

University of Georgia

Pepper and weed response to Paladin Pic alone or in a system with Devrinol and/or Dual Magnum

Trial ID: Veg5-11

Study Dir.: Stanley Culpepper

Location: Ponder Farm

Investigator: Stanley Culpepper

Use 1 liters(s) per treatment mixture to spray 14.8 gal/ac

Plots: 6 by 30 feet

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. 1	By Rep 2	3	4
1	no fumigant or herbicide No post								101	220	313	401
2	no fumigant or herbicide Dual Magnum	7.64	L	12	oz/a	POST	B	6.334 ml/mx	102	219	314	402
3	Paladin+Pic 79:21: 40GPA No post								103	212	319	409
4	Paladin+Pic 79:21: 40GPA Dual Magnum	7.64	L	12	oz/a	POST	B	6.334 ml/mx	104	211	320	410
5	Paladin+Pic 79:21: 50GPA No post								105	204	301	405
6	Paladin+Pic 79:21: 50GPA Dual Magnum	7.64	L	12	oz/a	POST	B	6.334 ml/mx	106	203	302	406
7	Paladin+Pic 79:21: 60GPA No post								107	214	317	407
8	Paladin+Pic 79:21: 60GPA Dual Magnum	7.64	L	12	oz/a	POST	B	6.334 ml/mx	108	213	318	408
9	Paladin+Pic 79:21: 40GPA Devrinol No post	50	DF	1	lb ai/a	under mu	A	16.19 g/mx	109	210	305	403
10	Paladin+Pic 79:21: 40GPA Devrinol Dual Magnum	50 7.64	DF L	1 12	lb ai/a oz/a	under mu POST	A B	16.19 g/mx 6.334 ml/mx	110	209	306	404
11	Paladin+Pic 79:21: 50GPA Devrinol No post	50	DF	1	lb ai/a	under mu	A	16.19 g/mx	111	202	315	411
12	Paladin+Pic 79:21: 50GPA Devrinol Dual Magnum	50 7.64	DF L	1 12	lb ai/a oz/a	under mu POST	A B	16.19 g/mx 6.334 ml/mx	112	201	316	412
13	Paladin+Pic 79:21: 60GPA Devrinol No post	50	DF	1	lb ai/a	under mu	A	16.19 g/mx	113	218	307	413
14	Paladin+Pic 79:21: 60GPA Devrinol Dual Magnum	50 7.64	DF L	1 12	lb ai/a oz/a	under mu POST	A B	16.19 g/mx 6.334 ml/mx	114	217	308	414
15	Paladin+Pic 79:21: 40GPA Devrinol No post	50	DF	2	lb ai/a	under mu	A	32.39 g/mx	115	208	311	415
16	Paladin+Pic 79:21: 40GPA Devrinol Dual Magnum	50 7.64	DF L	2 12	lb ai/a oz/a	under mu POST	A B	32.39 g/mx 6.334 ml/mx	116	207	312	416
17	Paladin+Pic 79:21: 50GPA Devrinol No post	50	DF	2	lb ai/a	under mu	A	32.39 g/mx	117	206	309	417
18	Paladin+Pic 79:21: 50GPA Devrinol Dual Magnum	50 7.64	DF L	2 12	lb ai/a oz/a	under mu POST	A B	32.39 g/mx 6.334 ml/mx	118	205	310	418

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Use 1 liters(s) per treatment mixture to spray 14.8 gal/ac

Plots: 6 by 30 feet

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt to Measure	Product	Plot No. 1	By Rep 2	3	4
19	Paladin+Pic 79:21: 60GPA Devrinol No post	50	DF	2	lb ai/a	under mu	A	32.39 g/mx		119	216	303	419
20	Paladin+Pic 79:21: 60GPA Devrinol Dual Magnum	50 7.64	DF L	2 12	lb ai/a oz/a	under mu POST	A B	32.39 g/mx 6.334 ml/mx		120	215	304	420

Sort Order: Treatment

Trial Comments

OBJECTIVE: Determine the most effective Paladin Pic system for South Georgia.

CROP RESPONSE:

1. Injury was insignificant and 5% or less throughout the experiment.

NUTSEDGE CONTROL:

1. At 1 month after applications, control was excellent with all systems including Paladin Pic.
2. Control began to break with lower rates of Paladin Pic between 6 and 8 wk after fumigation.
3. By April 12, Paladin Pic treatments at 40 G provided 80 to 88% control while rates of 50 and 60 G provided at least 94% control. No herbicide program improved control.
4. Just prior to harvest, Paladin Pic at 40 G provided only 60% control. The addition of Dual POST improved control 16%, the addition of Devrinol at 1 lb did not improve control, the addition of Devrinol at 2 lb improved control 12%, the addition of Devrinol and Dual improved control 26 to 38%. Control was at least 88% with all systems including Paladin Pic at 50 or 60 G.

PALMER AMARANTH CONTROL:

1. Paladin Pic at 40 G provided no control by harvest time. The addition of Dual improved control by 84%, Devrinol at 1 lb 25%, Devrinol at 2 lb 59%, Devrinol + Dual 84 to 88%.
2. Paladin Pic at 50 G provided 60% control at harvest. The addition of Dual improved control to 93%, Devrinol at 1 lb improved control to 71%, Devrinol at 2 lb improved control to 75%, Devrinol + Dual improved control to at least 95%.
3. Paladin Pic at 60 G provided 82% control at harvest. The addition of Dual improved control to 99%, Devrinol at 1 lb improved control to 85%, Devrinol at 2 lb improved control to 90%, Devrinol + Dual improved control to at least 98%.

