University of Georgia

RESIDUAL WEED CONTROL WITH FIELD CORN HPPD HERBICIDES
BARE-GROUND/NON-CROP
Trial ID: CN-02-19 Study Dir.:
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	210	312	405
2	CALLISTO	4	SC	3.0	oz/a	PRE	A	2.343 mL/mx	1497.7 mL	102	206	303	401
3	IMPACT	2.8	L	1.0	oz/a	PRE	A	0.7812 mL/mx	1499.2 mL	103	212	311	412
4	IMPACT Z	4.26	L	8.0	oz/a	PRE	A	6.249 mL/mx	1493.8 mL	104	201	304	407
5	IMPACT Z	4.26	L	10.7	oz/a	PRE	A	8.358 mL/mx	1491.6 mL	105	203	305	406
6	LAUDIS	3.5	SL	3.0	oz/a	PRE	A	2.343 mL/mx	1497.7 mL	106	208	309	410
7	PROWL H20	3.8	AS	32.0	oz/a	PRE	A	25.0 mL/mx	1475 mL	107	211	306	404
8	DUAL II MAGNUM	7.64	EC	16.0	oz/a	PRE	A	12.5 mL/mx	1487.5 mL	108	209	307	408
9	ZIDUA	4.17	SC	2.45	oz/a	PRE	A	1.914 mL/mx	1498.1 mL	109	207	301	403
10	WARRANT	3	ME	48.0	oz/a	PRE	A	37.5 mL/mx	1462.5 mL	110	202	308	411
11	ATRAZINE	4	L	32.0	oz/a	PRE	A	25.0 mL/mx	1475 mL	111	204	302	409
12	NTC								-	112	205	310	402

Sort Order: Treatment

Trial Comments

CALLISTO = MESOTRIONE
IMPACT = TOPRAMEZONE
LAUDIS = TEMBOTRIONE
IMPACT Z = TOPRAMEZONE (0.26 LBS/GAL) + ATRAZINE (4 LB/GAL)

LAST TILLAGE ON APRIL 8.

ANNUAL GRASS: A NON-UNIFORM MIXTURE OF ANNUAL GRASSES INCLUDING TEXAS PANICUM, CRABGRASS, GOOSEGRASS,CROWFOOTGRASS.

SUMMARY:

1) AT 50 DAT, THE FOLLOWING OBSERVATIONS WERE MADE:

A) ALL TREATMENTS PROVIDED 90%+ CONTROL OF PALMER AMARANTH EXCEPT THE FOLLOWING:

LAUDIS (88% CONTROL)
PROWL H2O (75% CONTROL)
ATRAZINE (86% CONTROL)

B) ALL TREATMENTS PROVIDED 89%+ CONTROL OF WILD RADISH EXCEPT THE FOLLOWING:

DUAL II MAGNUM (81% CONTROL)
WARRANT (87% CONTROL)

C) THE ONLY TREATMENTS THAT PROVIDED 95%+ CONTROL OF ANNUAL GRASSES WERE PROWL H2O, DUAL II MAGNUM, AND ZIDUA. IMPACT AND LAUDIS PROVIDED 83-90% CONTROL OF ANNUAL GRASSES.

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GENERAL TRIAL INFORMATION

Study Director: _____ **Title:** _____
Affiliation: _____ **Postal Code:** _____

Investigator: Eric P. Prostko **Title:** _____
Affiliation: _____ **Postal Code:** _____

Trial Status: E **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 PANIC/CROW/CRAB/GOOSE
Weed 3. RAPRA WILD RADISH **4.** _____ _____

Crop 1: _____ BAREGROUND **Variety:** _____ **Planting Date:** _____
Planting Method: _____ **Rate:** _____ _____ **Depth:** ____ __
Perennial Age: ____ _____ **Row Spacing:** ____ _____ **Seed Bed:** _____
Soil Temperature: ____ _ **Soil Moisture:** _____ **Emergence Date:** _____

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	Pesticides	Year
1.	PEANUT	2018	____

MAINTENANCE

Field Prep./Maintenance: _____

No.	Date	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	_____	_____	____	_____	___	_____	_____

SOIL DESCRIPTION

Texture: SAND **% OM:** 0.91 **% Sand:** 94 **% Silt:** 0 **% Clay:** 6
pH: 6.0 **CEC:** 3.6 **Soil Name:** TIFTON **Fertility Level:** GOOD

