt-Eval Interval					
ARM Action Codes					
# Subsamples, Dec.					
Trt Treatment	Form	Form	Rate	Grow	Appl
No. Name	Conc	Type	Rate Unit	Stg	Code Plot
1 NTC					101 0.0
					207 0.0
					311 0.0
					409 0.0
					Mean = 0.0
2 ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A	102 99.0
ATRAZINE	4 L		64.0 oz/a	EPOST A	205 99.0
PROWL H20	3.8 SC		32.0 oz/a	EPOST A	302 95.0
					405 95.0
					Mean = 97.0
3 HM1821A	3.81 EC		48.0 oz/a	EPOST A	103 99.0
ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A	208 99.0
ATRAZINE	4 L		32.0 oz/a	EPOST A	309 99.0
					402 99.0
					Mean = 99.0
4 HM1823	3.52 SE		80.0 oz/a	EPOST A	104 99.0
ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A	210 99.0
					303 99.0
					401 95.0
					Mean = 98.0
5 HM1824	3.52 SE		80.0 oz/a	EPOST A	105 99.0
ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A	209 99.0
					312 99.0
					411 99.0
					Mean = 99.0
6 HALEX GT	4.39 SC		58.0 oz/a	EPOST A	106 99.0
ATRAZINE	4 L		32.0 oz/a	EPOST A	202 99.0
INDUCE			0.25 % v/v	EPOST A	306 99.0
					410 99.0
					Mean = 99.0
7 IMPACT	2.8 L		0.75 oz/a	EPOST A	107 95.0
ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A	211 85.0
ATRAZINE	4 L		32.0 oz/a	EPOST A	304 99.0
					408 95.0
					Mean = 93.5
8 ARMEZON PRO	5.35 SC		15.0 oz/a	EPOST A	108 99.0
ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A	204 99.0
ATRAZINE	4 L		32.0 oz/a	EPOST A	301 99.0
					406 99.0
					Mean = 99.0
9 SHIELDDEX	3.33 SC		1.0 oz/a	EPOST A	109 95.0
ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A	201 99.0
ATRAZINE	4 L		32.0 oz/a	EPOST A	310 85.0
					412 85.0
					Mean = 91.0
10 LAUDIS	3.5 SC		3.0 oz/a	EPOST A	110 99.0
ROUNDUP POWERMAX 3	5.88 SL		21.0 oz/a	EPOST A	212 99.0
ATRAZINE	4 L		32.0 oz/a	EPOST A	307 99.0
					404 90.0
					Mean = 96.8



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WEED CONTROL IN FIELD CORN WITH EMPYROS

Trial ID: CN-06-21      Study Dir.: ZACH TAYLOR  
 Location: PONDER FARM    Investigator: Eric P. Prostko

	Agrass -----	----- Zeama	----- Zeama	----- Zeama	Amapa -----
	Control Percent	Stunt Percent	Chlorosi Percent	Necrosis Percent	Control Percent
	Apr-30-21 14 DA-A	May-13-21 27 DA-A	May-13-21 27 DA-A	May-13-21 27 DA-A	May-13-21 27 DA-A
Trt Treatment No. Name	Form Form Conc Type	Rate Rate Unit	Grow Stg	Appl Code	Plot
11 RESICORE	3.29 SL	72.0 oz/a	EPOST A	111	99.0
ROUNDUP POWERMAX 3	5.88 SL	21.0 oz/a	EPOST A	206	99.0
ATRAZINE	4 L	32.0 oz/a	EPOST A	308	99.0
				403	99.0
				Mean =	99.0
12 ACURON FLEXI	3.26 SC	64.0 oz/a	EPOST A	112	99.0
ROUNDUP POWERMAX 3	5.88 SL	21.0 oz/a	EPOST A	203	99.0
ATRAZINE	4 L	32.0 oz/a	EPOST A	305	99.0
				407	99.0
				Mean =	99.0
					11
					12
					13
					14
					15

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WEED CONTROL IN FIELD CORN WITH EMPYROS

Trial ID: CN-06-21      Study Dir.: ZACH TAYLOR  
 Location: PONDER FARM      Investigator: Eric P. Prostko