LARGE CRABGRASS CONTROL:

1. Paladin Pic at 40 G provided 57% control at harvest. The addition of Dual improved control to 99%, Devrinol at 1 lb improved control to 84%, Devrinol at 2 lb improved control to 92%, Devrinol + Dual improved control to at least 95%.
2. Paladin Pic at 50 G provided 60% control at harvest. The addition of Dual improved control to 99%, Devrinol at 1 lb improved control to 84%, Devrinol at 2 lb improved control to 93%, Devrinol + Dual improved control to at least 95%.
3. Paladin Pic at 60 G provided at least 95% control.

WEED COUNTS:

1. The number of plants for each plot were counted.
2. Trends in control were similar to that noted with visual control with more variability as usual.

PEPPER RESPONSE:

1. Treatments did not influence stand counts.
2. Twenty plants per plot were measured three times for height during the season. During early season, no differences were noted. By late-season, there were clear trends for plots with less Palmer control to be taller as the pepper plants attempted to compete for sunlight.
3. Pepper were harvested 3 times by a local growers crew. Yield was HIGHLY correlated with pigweed control. Greatest yields were noted in systems that included both Devrinol and Dual with Paladin Pic of 50 or 60 GPA.
4. Dual was more important than Devrinol for influencing yield.

GENERAL COMMENTS:

1. Paladin Pic applied with 3 knives on 32 inch bedtop at a depth of 8 inches.
2. Devrinol applied immediately following fumigating and just prior to laying mulch.
3. Dual applied broadcast overtop of pepper.

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Trial ID: Veg5-11

Study Dir.: Stanley Culpepper

Location: Ponder Farm

Investigator: Stanley Culpepper

Weed Code

Crop Code

Rating Data Type

Rating Unit

Rating Date

Crop Stage

Crop Stage Scale

Assessed By

ARM Action Codes

CYPES

CYPES

CPSAN

CPSAN

CPSAN

CPSAN

CPSAN

CONTROL

CONTROL

%

%

%

%

%

%

%

3/28/2011

4/6/2011

4/12/2011

4/27/2011

5/9/2011

3/18/2011

3/28/2011

JS

Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7	8	
1	no fumigant or herbicide No post			0.0	a 0.0	a 0.0	a 0.0	a 0.0	a	0.0	d 0.0	e
2	no fumigant or herbicide Dual Magnum	12	oz/a	2.5	a 1.3	a 0.0	a 0.0	a 0.0	a	0.0	d 0.0	e
3	Paladin+Pic 79:21: 40GPA No post			1.3	a 1.3	a 0.0	a 0.0	a 0.0	a	96.3	bc 91.3	d
4	Paladin+Pic 79:21: 40GPA Dual Magnum	12	oz/a	0.0	a 3.0	a 0.0	a 0.0	a 0.0	a	96.3	bc 91.5	d
5	Paladin+Pic 79:21: 50GPA No post			0.0	a 0.0	a 0.0	a 0.0	a 0.0	a	99.0	a 98.8	a
6	Paladin+Pic 79:21: 50GPA Dual Magnum	12	oz/a	0.0	a 2.3	a 0.0	a 0.0	a 0.0	a	99.0	a 99.0	a
7	Paladin+Pic 79:21: 60GPA No post			0.0	a 2.3	a 2.0	a 0.0	a 0.0	a	99.0	a 98.0	a
8	Paladin+Pic 79:21: 60GPA Dual Magnum	12	oz/a	1.3	a 1.0	a 0.0	a 0.0	a 0.0	a	99.0	a 97.8	ab
9	Paladin+Pic 79:21: 40GPA Devrinol	1	lb ai/a	0.0	a 1.8	a 0.0	a 0.0	a 0.0	a	95.8	c 92.5	d
10	Paladin+Pic 79:21: 40GPA Devrinol	1	lb ai/a	0.0	a 0.5	a 0.0	a 0.0	a 0.0	a	95.8	c 97.3	abc
11	Paladin+Pic 79:21: 50GPA Devrinol	1	lb ai/a	2.5	a 2.3	a 0.0	a 0.0	a 0.0	a	98.5	a 98.5	a
12	Paladin+Pic 79:21: 50GPA Devrinol	1	lb ai/a	1.3	a 0.0	a 0.0	a 0.0	a 0.0	a	97.8	ab 97.8	ab
13	Paladin+Pic 79:21: 60GPA Devrinol	1	lb ai/a	2.5	a 1.8	a 0.0	a 0.0	a 0.0	a	99.0	a 97.8	ab
14	Paladin+Pic 79:21: 60GPA Devrinol	1	lb ai/a	0.0	a 0.5	a 0.0	a 0.0	a 0.0	a	99.0	a 98.8	a
15	Paladin+Pic 79:21: 40GPA Devrinol	2	lb ai/a	1.3	a 1.0	a 0.0	a 0.0	a 0.0	a	98.8	a 94.0	bcd
16	Paladin+Pic 79:21: 40GPA Devrinol	2	lb ai/a	2.5	a 0.5	a 0.0	a 0.0	a 0.0	a	98.8	a 93.8	cd
17	Paladin+Pic 79:21: 50GPA Devrinol	2	lb ai/a	0.0	a 3.0	a 0.0	a 0.0	a 0.0	a	98.8	a 97.3	abc
18	Paladin+Pic 79:21: 50GPA Devrinol	2	lb ai/a	0.0	a 2.5	a 0.0	a 0.0	a 0.0	a	98.8	a 96.5	abc
19	Paladin+Pic 79:21: 60GPA Devrinol	2	lb ai/a	1.3	a 3.5	a 0.0	a 0.0	a 0.0	a	99.0	a 99.0	a
20	Paladin+Pic 79:21: 60GPA Devrinol	2	lb ai/a	5.0	a 1.3	a 0.0	a 0.0	a 0.0	a	99.0	a 99.0	a
LSD (P=.05)				3.16	2.97	1.26	0.00	0.00	.	1.99	3.91	
Standard Deviation				2.24	2.10	0.89	0.00	0.00	.	1.41	2.77	
CV				210.57	142.57	894.43	0.0	0.0	.	1.6	3.18	
Bartlett's X2				4.927	13.954	0.0	0.0	0.0	.	40.205	35.981	
P(Bartlett's X2)				0.841	0.602	.	.	.	.	0.001*	0.001*	