MOISTURE CONDITIONS

On:	Date	Time	Amount	Unit	Type	Interval	Unit
1.	Apr-9-19	_____	0.16	IN	RAIN	_____	___
2.	Apr-11-19	_____	0.50	IN	SPRINKLER - LATERAL MOVE	_____	___
3.	Apr-14-19	_____	0.83	IN	RAINFALL	_____	___
4.	Apr-19-19	_____	1.43	IN	RAINFALL	_____	___
5.	Apr-25-19	_____	0.05	IN	RAINFALL	_____	___
6.	Apr-26-19	_____	0.03	IN	RAINFALL	_____	___
7.	Apr-29-19	_____	0.5	IN	SPRINKLER - LATERAL MOVE	_____	___
8.	May-6-19	_____	0.75	IN	SPRINKLER - LATERAL MOVE	_____	___
9.	May-9-19	_____	0.195	IN	RAINFALL	_____	___
10.	May-10-19	_____	0.11	IN	RAINFALL	_____	___
11.	May-11-19	_____	0.65	IN	RAINFALL	_____	___
12.	May-12-19	_____	0.27	IN	RAINFALL	_____	___
13.	May-17-19	_____	0.62	IN	RAINFALL	_____	___

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

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APPLICATION DESCRIPTION

			A	B	C	D	E	F
Application Date:	Apr-10-19							
Time of Day:	7:55 AM							
Application Method:	BROADCAST							
Application Timing:	PRE							
Applic. Placement:	SOIL							
Air Temp., Unit:	62	F						
% Relative Humidity:	96							
Wind Velocity, Unit:	2	MPH						
Dew Presence (Y/N):	N							
Water Hardness:	--							
Soil Temp., Unit:	66	F						
Soil Moisture:	OPTIMUM							
% Cloud Cover:	0							

CROP STAGE AT EACH APPLICATION

	A	B	C	D	E	F
Crop 1 Stage:						
Stage Scale:						
Height, Unit:						

WEED STAGE AT EACH APPLICATION

	A	B	C	D	E	F
Weed 1 Stage: AMAPA						
Stage Scale:						
Density, Unit:						
Weed 2 Stage: AGRASS						
Stage Scale:						
Density, Unit:						
Weed 3 Stage: RAPRA						
Stage Scale:						
Density, Unit:						

APPLICATION EQUIPMENT

			A	B	C	D	E	F
Appl. Equipment:	BACKPACK							
Operating Pressure:	28							
Nozzle Type:	AIXR							
Nozzle Size:	11002							
Nozzle Spacing, Unit:	15	IN						
Nozzles/Row:	2							
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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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6
	Weed Code							AMAPA	RAPRA	AMAPA	RAPRA	AGRASS	AMAPA
	Crop Code							-----	-----	-----	-----	-----	-----
	Rating Data Type							Control	Control	Control	Control	Control	Control
	Rating Unit							Percent	Percent	Percent	Percent	Percent	Percent
	Rating Date							Apr-23-19	Apr-23-19	May-2-19	May-2-19	May-2-19	May-10-19
	Trt-Eval Interval							13 DA-A	13 DA-A	22 DA-A	22 DA-A	22 DA-A	30 DA-A
1	NTC							0.0 b	0.0 c	0.0 c	0.0 c	0.0 c	0.0 f
2	CALLISTO	4	SC	3.0	oz/a	PRE	A	99.0 a	98.0 a	99.0 a	86.8 ab	93.5 a	90.0 de
3	IMPACT	2.8	L	1.0	oz/a	PRE	A	99.0 a	95.5 a	98.0 a	90.5 ab	93.5 a	92.5 cd
4	IMPACT Z	4.26	L	8.0	oz/a	PRE	A	99.0 a	99.0 a	99.0 a	99.0 a	96.8 a	97.0 abc
5	IMPACT Z	4.26	L	10.7	oz/a	PRE	A	99.0 a	99.0 a	98.0 a	95.8 a	98.0 a	99.0 a
6	LAUDIS	3.5	SL	3.0	oz/a	PRE	A	99.0 a	98.0 a	97.0 a	98.0 a	98.0 a	93.8 bcd
7	PROWL H20	3.8	AS	32.0	oz/a	PRE	A	99.0 a	95.8 a	94.5 b	78.3 b	98.0 a	86.0 e
8	DUAL II MAGNUM	7.64	EC	16.0	oz/a	PRE	A	99.0 a	74.3 b	99.0 a	85.8 ab	99.0 a	98.0 ab
9	ZIDUA	4.17	SC	2.45	oz/a	PRE	A	99.0 a	99.0 a	99.0 a	99.0 a	99.0 a	99.0 a
10	WARRANT	3	ME	48.0	oz/a	PRE	A	99.0 a	93.3 a	99.0 a	87.0 ab	95.5 a	98.0 ab
11	ATRAZINE	4	L	32.0	oz/a	PRE	A	99.0 a	99.0 a	99.0 a	99.0 a	83.5 b	91.0 d
12	NTC							0.0 b	0.0 c	0.0 c	0.0 c	0.0 c	0.0 f
	LSD P=.10							.	16.93	2.23	15.21	6.27	4.83
	Standard Deviation							0.00	14.15	1.86	12.71	5.24	4.03
	CV							0.0	17.86	2.27	16.6	6.58	5.13
	Grand Mean							82.50	79.23	81.79	76.58	79.56	78.69
	Bartlett's X2							0.00	43.033	4.352	17.065	18.746	15.206
	P(Bartlett's X2)							.	0.001*	0.226	0.009*	0.009*	0.033*

