

University of Georgia

Pepper, tomato, and weed response to WSP formulations.

Trial ID: Veg36-11
Location: Ponder Farm

Study Dir.: Stanley Culpepper
Investigator: Stanley Culpepper

Use 3 gallons(s) per treatment mixture to spray 25 gal/ac

Plots: 6 by 25 feet

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt to Measure	Product	Plot No. By Rep			
										1	2	3	4
1	Blockade Mulch									101	204	301	412
2	2010WSP-340lb Blockade Mulch									102	209	304	411
	Devrinol	50	DF	3	lb/a	preplant	A	163.3 g/mx					
	Dual Magnum	7.64	L	12	oz/a	POT	B	42.58 ml/mx					
3	2010WSP- 360 lb Blockade Mulch									103	212	305	402
	Devrinol	50	DF	3	lb/a	preplant	A	163.3 g/mx					
	Dual Magnum	7.64	L	12	oz/a	POT	B	42.58 ml/mx					
4	2010WSP- 380 lb Blockade Mulch									104	203	308	406
	Devrinol	50	DF	3	lb/a	preplant	A	163.3 g/mx					
	Dual Magnum	7.64	L	12	oz/a	POT	B	42.58 ml/mx					
5	2011WSP-350lb Blockade Mulch									105	202	302	407
	Devrinol	50	DF	3	lb/a	preplant	A	163.3 g/mx					
	Dual Magnum	7.64	L	12	oz/a	POT	B	42.58 ml/mx					
6	2011WSP-375lb Blockade Mulch									106	210	311	404
	Devrinol	50	DF	3	lb/a	preplant	A	163.3 g/mx					
	Dual Magnum	7.64	L	12	oz/a	POT	B	42.58 ml/mx					
7	3-WAY LDPE									107	207	309	405
	Devrinol	50	DF	3	lb/a	preplant	A	163.3 g/mx					
	Dual Magnum	7.64	L	12	oz/a	POT	B	42.58 ml/mx					
8	MB-240lb Blockade Mulch									108	201	310	408
9	Paladin Pic 50G Blockade Mulch									109	205	307	403
	Devrinol	50	DF	3	lb/a	preplant	A	163.3 g/mx					
	Dual Magnum	7.64	L	12	oz/a	POT	B	42.58 ml/mx					
10	2010WSP-400lb Blockade									110	208	306	409
	Devrinol	50	DF	3	lb/a	preplant	A	163.3 g/mx					
	Dual Magnum	7.64	L	12	oz/a	POT	B	42.58 ml/mx					
11	2011WSP-400lb Blockade									111	211	312	410
	Devrinol	50	DF	3	lb/a	preplant	A	163.3 g/mx					
	Dual Magnum	7.64	L	12	oz/a	POT	B	42.58 ml/mx					
12	2011WSP-325lb Blockade									112	206	303	401
	Devrinol	50	DF	3	lb/a	preplant	A	163.3 g/mx					
	Dual Magnum	7.64	L	12	oz/a	POT	B	42.58 ml/mx					

Sort Order: Treatment

University of Georgia

Pepper, tomato, and weed response to WSP formulations.

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Trial Comments

OBJECTIVE: Find the most effective MB alternatives for Georgia pepper production.

VISUAL INJURY:

1. Fumigants were applied on July 19 with hole punching and transplanting occurring 17 days later (fall study).
2. Less than 2% injury was noted throughout the study.
3. Gas measurements were taken the day of planting verifying gas was no longer present in the bed.

VISUAL NUTSEDGE CONTROL:

1. At 1 month after fumigating control with all fumigant/herbicide systems was at least 98%.
2. By 2 months after fumigating, control was 92% with the 3-WAY, 94% with Paladin Pic, 97% with 2011 WSP at 350 lb/A (current recommended rate), and 97% with MB.
3. By 3 months after fumigation and at harvest, control was 92% with the 3-WAY, 91% with Paladin Pic, 98% with 2011 WSP at 350 lb/A (current recommended rate), and 95% with MB.

VISUAL PALMER AMARANTH CONTROL:

1. Excellent control was noted throughout the season.
2. At harvest the only systems with less than 99% control were Paladin Pic (95%) and MB (96%).

VISUAL LARGE CRABGRASS CONTROL:

1. Perfect control was noted with all fumigant/herbicide systems.

WEED COUNTS:

1. Number of plants present for each weed species were counted for the entire plot throughout the season.
2. Trends in plant populations present were similar to visual control estimates.