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Weed Code						CYPES	CYPES
Crop Code	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN		
Rating Data Type	INJURY	INJURY	INJURY	INJURY	INJURY	CONTROL	CONTROL
Rating Unit	%	%	%	%	%	%	%
Rating Date	3/28/2011	4/6/2011	4/12/2011	4/27/2011	5/9/2011	3/18/2011	3/28/2011
Crop Stage							
Crop Stage Scale							
Assessed By					JS		
ARM Action Codes							

Trt	Treatment	Rate	Unit	1	2	3	4	5	6	7	8
No.	Name										
	Replicate F			3.892	1.730	1.000	0.000	0.000		2.067	1.761
	Replicate Prob(F)			0.0134	0.1711	0.3995	1.0000	1.0000		0.1147	0.1649
	Treatment F			1.482	1.035	1.000	0.000	0.000		1838.653	465.063
	Treatment Prob(F)			0.1277	0.4388	0.4750	1.0000	1.0000		0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code	CYPES	CYPES	CYPES	CYPES	AMAPA	AMAPA	AMAPA
Crop Code							
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%	%	%
Rating Date	4/6/2011	4/12/2011	4/27/2011	5/9/2011	3/28/2011	4/6/2011	4/12/2011
Crop Stage							
Crop Stage Scale							
Assessed By				JS			
ARM Action Codes							

Trt No.	Treatment Name	Rate	Rate Unit	9	10	11	12	13	14	15	16
1	no fumigant or herbicide No post			0.0 f	0.0 g	0.0 h	0.0 f		0.0 g	0.0 d	0.0 g
2	no fumigant or herbicide Dual Magnum	12	oz/a	0.0 f	5.0 g	28.8 g	23.8 e		0.0 g	65.0 c	71.3 d
3	Paladin+Pic 79:21: 40GPA No post			87.8 e	80.0 f	70.0 f	60.0 d		75.0 e	68.8 c	57.5 e
4	Paladin+Pic 79:21: 40GPA Dual Magnum	12	oz/a	90.8 cde	81.0 ef	83.8 e	76.3 c		75.0 e	92.0 a	96.8 a
5	Paladin+Pic 79:21: 50GPA No post			95.8 ab	95.8 a	91.8 abc	87.5 b		94.0 a-d	95.5 a	87.3 bc
6	Paladin+Pic 79:21: 50GPA Dual Magnum	12	oz/a	96.8 ab	95.8 a	96.3 a	95.0 a		89.8 cd	96.8 a	96.3 ab
7	Paladin+Pic 79:21: 60GPA No post			96.0 ab	95.3 a	90.8 bc	93.8 ab		99.0 a	96.8 a	93.0 abc
8	Paladin+Pic 79:21: 60GPA Dual Magnum	12	oz/a	97.3 ab	96.3 a	94.0 ab	93.8 ab		98.5 ab	99.0 a	98.8 a
9	Paladin+Pic 79:21: 40GPA Devrinol	1	lb ai/a	89.5 de	85.8 def	85.0 de	63.5 d		79.8 e	82.8 b	47.5 f
10	Paladin+Pic 79:21: 40GPA Devrinol	1	lb ai/a	92.8 bcd	87.8 cde	90.0 bcd	87.5 b		80.0 e	93.8 a	93.0 abc
11	Paladin+Pic 79:21: 50GPA Devrinol	1	lb ai/a	96.3 ab	95.5 a	91.5 abc	90.5 ab		90.8 bcd	94.3 a	92.8 abc
12	Paladin+Pic 79:21: 50GPA Devrinol	1	lb ai/a	96.3 ab	94.0 abc	93.0 ab	92.8 ab		96.5 abc	98.5 a	98.3 a
13	Paladin+Pic 79:21: 60GPA Devrinol	1	lb ai/a	94.8 abc	95.0 ab	91.3 abc	92.5 ab		96.8 abc	99.0 a	93.8 abc
14	Paladin+Pic 79:21: 60GPA Devrinol	1	lb ai/a	98.3 a	97.8 a	94.0 ab	94.3 ab		99.0 a	99.0 a	98.8 a
15	Paladin+Pic 79:21: 40GPA Devrinol	2	lb ai/a	88.3 de	86.8 def	86.8 cde	72.3 c		65.0 f	71.0 c	74.5 d
16	Paladin+Pic 79:21: 40GPA Devrinol	2	lb ai/a	90.8 cde	88.3 bcd	86.8 cde	88.8 ab		88.5 d	92.0 a	93.0 abc
17	Paladin+Pic 79:21: 50GPA Devrinol	2	lb ai/a	95.8 ab	95.8 a	90.5 bc	92.5 ab		94.3 a-d	97.3 a	86.0 c
18	Paladin+Pic 79:21: 50GPA Devrinol	2	lb ai/a	94.8 abc	94.0 abc	92.0 abc	96.0 a		98.0 ab	99.0 a	95.8 ab
19	Paladin+Pic 79:21: 60GPA Devrinol	2	lb ai/a	96.8 ab	94.8 ab	91.0 abc	92.5 ab		99.0 a	99.0 a	97.0 a
20	Paladin+Pic 79:21: 60GPA Devrinol	2	lb ai/a	98.8 a	95.0 ab	95.0 ab	94.8 ab		98.8 a	96.8 a	99.0 a
	Dual Magnum	12	oz/a								
LSD (P=.05)				4.82	6.77	5.48	7.48	.	7.99	9.00	9.47
Standard Deviation				3.41	4.79	3.87	5.29	.	5.65	6.37	6.70
CV				4.01	5.77	4.72	6.66	.	6.98	7.33	8.02
Bartlett's X2				26.977	16.821	22.461	42.337	.	43.345	23.301	63.407
P(Bartlett's X2)				0.058	0.535	0.212	0.001*	.	0.001*	0.038*	0.001*