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 1 because error mean square = 0.

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Trial ID: CN-02-19 Study Dir.:
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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	RAPRA ----- Control Percent May-10-19 30 DA-A	AGRASS ----- Control Percent May-10-19 30 DA-A	AMAPA ----- Control Percent May-16-19 36 DA-A	RAPRA ----- Control Percent May-16-19 36 DA-A	AGRASS ----- Control Percent May-16-19 36 DA-A	AMAPA ----- Control Percent May-30-19 50 DA-A
	Weed Code												
	Crop Code												
	Rating Data Type												
	Rating Unit												
	Rating Date												
	Trt-Eval Interval												
								7	8	9	10	11	12
1	NTC							0.0 c	0.0 c	0.0 d	0.0 c	0.0 d	0.0 e
2	CALLISTO	4	SC	3.0	oz/a	PRE	A	90.5 ab	60.0 b	85.0 c	95.5 a	70.0 c	91.3 bc
3	IMPACT	2.8	L	1.0	oz/a	PRE	A	90.5 ab	86.3 a	93.8 ab	93.0 ab	92.3 ab	90.0 c
4	IMPACT Z	4.26	L	8.0	oz/a	PRE	A	98.0 a	92.5 a	98.0 ab	97.0 a	92.3 ab	97.0 ab
5	IMPACT Z	4.26	L	10.7	oz/a	PRE	A	94.5 ab	93.3 a	99.0 a	96.8 a	93.5 ab	97.0 ab
6	LAUDIS	3.5	SL	3.0	oz/a	PRE	A	95.5 ab	94.8 a	93.5 b	96.8 a	95.8 ab	87.5 c
7	PROWL H20	3.8	AS	32.0	oz/a	PRE	A	84.5 ab	98.0 a	83.8 c	91.0 ab	96.0 ab	75.0 d
8	DUAL II MAGNUM	7.64	EC	16.0	oz/a	PRE	A	86.8 ab	99.0 a	98.0 ab	86.8 ab	99.0 a	99.0 a
9	ZIDUA	4.17	SC	2.45	oz/a	PRE	A	98.0 a	99.0 a	99.0 a	99.0 a	99.0 a	98.0 a
10	WARRANT	3	ME	48.0	oz/a	PRE	A	83.3 b	91.0 a	97.0 ab	82.0 b	88.8 b	98.0 a
11	ATRAZINE	4	L	32.0	oz/a	PRE	A	98.0 a	63.8 b	93.3 b	98.0 a	67.5 c	86.3 c
12	NTC							0.0 c	0.0 c	0.0 d	0.0 c	0.0 d	0.0 e
	LSD P=.10							14.17	16.95	5.32	13.38	9.15	6.57
	Standard Deviation							11.84	14.16	4.45	11.18	7.64	5.49
	CV							15.46	19.37	5.68	14.33	10.26	7.17
	Grand Mean							76.63	73.13	78.35	77.98	74.50	76.58
	Bartlett's X2							32.999	32.911	16.145	33.272	15.854	22.816
	P(Bartlett's X2)							0.001*	0.001*	0.024*	0.001*	0.026*	0.004*

Means followed by same letter or symbol do not significantly differ (P=.10, LSD).
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Could not calculate LSD (% mean diff) for columns 1 because error mean square = 0.