Weed Code						Rapra	Agrass	-----	-----		
Crop Code						-----	-----	ZEAMA	ZEAMA		
Part Rated											
Rating Data Type						Control	Control	YIELD	YIELD		
Rating Unit						Percent	Percent	LBS/PLOT	BU/A		
Rating Date						May-13-21	May-13-21	Sep-7-21	Sep-7-21		
Trt-Eval Interval						27 DA-A	27 DA-A				
ARM Action Codes									TY1		
# Subsamples, Dec.									- 1		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Grow Stg	Appl Code	Plot	16	17	18	19
1	NTC						101	0.0	0.0	42.0	217.4
							207	0.0	0.0	45.0	232.9
							311	0.0	0.0	43.0	222.5
							409	0.0	0.0	44.0	227.7
							Mean =	0.0	0.0	43.5	225.1
2	ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A		102	95.0	95.0	51.0	263.9
	ATRAZINE	4	L	64.0 oz/a	EPOST A		205	85.0	85.0	48.0	248.4
	PROWL H20	3.8	SC	32.0 oz/a	EPOST A		302	80.0	90.0	50.0	258.8
							405	80.0	75.0	51.0	263.9
							Mean =	85.0	86.3	50.0	258.8
3	HM1821A	3.81	EC	48.0 oz/a	EPOST A		103	95.0	99.0	45.0	232.9
	ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A		208	95.0	99.0	47.0	243.2
	ATRAZINE	4	L	32.0 oz/a	EPOST A		309	95.0	99.0	47.0	243.2
							402	80.0	95.0	51.0	263.9
							Mean =	91.3	98.0	47.5	245.8
4	HM1823	3.52	SE	80.0 oz/a	EPOST A		104	95.0	99.0	49.0	253.6
	ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A		210	95.0	95.0	47.0	243.2
							303	85.0	85.0	45.0	232.9
							401	90.0	85.0	53.0	274.3
							Mean =	91.3	91.0	48.5	251.0
5	HM1824	3.52	SE	80.0 oz/a	EPOST A		105	99.0	99.0	47.0	243.2
	ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A		209	95.0	95.0	48.0	248.4
							312	95.0	95.0	50.0	258.8
							411	90.0	99.0	46.0	238.1
							Mean =	94.8	97.0	47.8	247.1
6	HALEX GT	4.39	SC	58.0 oz/a	EPOST A		106	99.0	99.0	48.0	248.4
	ATRAZINE	4	L	32.0 oz/a	EPOST A		202	90.0	99.0	47.0	243.2
	INDUCE			0.25 % v/v	EPOST A		306	90.0	99.0	51.0	263.9
							410	90.0	90.0	46.0	238.1
							Mean =	92.3	96.8	48.0	248.4
7	IMPACT	2.8	L	0.75 oz/a	EPOST A		107	99.0	95.0	48.0	248.4
	ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A		211	95.0	65.0	48.0	248.4
	ATRAZINE	4	L	32.0 oz/a	EPOST A		304	90.0	85.0	51.0	263.9
							408	90.0	75.0	49.0	253.6
							Mean =	93.5	80.0	49.0	253.6
8	ARMEZON PRO	5.35	SC	15.0 oz/a	EPOST A		108	95.0	99.0	49.0	253.6
	ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A		204	90.0	95.0	50.0	258.8
	ATRAZINE	4	L	32.0 oz/a	EPOST A		301	90.0	85.0	54.0	279.5
							406	90.0	99.0	50.0	258.8
							Mean =	91.3	94.5	50.8	262.6
9	SHIELDDEX	3.33	SC	1.0 oz/a	EPOST A		109	99.0	85.0	48.0	248.4
	ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A		201	85.0	85.0	50.0	258.8
	ATRAZINE	4	L	32.0 oz/a	EPOST A		310	95.0	50.0	46.0	238.1
							412	85.0	65.0	53.0	274.3
							Mean =	91.0	71.3	49.3	254.9
10	LAUDIS	3.5	SC	3.0 oz/a	EPOST A		110	99.0	65.0	47.0	243.2
	ROUNDUP POWERMAX 3	5.88	SL	21.0 oz/a	EPOST A		212	99.0	85.0	48.0	248.4
	ATRAZINE	4	L	32.0 oz/a	EPOST A		307	95.0	95.0	50.0	258.8
							404	95.0	50.0	51.0	263.9
							Mean =	97.0	73.8	49.0	253.6

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WEED CONTROL IN FIELD CORN WITH EMPYROS

Trial ID: CN-06-21      Study Dir.: ZACH TAYLOR  
 Location: PONDER FARM      Investigator: Eric P. Prostko

						Rapra -----	Agrass -----	----- ZEAMA	----- ZEAMA			
						Control Percent May-13-21 27 DA-A	Control Percent May-13-21 27 DA-A	YIELD LBS/PLOT Sep-7-21	YIELD BU/A Sep-7-21			
								TY1 - 1				
Trt	Treatment	Form	Form	Rate	Grow	Appl						
No.	Name	Conc	Type	Rate	Unit	Stg	Code	Plot				
						16	17	18	19			
11	RESICORE	3.29	SL	72.0	oz/a	EPOST	A	111	99.0	99.0	46.0	238.1
	ROUNDUP POWERMAX 3	5.88	SL	21.0	oz/a	EPOST	A	206	99.0	99.0	48.0	248.4
	ATRAZINE	4	L	32.0	oz/a	EPOST	A	308	95.0	99.0	48.0	248.4
								403	95.0	60.0	48.0	248.4
								Mean =	97.0	89.3	47.5	245.8
12	ACURON FLEXI	3.26	SC	64.0	oz/a	EPOST	A	112	99.0	99.0	47.0	243.2
	ROUNDUP POWERMAX 3	5.88	SL	21.0	oz/a	EPOST	A	203	95.0	99.0	46.0	238.1
	ATRAZINE	4	L	32.0	oz/a	EPOST	A	305	95.0	99.0	49.0	253.6
								407	95.0	99.0	47.0	243.2
								Mean =	96.0	99.0	47.3	244.5

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WEED CONTROL IN FIELD CORN WITH EMPYROS

Trial ID: CN-06-21      Study Dir.: ZACH TAYLOR  
Location: PONDER FARM    Investigator: Eric P. Prostko

Part Rated

Plant = PLANT / PLANT BIOMASS (includes Shrub, Tree, Turf)

Leaf = LEAF / FOLIAGE

ARM Action Codes

TY1 = 5.17528149\*[18]