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Weed Code	CYPES	CYPES	CYPES	CYPES	AMAPA	AMAPA	AMAPA
Crop Code							
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%	%	%
Rating Date	4/6/2011	4/12/2011	4/27/2011	5/9/2011	3/28/2011	4/6/2011	4/12/2011
Crop Stage							
Crop Stage Scale							
Assessed By				JS			
ARM Action Codes							

Trt	Treatment	Rate	Unit	9	10	11	12	13	14	15	16
	No.										
	Name										
Replicate F				1.888	2.011	4.642	1.540		11.688	6.741	5.048
Replicate Prob(F)				0.1419	0.1226	0.0057	0.2140		0.0001	0.0006	0.0036
Treatment F				293.972	137.118	157.263	94.173		108.253	52.576	52.829
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001		0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code	AMAPA	AMAPA	DIGSA	DIGSA	DIGSA	DIGSA	DIGSA
Crop Code							
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%	%	%
Rating Date	4/27/2011	5/9/2011	3/28/2011	4/6/2011	4/12/2011	4/27/2011	5/9/2011
Crop Stage							
Crop Stage Scale							
Assessed By	JS						JS
ARM Action Codes							

Trt No.	Treatment Name	Rate	Rate Unit	17	18	19	20	21	22	23	24
1	no fumigant or herbicide No post			0.0 g	0.0 k		0.0	b 0.0	d 0.0	e 0.0	d 0.0 e
2	no fumigant or herbicide Dual Magnum	12	oz/a	73.8 de	42.5 i		0.0	b 90.0	c 93.3	bc 98.0	a 96.8 a
3	Paladin+Pic 79:21: 40GPA No post			7.5 g	0.0 k		99.0	a 98.8	b 84.5	d 59.3	c 57.3 d
4	Paladin+Pic 79:21: 40GPA Dual Magnum	12	oz/a	87.3 c	83.8 def		99.0	a 99.0	a 96.5	abc 99.0	a 99.0 a
5	Paladin+Pic 79:21: 50GPA No post			77.3 d	60.0 h		99.0	a 99.0	a 94.0	abc 88.3	b 59.8 d
6	Paladin+Pic 79:21: 50GPA Dual Magnum	12	oz/a	95.0 abc	92.8 a-d		99.0	a 99.0	a 98.8	a 99.0	a 99.0 a
7	Paladin+Pic 79:21: 60GPA No post			91.0 abc	82.3 ef		99.0	a 99.0	a 98.0	ab 98.3	a 94.5 a
8	Paladin+Pic 79:21: 60GPA Dual Magnum	12	oz/a	98.0 ab	99.0 a		99.0	a 99.0	a 99.0	a 96.8	a 99.0 a
9	Paladin+Pic 79:21: 40GPA Devrinol	1	lb ai/a	40.0 f	25.0 j		99.0	a 99.0	a 91.5	c 87.3	b 84.3 bc
10	Paladin+Pic 79:21: 40GPA Devrinol	1	lb ai/a	88.0 c	84.5 de		99.0	a 99.0	a 98.8	a 99.0	a 99.0 a
11	Paladin+Pic 79:21: 50GPA Devrinol	1	lb ai/a	86.5 c	71.0 g		99.0	a 99.0	a 98.8	a 99.0	a 83.5 c
12	Paladin+Pic 79:21: 50GPA Devrinol	1	lb ai/a	94.8 abc	95.8 abc		99.0	a 99.0	a 98.8	a 99.0	a 99.0 a
13	Paladin+Pic 79:21: 60GPA Devrinol	1	lb ai/a	89.5 bc	84.5 de		99.0	a 99.0	a 98.8	a 99.0	a 99.0 a
14	Paladin+Pic 79:21: 60GPA Devrinol	1	lb ai/a	99.0 a	99.0 a		99.0	a 99.0	a 98.8	a 99.0	a 99.0 a
15	Paladin+Pic 79:21: 40GPA Devrinol	2	lb ai/a	65.0 e	58.5 h		99.0	a 99.0	a 96.3	abc 99.0	a 91.5 ab
16	Paladin+Pic 79:21: 40GPA Devrinol	2	lb ai/a	93.8 abc	88.5 cde		99.0	a 99.0	a 98.3	ab 99.0	a 99.0 a
17	Paladin+Pic 79:21: 50GPA Devrinol	2	lb ai/a	77.5 d	75.0 fg		99.0	a 99.0	a 97.3	ab 99.0	a 93.3 a
18	Paladin+Pic 79:21: 50GPA Devrinol	2	lb ai/a	99.0 a	95.3 abc		99.0	a 99.0	a 99.0	a 99.0	a 99.0 a
19	Paladin+Pic 79:21: 60GPA Devrinol	2	lb ai/a	94.0 abc	89.5 b-e		99.0	a 99.0	a 98.5	ab 99.0	a 96.8 a
20	Paladin+Pic 79:21: 60GPA Devrinol	2	lb ai/a	99.0 a	97.8 ab		99.0	a 99.0	a 99.0	a 99.0	a 99.0 a
LSD (P=.05)				8.77	9.23	.	0.00	0.16	5.28	3.90	7.77
Standard Deviation				6.20	6.53	.	0.00	0.11	3.73	2.76	5.49
CV				7.98	9.17	.	0.0	0.12	4.06	3.04	6.28
Bartlett's X2				16.906	31.268	.	0.0	0.0	87.315	12.09	21.252
P(Bartlett's X2)				0.324	0.008*	.	.	.	0.001*	0.034*	0.007*