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	RAPRA Control Percent May-30-19 50 DA-A	AGRASS Control Percent May-30-19 50 DA-A
								13	14
1	NTC							0.0 c	0.0 e
2	CALLISTO	4	SC	3.0	oz/a	PRE	A	89.5 ab	63.8 c
3	IMPACT	2.8	L	1.0	oz/a	PRE	A	90.5 ab	83.5 ab
4	IMPACT Z	4.26	L	8.0	oz/a	PRE	A	97.0 a	88.5 ab
5	IMPACT Z	4.26	L	10.7	oz/a	PRE	A	93.0 ab	88.5 ab
6	LAUDIS	3.5	SL	3.0	oz/a	PRE	A	95.5 a	85.0 ab
7	PROWL H20	3.8	AS	32.0	oz/a	PRE	A	92.0 ab	95.0 ab
8	DUAL II MAGNUM	7.64	EC	16.0	oz/a	PRE	A	80.8 b	97.0 a
9	ZIDUA	4.17	SC	2.45	oz/a	PRE	A	96.8 a	97.0 a
10	WARRANT	3	ME	48.0	oz/a	PRE	A	87.0 ab	81.0 b
11	ATRAZINE	4	L	32.0	oz/a	PRE	A	98.0 a	35.0 d
12	NTC							0.0 c	0.0 e
LSD P=.10								14.01	15.93
Standard Deviation								11.71	13.31
CV								15.27	19.62
Grand Mean								76.67	67.85
Bartlett's X2								30.785	18.977
P(Bartlett's X2)								0.001*	0.015*

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 1 because error mean square = 0.

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Randomized Complete Block (RCB) AOV For AMAPA ----- Control Percent Apr-23-19 13 DA-A (Data Column 1)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	65340.000000			
Replicate	3	0.000000	0.000000	0.000	1.0000
Treatment	11	65340.000000	5940.000000	0.000	1.0000
Error	33	0.000000	0.000000		

Randomized Complete Block (RCB) AOV For RAPRA ----- Control Percent Apr-23-19 13 DA-A (Data Column 2)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	70048.479167			
Replicate	3	1114.229167	371.409722	1.855	0.1565
Treatment	11	62327.229167	5666.111742	28.300	0.0001
Error	33	6607.020833	200.212753		

Randomized Complete Block (RCB) AOV For AMAPA ----- Control Percent May-2-19 22 DA-A (Data Column 3)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	64419.916667			
Replicate	3	6.750000	2.250000	0.650	0.5887
Treatment	11	64298.916667	5845.356061	1688.374	0.0001
Error	33	114.250000	3.462121		

Randomized Complete Block (RCB) AOV For RAPRA ----- Control Percent May-2-19 22 DA-A (Data Column 4)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	65283.666667			
Replicate	3	1725.500000	575.166667	3.558	0.0246
Treatment	11	58223.666667	5293.060606	32.744	0.0001
Error	33	5334.500000	161.651515		

Randomized Complete Block (RCB) AOV For AGRASS ----- Control Percent May-2-19 22 DA-A (Data Column 5)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	62601.812500			
Replicate	3	139.562500	46.520833	1.696	0.1869
Treatment	11	61557.062500	5596.096591	204.014	0.0001
Error	33	905.187500	27.429924		

Randomized Complete Block (RCB) AOV For AMAPA ----- Control Percent May-10-19 30 DA-A (Data Column 6)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	60740.312500			
Replicate	3	40.562500	13.520833	0.831	0.4866
Treatment	11	60162.562500	5469.323864	335.986	0.0001
Error	33	537.187500	16.278409		

Randomized Complete Block (RCB) AOV For RAPRA ----- Control Percent May-10-19 30 DA-A (Data Column 7)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	63875.250000			
Replicate	3	1715.083333	571.694444	4.075	0.0144
Treatment	11	57530.750000	5230.068182	37.282	0.0001
Error	33	4629.416667	140.285354		

Randomized Complete Block (RCB) AOV For AGRASS ----- Control Percent May-10-19 30 DA-A (Data Column 8)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	65321.250000			
Replicate	3	93.750000	31.250000	0.156	0.9252
Treatment	11	58609.250000	5328.113636	26.567	0.0001
Error	33	6618.250000	200.553030		

Randomized Complete Block (RCB) AOV For AMAPA ----- Control Percent May-16-19 36 DA-A (Data Column 9)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	60778.979167			
Replicate	3	76.229167	25.409722	1.284	0.2960
Treatment	11	60049.729167	5459.066288	275.871	0.0001
Error	33	653.020833	19.788510		