PEPPER HEIGHTS:

1. Twenty plants per plot were measured 3 times during the season.
2. No differences in plant heights were noted.

PEPPER HARVESTS:

1. Jumbo pepper were harvested by A grower's crew 4 times. One additional harvest was needed but frost ended the season too quickly.
2. Fruit number and weights produced were similar with all fumigant/herbicide systems; except for lower fruit weight were noted with the 2010 WSP at the lowest rate (not sure why this is as pest control was excellent).

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Trial ID: Veg36-11
 Location: Ponder Farm

Study Dir.: Stanley Culpepper
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Weed Code	CPSAN	CPSAN	CPSAN	CPSAN	CYPES	CYPES	CYPES
Crop Code	INJURY	INJURY	INJURY	INJURY	CONTROL	CONTROL	CONTROL
Rating Data Type	%	%	%	%	%	%	%
Rating Unit							
Rating Date	8/24/2011	8/31/2011	9/8/2011	9/15/2011	8/15/2011	8/24/2011	8/31/2011
Crop Stage							
Crop Stage Scale							
Assessed By	JS	JS	JS	JS	JS	JS	JS
ARM Action Codes							

Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7	8	9			
1	Blockade Mulch	0.0		a	0.0	a	0.0	a		0.0	d	0.0	d	0.0	d
2	2010WSP-340lb Blockade Mulch	1.3		a	0.0	a	0.0	a		98.8	ab	98.0	ab	97.0	ab
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
3	2010WSP- 360 lb Blockade Mulch	1.0		a	0.0	a	0.0	a		99.0	a	98.8	ab	98.8	a
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
4	2010WSP- 380 lb Blockade Mulch	0.5		a	0.0	a	0.0	a		99.0	a	99.0	a	98.8	a
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
5	2011WSP-350lb Blockade Mulch	1.3		a	0.0	a	0.0	a		99.0	a	98.5	ab	96.8	ab
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
6	2011WSP-375lb Blockade Mulch	1.8		a	0.0	a	0.0	a		99.0	a	98.8	ab	98.8	a
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
7	3-WAY LDPE	0.0		a	0.0	a	0.0	a		98.0	c	94.0	c	91.3	c
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
8	MB-240lb Blockade Mulch	0.5		a	0.0	a	0.0	a		98.5	abc	98.3	ab	98.3	ab
9	Paladin Pic 50G Bloackade Mulch	0.0		a	0.0	a	0.0	a		98.3	bc	96.3	bc	94.8	bc
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
10	2010WSP-400lb Blockade Mulch	0.0		a	0.0	a	0.0	a		99.0	a	97.8	ab	96.3	ab
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
11	2011WSP-400lb Blockade Mulch	0.0		a	0.0	a	0.0	a		99.0	a	98.3	ab	96.3	ab
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
12	2011WSP-325lb Blockade Mulch	0.5		a	0.0	a	0.0	a		99.0	a	98.5	ab	97.8	ab
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
LSD (P=.05)				1.80	0.00	0.00	0.00	.	.	0.52	2.50	3.69			
Standard Deviation				1.24	0.00	0.00	0.00	.	.	0.36	1.73	2.55			
CV				221.05	0.0	0.0	0.0	.	.	0.4	1.93	2.88			
Bartlett's X2				6.981	0.0	0.0	0.0	.	.	1.024	32.903	32.212			
P(Bartlett's X2)				0.323	0.795	0.001*	0.001*			

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Weed Code									
Crop Code	CPSAN	CPSAN	CPSAN	CPSAN				CYPES	CYPES
Rating Data Type	INJURY	INJURY	INJURY	INJURY				CPSAN	CPSAN
Rating Unit	%	%	%	%				CONTROL	CONTROL
Rating Date	8/24/2011	8/31/2011	9/8/2011	9/15/2011				%	%
Crop Stage								CONTROL	CONTROL
Crop Stage Scale								8/15/2011	8/24/2011
Assessed By	JS	JS	JS	JS				8/31/2011	
ARM Action Codes									

Trt	Treatment	Rate	1	2	3	4	5	6	7	8	9
No.	Name	Unit									
Replicate F			3.499	0.000	0.000	0.000			0.647	1.722	1.740
Replicate Prob(F)			0.0262	1.0000	1.0000	1.0000			0.5904	0.1815	0.1778
Treatment F			0.974	0.000	0.000	0.000			25254.649	1065.763	480.999
Treatment Prob(F)			0.4881	1.0000	1.0000	1.0000			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	CYPES	CYPES	CYPES	CYPES	AMAPA	AMAPA
Crop Code	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%	%
Rating Date	9/8/2011	9/15/2011	9/22/2011	10/20/2011	8/31/2011	9/8/2011
Crop Stage						
Crop Stage Scale						
Assessed By	JS	JS	JS	JS	JS	JS
ARM Action Codes						