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Weed Code	AMAPA	AMAPA	DIGSA	DIGSA	DIGSA	DIGSA	DIGSA
Crop Code							
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%	%	%
Rating Date	4/27/2011	5/9/2011	3/28/2011	4/6/2011	4/12/2011	4/27/2011	5/9/2011
Crop Stage							
Crop Stage Scale							
Assessed By		JS					JS
ARM Action Codes							

Trt	Treatment	Rate	Unit	17	18	19	20	21	22	23	24
No.	Name										
Replicate F		6.843			2.053		0.000	1.000	0.989	1.472	1.670
Replicate Prob(F)		0.0005			0.1166		1.0000	0.3995	0.4044	0.2317	0.1836
Treatment F		87.747			91.665		0.000	156566.906	137.948	284.054	76.529
Treatment Prob(F)		0.0001			0.0001		1.0000	0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code
Crop Code
Rating Data Type
Rating Unit
Rating Date
Crop Stage
Crop Stage Scale
Assessed By
ARM Action Codes

CPSAN
STAND CTS
#/plot
3/28/2011

CYPES
WEED CTS
#/plot
3/18/2011

CYPES
WEED CTS
#/plot
4/1/2011

CYPES
WEED CTS
#/plot
4/7/2011

AMAPA
WEED CTS
#/plot
4/1/2011

Trt No.	Treatment Name	Rate	Unit	25	26	27	28	29	30	31	32			
1	no fumigant or herbicide No post				39.0	a	119.8	a	115.0	b	122.8	a	67.0	a
2	no fumigant or herbicide Dual Magnum	12	oz/a		39.0	a	118.3	a	127.5	a	126.5	a	65.0	a
3	Paladin+Pic 79:21: 40GPA No post				38.5	a	5.0	b	21.3	c	25.5	b	32.5	b
4	Paladin+Pic 79:21: 40GPA Dual Magnum	12	oz/a		39.0	a	3.3	bc	15.5	cd	25.5	b	31.8	b
5	Paladin+Pic 79:21: 50GPA No post				39.0	a	0.0	c	0.3	e	3.3	de	9.3	de
6	Paladin+Pic 79:21: 50GPA Dual Magnum	12	oz/a		38.5	a	0.0	c	1.8	e	2.0	de	9.3	de
7	Paladin+Pic 79:21: 60GPA No post				38.5	a	0.0	c	2.0	e	7.0	de	2.3	ef
8	Paladin+Pic 79:21: 60GPA Dual Magnum	12	oz/a		39.0	a	0.0	c	2.3	e	4.3	de	0.3	f
9	Paladin+Pic 79:21: 40GPA Devrinol	1	lb ai/a		39.0	a	3.0	bc	9.0	de	28.5	b	26.5	b
10	Paladin+Pic 79:21: 40GPA Devrinol	1	lb ai/a		39.0	a	1.5	bc	6.8	de	11.8	cd	19.3	c
	Dual Magnum	12	oz/a											
11	Paladin+Pic 79:21: 50GPA Devrinol	1	lb ai/a		39.0	a	0.0	c	2.0	e	3.8	de	2.3	ef
	No post													
12	Paladin+Pic 79:21: 50GPA Devrinol	1	lb ai/a		38.5	a	0.8	bc	2.0	e	4.0	de	0.0	f
	Dual Magnum	12	oz/a											
13	Paladin+Pic 79:21: 60GPA Devrinol	1	lb ai/a		39.0	a	0.0	c	1.3	e	2.5	de	0.0	f
	No post													
14	Paladin+Pic 79:21: 60GPA Devrinol	1	lb ai/a		38.5	a	0.0	c	0.8	e	1.5	e	0.0	f
	Dual Magnum	12	oz/a											
15	Paladin+Pic 79:21: 40GPA Devrinol	2	lb ai/a		39.0	a	0.5	bc	6.5	de	19.3	bc	27.0	b
	No post													
16	Paladin+Pic 79:21: 40GPA Devrinol	2	lb ai/a		39.0	a	1.0	bc	4.5	de	11.8	cd	12.0	d
	Dual Magnum	12	oz/a											
17	Paladin+Pic 79:21: 50GPA Devrinol	2	lb ai/a		39.0	a	0.3	c	3.0	e	4.5	de	11.0	d
	No post													
18	Paladin+Pic 79:21: 50GPA Devrinol	2	lb ai/a		39.5	a	0.3	c	3.0	e	4.3	de	1.5	f
	Dual Magnum	12	oz/a											
19	Paladin+Pic 79:21: 60GPA Devrinol	2	lb ai/a		38.5	a	0.0	c	1.8	e	2.5	de	0.0	f
	No post													
20	Paladin+Pic 79:21: 60GPA Devrinol	2	lb ai/a		39.5	a	0.0	c	0.0	e	1.0	e	1.0	f
	Dual Magnum	12	oz/a											
LSD (P=.05)				.	1.78	.	4.51	11.85	10.17	.	7.07			
Standard Deviation				.	1.26	.	3.19	8.38	7.19	.	5.00			
CV				.	3.24	.	25.17	51.4	34.92	.	31.46			
Bartlett's X2				.	6.078	.	58.224	138.036	84.958	.	63.311			
P(Bartlett's X2)				.	0.998	.	0.001*	0.001*	0.001*	.	0.001*			

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Weed Code		CYPES	CYPES	CYPES	AMAPA
Crop Code	CPSAN				
Rating Data Type	STAND CTS	WEED CTS	WEED CTS	WEED CTS	WEED CTS
Rating Unit	#/plot	#/plot	#/plot	#/plot	#/plot
Rating Date	3/28/2011	3/18/2011	4/1/2011	4/7/2011	4/1/2011
Crop Stage					
Crop Stage Scale					
Assessed By					
ARM Action Codes					

Trt	Treatment	Rate									
No.	Name	Rate	Unit	25	26	27	28	29	30	31	32
Replicate F				1.088		0.336		1.810	3.051		2.971
Replicate Prob(F)				0.3615		0.7996		0.1556	0.0357		0.0392
Treatment F				0.238		520.302		75.258	103.750		67.278
Treatment Prob(F)				0.9994		0.0001		0.0001	0.0001		0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

University of Georgia

Weed Code	AMAPA	DIGSA	DIGSA	AVG20 PL	AVG20PLA	AVG20PLA
Crop Code				CPSAN	CPSAN	CPSAN
Rating Data Type	WEED CTS	WEED CTS	WEED CTS	HEIGHTS	HEIGHTS	HEIGHTS
Rating Unit	#/plot	#/plot	#/plot	cm	cm	cm
Rating Date	4/7/2011	4/1/2011	4/7/2011	4/4/2011	4/20/2011	5/17/2011
Crop Stage				AVERAGE	AVERAGE	AVERAGE
Crop Stage Scale						
Assessed By						
ARM Action Codes				T1	T2	T3