Randomized Complete Block (RCB) AOV For RAPRA ----- Control Percent May-16-19 36 DA-A (Data Column 10)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	64600.979167			
Replicate	3	1014.562500	338.187500	2.707	0.0611
Treatment	11	59463.729167	5405.793561	43.271	0.0001
Error	33	4122.687500	124.929924		

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Randomized Complete Block (RCB) AOV For AGRASS ----- Control Percent May-16-19 36 DA-A (Data Column 11)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	59902.000000			
Replicate	3	61.166667	20.388889	0.349	0.7901
Treatment	11	57913.000000	5264.818182	90.121	0.0001
Error	33	1927.833333	58.419192		

Randomized Complete Block (RCB) AOV For AMAPA ----- Control Percent May-30-19 50 DA-A (Data Column 12)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	59443.666667			
Replicate	3	73.166667	24.388889	0.809	0.4982
Treatment	11	58375.166667	5306.833333	175.947	0.0001
Error	33	995.333333	30.161616		

Randomized Complete Block (RCB) AOV For RAPRA ------ Control Percent May-30-19 50 DA-A (Data Column 13)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	64216.666667			
Replicate	3	2238.166667	746.055556	5.442	0.0037
Treatment	11	57454.166667	5223.106061	38.097	0.0001
Error	33	4524.333333	137.101010		

Randomized Complete Block (RCB) AOV For AGRASS ----- Control Percent May-30-19 50 DA-A (Data Column 14)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	63481.979167			
Replicate	3	416.062500	138.687500	0.783	0.5122
Treatment	11	57218.229167	5201.657197	29.354	0.0001
Error	33	5847.687500	177.202652		

Weed Code
AMAPA = AMARANTH, PALMER / AMARANTHUS PALMERI S.WATS.
RAPRA = RADISH, WILD / RAPHANUS RAPHANISTRUM L.

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BARE-GROUND/NON-CROP
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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5	6
	Weed Code								AMAPA	RAPRA	AMAPA	RAPRA	AGRASS	AMAPA
	Crop Code								-----	-----	-----	-----	-----	-----
	Rating Data Type								Control	Control	Control	Control	Control	Control
	Rating Unit								Percent	Percent	Percent	Percent	Percent	Percent
	Rating Date								Apr-23-19	Apr-23-19	May-2-19	May-2-19	May-2-19	May-10-19
	Trt-Eval Interval								13 DA-A	13 DA-A	22 DA-A	22 DA-A	22 DA-A	30 DA-A
1	NTC							101	0.0	0.0	0.0	0.0	0.0	0.0
								210	0.0	0.0	0.0	0.0	0.0	0.0
								312	0.0	0.0	0.0	0.0	0.0	0.0