Trt No.	Treatment Name	Rate	Unit	33	34	35	36	37	58	81	104
1	no fumigant or herbicide No post			72.3	a	13.0	a	14.0	a	16.125	a
2	no fumigant or herbicide Dual Magnum	12	oz/a	55.3	b	0.0	b	0.3	e	16.388	a
3	Paladin+Pic 79:21: 40GPA No post			57.3	b	0.8	b	5.3	b	16.563	a
4	Paladin+Pic 79:21: 40GPA Dual Magnum	12	oz/a	13.3	efg	0.0	b	0.0	e	15.763	a
5	Paladin+Pic 79:21: 50GPA No post			19.5	de	0.0	b	5.5	b	15.438	a
6	Paladin+Pic 79:21: 50GPA Dual Magnum	12	oz/a	8.0	f-i	0.0	b	0.0	e	16.325	a
7	Paladin+Pic 79:21: 60GPA No post			7.0	ghi	0.0	b	0.8	e	16.075	a
8	Paladin+Pic 79:21: 60GPA Dual Magnum	12	oz/a	0.0	i	0.0	b	0.0	e	16.600	a
9	Paladin+Pic 79:21: 40GPA Devrinol	1	lb ai/a	42.0	c	0.3	b	3.0	c	16.375	a
10	Paladin+Pic 79:21: 40GPA Devrinol	1	lb ai/a	13.3	efg	0.0	b	0.0	e	16.188	a
11	Paladin+Pic 79:21: 50GPA Devrinol	1	lb ai/a	16.3	def	0.0	b	2.5	cd	16.875	a
12	Paladin+Pic 79:21: 50GPA Devrinol	1	lb ai/a	0.0	i	0.0	b	0.0	e	16.938	a
13	Paladin+Pic 79:21: 60GPA Devrinol	1	lb ai/a	4.0	hi	0.0	b	0.0	e	15.813	a
14	Paladin+Pic 79:21: 60GPA Devrinol	1	lb ai/a	0.0	i	0.0	b	0.0	e	16.100	a
15	Paladin+Pic 79:21: 40GPA Devrinol	2	lb ai/a	24.3	d	0.0	b	1.3	de	16.475	a
16	Paladin+Pic 79:21: 40GPA Devrinol	2	lb ai/a	9.5	fgh	0.0	b	0.0	e	16.963	a
17	Paladin+Pic 79:21: 50GPA Devrinol	2	lb ai/a	9.5	fgh	0.0	b	1.0	e	15.813	a
18	Paladin+Pic 79:21: 50GPA Devrinol	2	lb ai/a	0.8	i	0.0	b	0.0	e	17.025	a
19	Paladin+Pic 79:21: 60GPA Devrinol	2	lb ai/a	0.3	i	0.0	b	0.3	e	16.013	a
20	Paladin+Pic 79:21: 60GPA Devrinol	2	lb ai/a	0.0	i	0.0	b	0.0	e	15.738	a
	Dual Magnum	12	oz/a								
LSD (P=.05)				8.66	.	0.93	1.49	.	1.2559	1.6160	3.1039
Standard Deviation				6.13	.	0.65	1.05	.	0.8881	1.1427	2.1948
CV				34.78	.	93.47	62.31	.	5.46	4.76	3.86
Bartlett's X2				55.941	.	5.64	20.121	.	14.961	13.625	18.274
P(Bartlett's X2)				0.001*	.	0.06	0.017*	.	0.725	0.805	0.504

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Weed Code	AMAPA	DIGSA	DIGSA	AVG20 PL	AVG20PLA	AVG20PLA
Crop Code				CPSAN	CPSAN	CPSAN
Rating Data Type	WEED CTS	WEED CTS	WEED CTS	HEIGHTS	HEIGHTS	HEIGHTS
Rating Unit	#/plot	#/plot	#/plot	cm	cm	cm
Rating Date	4/7/2011	4/1/2011	4/7/2011	4/4/2011	4/20/2011	5/17/2011
Crop Stage				AVERAGE	AVERAGE	AVERAGE
Crop Stage Scale						
Assessed By						
ARM Action Codes				T1	T2	T3

Trt	Treatment	Rate	Unit	33	34	35	36	37	58	81	104
Replicate F				1.605		0.857	0.222		16.668	5.973	7.206
Replicate Prob(F)				0.1982		0.4690	0.8805		0.0001	0.0013	0.0003
Treatment F				50.512		78.602	41.013		1.051	2.020	5.283
Treatment Prob(F)				0.0001		0.0001	0.0001		0.4226	0.0215	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code HAR1-3 HAR1-3
 Crop Code CPSAN CPSAN
 Rating Data Type HAR1-3 HAR1-3
 Rating Unit #/plot lb/plot
 Rating Date 6/15/2011 6/15/2011
 Crop Stage
 Crop Stage Scale
 Assessed By
 ARM Action Codes T4 T5

Trt No.	Treatment Name	Rate	Rate Unit	T4	T5
				114	115
1	no fumigant or herbicide No post			0.0 h	0.00 i
2	no fumigant or herbicide Dual Magnum	12	oz/a	0.0 h	0.00 i
3	Paladin+Pic 79:21: 40GPA No post			0.0 h	0.00 i
4	Paladin+Pic 79:21: 40GPA Dual Magnum	12	oz/a	33.5 ef	16.35 ef
5	Paladin+Pic 79:21: 50GPA No post			0.0 h	0.00 i
6	Paladin+Pic 79:21: 50GPA Dual Magnum	12	oz/a	61.3 ab	28.50 bc
7	Paladin+Pic 79:21: 60GPA No post			31.0 f	14.78 fg
8	Paladin+Pic 79:21: 60GPA Dual Magnum	12	oz/a	63.8 a	34.05 ab
9	Paladin+Pic 79:21: 40GPA Devrinol	1	lb ai/a	15.3 g	7.63 h
10	No post Paladin+Pic 79:21: 40GPA Devrinol	1	lb ai/a	58.5 abc	28.15 bc
	Dual Magnum	12	oz/a		
11	Paladin+Pic 79:21: 50GPA Devrinol	1	lb ai/a	39.8 def	19.05 def
	No post				
12	Paladin+Pic 79:21: 50GPA Devrinol	1	lb ai/a	67.0 a	31.93 ab
	Dual Magnum	12	oz/a		
13	Paladin+Pic 79:21: 60GPA Devrinol	1	lb ai/a	46.3 cde	23.33 cde
	No post				
14	Paladin+Pic 79:21: 60GPA Devrinol	1	lb ai/a	64.8 a	31.88 ab
	Dual Magnum	12	oz/a		
15	Paladin+Pic 79:21: 40GPA Devrinol	2	lb ai/a	11.5 gh	5.35 hi
	No post				
16	Paladin+Pic 79:21: 40GPA Devrinol	2	lb ai/a	66.5 a	31.50 ab
	Dual Magnum	12	oz/a		
17	Paladin+Pic 79:21: 50GPA Devrinol	2	lb ai/a	16.5 g	8.95 gh
	No post				
18	Paladin+Pic 79:21: 50GPA Devrinol	2	lb ai/a	72.5 a	36.50 a
	Dual Magnum	12	oz/a		
19	Paladin+Pic 79:21: 60GPA Devrinol	2	lb ai/a	49.0 bcd	24.13 cd
	No post				
20	Paladin+Pic 79:21: 60GPA Devrinol	2	lb ai/a	58.8 abc	27.88 bc
	Dual Magnum	12	oz/a		
LSD (P=.05)				14.18	7.087
Standard Deviation				10.03	5.012
CV				26.53	27.1
Bartlett's X2				15.113	15.667
P(Bartlett's X2)				0.443	0.405