								405	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	CALLISTO	4	SC	3.0	oz/a	PRE	A	102	99.0	95.0	99.0	50.0	95.0	95.0
								206	99.0	99.0	99.0	99.0	99.0	95.0
								303	99.0	99.0	99.0	99.0	95.0	85.0
								401	99.0	99.0	99.0	99.0	85.0	85.0
								Mean =	99.0	98.0	99.0	86.8	93.5	90.0
3	IMPACT	2.8	L	1.0	oz/a	PRE	A	103	99.0	85.0	99.0	65.0	99.0	95.0
								212	99.0	99.0	95.0	99.0	85.0	90.0
								311	99.0	99.0	99.0	99.0	95.0	95.0
								412	99.0	99.0	99.0	99.0	95.0	90.0
								Mean =	99.0	95.5	98.0	90.5	93.5	92.5
4	IMPACT Z	4.26	L	8.0	oz/a	PRE	A	104	99.0	99.0	99.0	99.0	99.0	95.0
								201	99.0	99.0	99.0	99.0	99.0	95.0
								304	99.0	99.0	99.0	99.0	90.0	99.0
								407	99.0	99.0	99.0	99.0	99.0	99.0
								Mean =	99.0	99.0	99.0	99.0	96.8	97.0
5	IMPACT Z	4.26	L	10.7	oz/a	PRE	A	105	99.0	99.0	95.0	90.0	99.0	99.0
								203	99.0	99.0	99.0	99.0	99.0	99.0
								305	99.0	99.0	99.0	99.0	99.0	99.0
								406	99.0	99.0	99.0	95.0	95.0	99.0
								Mean =	99.0	99.0	98.0	95.8	98.0	99.0
6	LAUDIS	3.5	SL	3.0	oz/a	PRE	A	106	99.0	95.0	99.0	95.0	99.0	90.0
								208	99.0	99.0	99.0	99.0	99.0	95.0
								309	99.0	99.0	95.0	99.0	99.0	95.0
								410	99.0	99.0	95.0	99.0	95.0	95.0
								Mean =	99.0	98.0	97.0	98.0	98.0	93.8
7	PROWL H20	3.8	AS	32.0	oz/a	PRE	A	107	99.0	90.0	90.0	65.0	99.0	85.0
								211	99.0	99.0	99.0	99.0	99.0	85.0
								306	99.0	95.0	99.0	50.0	99.0	99.0
								404	99.0	99.0	90.0	99.0	95.0	75.0
								Mean =	99.0	95.8	94.5	78.3	98.0	86.0
8	DUAL II MAGNUM	7.64	EC	16.0	oz/a	PRE	A	108	99.0	0.0	99.0	50.0	99.0	99.0
								209	99.0	99.0	99.0	99.0	99.0	99.0
								307	99.0	99.0	99.0	99.0	99.0	95.0
								408	99.0	99.0	99.0	95.0	99.0	99.0
								Mean =	99.0	74.3	99.0	85.8	99.0	98.0
9	ZIDUA	4.17	SC	2.45	oz/a	PRE	A	109	99.0	99.0	99.0	99.0	99.0	99.0
								207	99.0	99.0	99.0	99.0	99.0	99.0
								301	99.0	99.0	99.0	99.0	99.0	99.0
								403	99.0	99.0	99.0	99.0	99.0	99.0
								Mean =	99.0	99.0	99.0	99.0	99.0	99.0
10	WARRANT	3	ME	48.0	oz/a	PRE	A	110	99.0	90.0	99.0	85.0	99.0	95.0
								202	99.0	85.0	99.0	65.0	99.0	99.0
								308	99.0	99.0	99.0	99.0	99.0	99.0
								411	99.0	99.0	99.0	99.0	85.0	99.0
								Mean =	99.0	93.3	99.0	87.0	95.5	98.0
11	ATRAZINE	4	L	32.0	oz/a	PRE	A	111	99.0	99.0	99.0	99.0	99.0	85.0
								204	99.0	99.0	99.0	99.0	65.0	99.0
								302	99.0	99.0	99.0	99.0	85.0	90.0
								409	99.0	99.0	99.0	99.0	85.0	90.0
								Mean =	99.0	99.0	99.0	99.0	83.5	91.0

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RESIDUAL WEED CONTROL WITH FIELD CORN HPPD HERBICIDES
BARE-GROUND/NON-CROP
Trial ID: CN-02-19 Study Dir.:
Location: PONDER FARM Investigator: Eric P. Prostko

Weed Code							AMAPA	RAPRA	AMAPA	RAPRA	AGRASS	AMAPA
Crop Code							-----	-----	-----	-----	-----	-----
Rating Data Type							Control	Control	Control	Control	Control	Control
Rating Unit							Percent	Percent	Percent	Percent	Percent	Percent
Rating Date							Apr-23-19	Apr-23-19	May-2-19	May-2-19	May-2-19	May-10-19
Trt-Eval Interval							13 DA-A	13 DA-A	22 DA-A	22 DA-A	22 DA-A	30 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5	6
12	NTC							112	0.0	0.0	0.0	0.0	0.0	0.0
								205	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
								402	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

University of Georgia

RESIDUAL WEED CONTROL WITH FIELD CORN HPPD HERBICIDES
BARE-GROUND/NON-CROP
Trial ID: CN-02-19 Study Dir.:
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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	RAPRA Control Percent May-10-19 30 DA-A	AGRASS Control Percent May-10-19 30 DA-A	AMAPA Control Percent May-16-19 36 DA-A	RAPRA Control Percent May-16-19 36 DA-A	AGRASS Control Percent May-16-19 36 DA-A
									7	8	9	10	11
1	NTC							101	0.0	0.0	0.0	0.0	0.0
								210	0.0	0.0	0.0	0.0	0.0
								312	0.0	0.0	0.0	0.0	0.0
								405	0.0	0.0	0.0	0.0	0.0
								Mean =	0.0	0.0	0.0	0.0	0.0
2	CALLISTO	4	SC	3.0	oz/a	PRE	A	102	65.0	0.0	90.0	85.0	50.0
								206	99.0	95.0	95.0	99.0	95.0
								303	99.0	75.0	85.0	99.0	70.0
								401	99.0	70.0	70.0	99.0	65.0
								Mean =	90.5	60.0	85.0	95.5	70.0
3	IMPACT	2.8	L	1.0	oz/a	PRE	A	103	65.0	95.0	95.0	75.0	99.0
								212	99.0	65.0	90.0	99.0	80.0
								311	99.0	95.0	95.0	99.0	95.0
								412	99.0	90.0	95.0	99.0	95.0
								Mean =	90.5	86.3	93.8	93.0	92.3
4	IMPACT Z	4.26	L	8.0	oz/a	PRE	A	104	95.0	95.0	99.0	95.0	95.0
								201	99.0	95.0	99.0	95.0	90.0
								304	99.0	85.0	95.0	99.0	85.0
								407	99.0	95.0	99.0	99.0	99.0
								Mean =	98.0	92.5	98.0	97.0	92.3
5	IMPACT Z	4.26	L	10.7	oz/a	PRE	A	105	85.0	99.0	99.0	90.0	99.0
								203	99.0	99.0	99.0	99.0	95.0
								305	99.0	85.0	99.0	99.0	90.0
								406	95.0	90.0	99.0	99.0	90.0
								Mean =	94.5	93.3	99.0	96.8	93.5
6	LAUDIS	3.5	SL	3.0	oz/a	PRE	A	106	85.0	99.0	90.0	90.0	99.0
								208	99.0	95.0	95.0	99.0	95.0
								309	99.0	95.0	90.0	99.0	99.0
								410	99.0	90.0	99.0	99.0	90.0
								Mean =	95.5	94.8	93.5	96.8	95.8
7	PROWL H20	3.8	AS	32.0	oz/a	PRE	A	107	75.0	99.0	85.0	80.0	99.0
								211	99.0	99.0	90.0	99.0	95.0
								306	65.0	95.0	85.0	90.0	95.0
								404	99.0	99.0	75.0	95.0	95.0
								Mean =	84.5	98.0	83.8	91.0	96.0
8	DUAL II MAGNUM	7.64	EC	16.0	oz/a	PRE	A	108	50.0	99.0	99.0	50.0	99.0
								209	99.0	99.0	99.0	99.0	99.0
								307	99.0	99.0	95.0	99.0	99.0
								408	99.0	99.0	99.0	99.0	99.0
								Mean =	86.8	99.0	98.0	86.8	99.0
9	ZIDUA	4.17	SC	2.45	oz/a	PRE	A	109	95.0	99.0	99.0	99.0	99.0
								207	99.0	99.0	99.0	99.0	99.0
								301	99.0	99.0	99.0	99.0	99.0
								403	99.0	99.0	99.0	99.0	99.0
								Mean =	98.0	99.0	99.0	99.0	99.0
10	WARRANT	3	ME	48.0	oz/a	PRE	A	110	85.0	99.0	95.0	90.0	95.0
								202	50.0	95.0	99.0	40.0	85.0
								308	99.0	95.0	95.0	99.0	95.0
								411	99.0	75.0	99.0	99.0	80.0
								Mean =	83.3	91.0	97.0	82.0	88.8
11	ATRAZINE	4	L	32.0	oz/a	PRE	A	111	99.0	65.0	90.0	95.0	80.0
								204	95.0	50.0	99.0	99.0	55.0
								302	99.0	65.0	85.0	99.0	70.0
								409	99.0	75.0	99.0	99.0	65.0
								Mean =	98.0	63.8	93.3	98.0	67.5

University of Georgia

RESIDUAL WEED CONTROL WITH FIELD CORN HPPD HERBICIDES
BARE-GROUND/NON-CROP
Trial ID: CN-02-19 Study Dir.:
Location: PONDER FARM Investigator: Eric P. Prostko

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	RAPRA ----- Control Percent May-10-19 30 DA-A 7	AGRASS ----- Control Percent May-10-19 30 DA-A 8	AMAPA ----- Control Percent May-16-19 36 DA-A 9	RAPRA ----- Control Percent May-16-19 36 DA-A 10	AGRASS ----- Control Percent May-16-19 36 DA-A 11
12	NTC							112	0.0	0.0	0.0	0.0	0.0
								205	0.0	0.0	0.0	0.0	0.0
								310	0.0	0.0	0.0	0.0	0.0
								402	0.0	0.0	0.0	0.0	0.0
								Mean =	0.0	0.0	0.0	0.0	0.0

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RESIDUAL WEED CONTROL WITH FIELD CORN HPPD HERBICIDES
BARE-GROUND/NON-CROP
Trial ID: CN-02-19 Study Dir.:
Location: PONDER FARM Investigator: Eric P. Prostko