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Weed Code	HAR1-3	HAR1-3
Crop Code	CPSAN	CPSAN
Rating Data Type	HAR1-3	HAR1-3
Rating Unit	#/plot	lb/plot
Rating Date	6/15/2011	6/15/2011
Crop Stage		
Crop Stage Scale		
Assessed By		
ARM Action Codes	T4	T5

Trt	Treatment	Rate	Unit		
No.	Name	Rate	Unit	114	115
Replicate F				1.785	1.957
Replicate Prob(F)				0.1603	0.1308
Treatment F				27.925	26.823
Treatment Prob(F)				0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Pepper and weed response to Paladin Pic alone or in a system with Devrinol and/or Dual Magnum

Trial ID: Veg5-11

Study Dir.: Stanley Culpepper

Location: Ponder Farm

Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Stanley Culpepper	Title: EXT. WEED SCIENCE
Affiliation: UNIVERSITY OF GEORGIA	
Postal Code: 31794	
Investigator: Stanley Culpepper	Title: EXT. WEED SCIENCE
Affiliation: UNIVERSITY OF GEORIGIA	
Postal Code: 31794	

TRIAL LOCATION

City: TY TY	Trial Status: completed
State/Prov.: GA	Trial Reliability: good
Postal Code: 31795	Initiation Date: 2/15/2011
Country: USA	

Conducted Under GLP (Y/N): N

Conducted Under GEP (Y/N): N

CROP AND WEED DESCRIPTION

Weed Code	Common Name	Scientific Name
1. CYPES	YELLOW NUTSEDGE	CYPERUS ESCULENTUS
2. AMAPA	PALMER AMARANTH	
3. DIGSA	LARGE CRABGRASS	

Crop 1: CPSAN	BELL PEPPER	Variety: VANGUARD
Planting Date: 3/21/2011	Planting Method: TRANSPLANT-HAND	
Rate: 1	FOOT	Depth: 2 IN
Row Spacing: 14	IN	Spacing Within Row: 12 IN
Soil Temperature: 71	F	Seed Bed: RAISED, MULCH
Soil Moisture: MOIST		

SITE AND DESIGN

Plot Width, Unit: 6	FT	Plot Length, Unit: 30	FT	Reps: 4
Site Type: PONDER FARM				
Tillage Type: PLASTICULTURE		Study Design: FACTORIAL		

SOIL DESCRIPTION

% Sand: 90	% OM: 0.8	Texture: .
% Silt: 4	pH: 6.5	Soil Name: TIFTON SANDY LOAM
% Clay: 6	CEC: 400	

Overall Moisture Conditions: DRIP IRRIGATION

Closest Weather Station: www.griffin.uga.edu/aemn/

Distance: 200

Unit: yd

APPLICATION DESCRIPTION

	A	B
Application Date:	2/15/2011	3/28/2011
Time of Day:	1:00 PM	8:00 AM
Application Method:	BAND	BROADCAST
Application Timing:	PREPLANT	POST
Applic. Placement:	ON SOIL	OVERTOP
Air Temp., Unit:	63 F	54 F
% Relative Humidity:	55	90
Wind Velocity, Unit:	10 MPH	2 MPH
Dew Presence (Y/N):	N	Y
Soil Temp., Unit:	55 F	64 F
Soil Moisture:	MOIST	FAIR
% Cloud Cover:	0	100

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	CPSAN	CPSAN POST
Stage Scale:	preplant	5-6 leaf
Height, Unit:		4 inch

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	CYPES preplant	CYPES POST
Stage Scale:		6-8 IN
Weed 2 Code, Stage:	AMAPA preplant	AMAPA POST
Stage Scale:		1/4 IN
Weed 3 Code, Stage:	DIGSA preplant	DIGSA POST
Stage Scale:		1/4 IN

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APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	SUPER BED	BACKPACK
Operating Pressure:	26 PSI	26 PSI
Nozzle Type:	FLAT FAN	FLAT FAN
Nozzle Size:	11002	11002
Nozzle Spacing, Unit:	8 IN	18 IN
Nozzles/Row:	6	2
Boom Length, Unit:	4 FT	4.5 FT
Boom Height, Unit:	10 IN	15 IN
Ground Speed, Unit:	3 MPH	3 IN
Carrier:	H2O	H2O
Spray Volume, Unit:	25 GPA	15 GPA
Propellant:	CO2	CO2
Tank Mix (Y/N):	Y	Y