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	AMAPA Control Percent May-30-19 50 DA-A	RAPRA Control Percent May-30-19 50 DA-A	AGRASS Control Percent May-30-19 50 DA-A
									12	13	14
1	NTC							101	0.0	0.0	0.0
								210	0.0	0.0	0.0
								312	0.0	0.0	0.0
								405	0.0	0.0	0.0
								Mean =	0.0	0.0	0.0
2	CALLISTO	4	SC	3.0	oz/a	PRE	A	102	85.0	65.0	50.0
								206	90.0	99.0	90.0
								303	95.0	95.0	65.0
								401	95.0	99.0	50.0
								Mean =	91.3	89.5	63.8
3	IMPACT	2.8	L	1.0	oz/a	PRE	A	103	85.0	65.0	99.0
								212	90.0	99.0	65.0
								311	90.0	99.0	95.0
								412	95.0	99.0	75.0
								Mean =	90.0	90.5	83.5
4	IMPACT Z	4.26	L	8.0	oz/a	PRE	A	104	95.0	95.0	99.0
								201	95.0	95.0	95.0
								304	99.0	99.0	65.0
								407	99.0	99.0	95.0
								Mean =	97.0	97.0	88.5
5	IMPACT Z	4.26	L	10.7	oz/a	PRE	A	105	95.0	75.0	99.0
								203	99.0	99.0	85.0
								305	95.0	99.0	75.0
								406	99.0	99.0	95.0
								Mean =	97.0	93.0	88.5
6	LAUDIS	3.5	SL	3.0	oz/a	PRE	A	106	95.0	85.0	95.0
								208	85.0	99.0	65.0
								309	85.0	99.0	90.0
								410	85.0	99.0	90.0
								Mean =	87.5	95.5	85.0
7	PROWL H20	3.8	AS	32.0	oz/a	PRE	A	107	75.0	85.0	95.0
								211	65.0	99.0	95.0
								306	95.0	99.0	95.0
								404	65.0	85.0	95.0
								Mean =	75.0	92.0	95.0
8	DUAL II MAGNUM	7.64	EC	16.0	oz/a	PRE	A	108	99.0	30.0	99.0
								209	99.0	99.0	99.0
								307	99.0	99.0	95.0
								408	99.0	95.0	95.0
								Mean =	99.0	80.8	97.0
9	ZIDUA	4.17	SC	2.45	oz/a	PRE	A	109	99.0	99.0	99.0
								207	99.0	99.0	95.0
								301	95.0	90.0	95.0
								403	99.0	99.0	99.0
								Mean =	98.0	96.8	97.0
10	WARRANT	3	ME	48.0	oz/a	PRE	A	110	99.0	85.0	85.0
								202	95.0	65.0	99.0
								308	99.0	99.0	75.0
								411	99.0	99.0	65.0
								Mean =	98.0	87.0	81.0
11	ATRAZINE	4	L	32.0	oz/a	PRE	A	111	75.0	95.0	50.0
								204	90.0	99.0	0.0
								302	85.0	99.0	30.0
								409	95.0	99.0	60.0
								Mean =	86.3	98.0	35.0

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RESIDUAL WEED CONTROL WITH FIELD CORN HPPD HERBICIDES
BARE-GROUND/NON-CROP
Trial ID: CN-02-19 Study Dir.:
Location: PONDER FARM Investigator: Eric P. Prostko

Weed Code								AMAPA	RAPRA	AGRASS
Crop Code								-----	-------	-----
Rating Data Type								Control	Control	Control
Rating Unit								Percent	Percent	Percent
Rating Date								May-30-19	May-30-19	May-30-19
Trt-Eval Interval								50 DA-A	50 DA-A	50 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	12	13	14
12	NTC							112	0.0	0.0	0.0
								205	0.0	0.0	0.0
								310	0.0	0.0	0.0
								402	0.0	0.0	0.0
								Mean =	0.0	0.0	0.0

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RESIDUAL WEED CONTROL WITH FIELD CORN HPPD HERBICIDES
BARE-GROUND/NON-CROP

Trial ID:	CN-02-19	Study Dir.:	
Location:	PONDER FARM	Investigator:	Eric P. Prostko

Weed Code
AMAPA = AMARANTH, PALMER / AMARANTHUS PALMERI S.WATS.
RAPRA = RADISH, WILD / RAPHANUS RAPHANISTRUM L.