Trt No.	Treatment Name	Rate	Unit	10	11	12	13	14	15	16	17			
1	Blockade Mulch	0.0		c	0.0	d	0.0	d	0.0	d	0.0	c	0.0	c
2	2010WSP-340lb Blockade Mulch	96.0		a	97.8	ab	96.5	abc	96.8	abc	99.0	a	99.0	a
	Devrinol	3	lb/a											
	Dual Magnum	12	oz/a											
3	2010WSP- 360 lb Blockade Mulch	98.5		a	98.8	a	99.0	a	99.0	a	99.0	a	99.0	a
	Devrinol	3	lb/a											
	Dual Magnum	12	oz/a											
4	2010WSP- 380 lb Blockade Mulch	98.8		a	99.0	a	99.0	a	97.3	abc	99.0	a	99.0	a
	Devrinol	3	lb/a											
	Dual Magnum	12	oz/a											
5	2011WSP-350lb Blockade Mulch	95.5		a	96.8	ab	97.8	ab	98.0	ab	99.0	a	99.0	a
	Devrinol	3	lb/a											
	Dual Magnum	12	oz/a											
6	2011WSP-375lb Blockade Mulch	98.8		a	98.8	a	98.8	ab	99.0	a	99.0	a	99.0	a
	Devrinol	3	lb/a											
	Dual Magnum	12	oz/a											
7	3-WAY LDPE	89.8		b	91.5	c	92.0	c	92.0	bc	99.0	a	99.0	a
	Devrinol	3	lb/a											
	Dual Magnum	12	oz/a											
8	MB-240lb Blockade Mulch	96.5		a	97.3	ab	98.3	ab	95.0	abc	96.8	b	97.3	b
9	Paladin Pic 50G Bloackade Mulch	94.0		ab	94.3	bc	93.8	bc	90.8	c	99.0	a	99.0	a
	Devrinol	3	lb/a											
	Dual Magnum	12	oz/a											
10	2010WSP-400lb Blockade	95.5		a	95.8	abc	94.3	abc	92.8	abc	99.0	a	99.0	a
	Devrinol	3	lb/a											
	Dual Magnum	12	oz/a											
11	2011WSP-400lb Blockade	95.3		a	96.0	ab	97.5	ab	97.3	abc	99.0	a	99.0	a
	Devrinol	3	lb/a											
	Dual Magnum	12	oz/a											
12	2011WSP-325lb Blockade	95.8		a	98.0	ab	96.0	abc	95.0	abc	99.0	a	99.0	a
	Devrinol	3	lb/a											
	Dual Magnum	12	oz/a											
LSD (P=.05)				4.92	4.35	5.05	6.78	.	.	1.88	1.46			
Standard Deviation				3.41	3.02	3.49	4.70	.	.	1.30	1.01			
CV				3.88	3.4	3.95	5.35	.	.	1.43	1.12			
Bartlett's X2				24.33	32.418	27.055	8.27	.	.	0.0	0.0			
P(Bartlett's X2)				0.007*	0.001*	0.001*	0.408	.	.	.	.
Replicate F				0.773	2.054	1.985	1.567			1.000	1.000			
Replicate Prob(F)				0.5176	0.1253	0.1353	0.2158			0.4051	0.4051			
Treatment F				265.967	344.732	256.439	139.726			1929.000	3191.041			
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001			0.0001	0.0001			

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Weed Code	CYPES	CYPES	CYPES	CYPES	AMAPA	AMAPA
Crop Code	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%	%
Rating Date	9/8/2011	9/15/2011	9/22/2011	10/20/2011	8/31/2011	9/8/2011
Crop Stage						
Crop Stage Scale						
Assessed By	JS	JS	JS	JS	JS	JS
ARM Action Codes						

Trt	Treatment	Rate								
No.	Name	Rate Unit	10	11	12	13	14	15	16	17

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	CYPES	CYPES
Crop Code	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	WEED CT	WEED CT
Rating Unit	%	%	%	%	#/PLOT	#/PLOT
Rating Date	9/22/2011	10/20/2011	9/22/2011	10/20/2011	8/5/2011	8/9/2011
Crop Stage					#/PLOT	#/PLOT
Crop Stage Scale						
Assessed By	JS	JS	JS	JS		
ARM Action Codes						

Trt No.	Treatment Name	Rate	Unit	18	19	20	21	22	23	24	25	26			
1	Blockade Mulch	0.0		b	0.0	c		0.0	b	0.0	b	60.5	a	71.8	a
2	2010WSP-340lb Blockade Mulch	99.0		a	99.0	a		99.0	a	99.0	a	0.0	b	0.0	b
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
3	2010WSP- 360 lb Blockade Mulch	99.0		a	99.0	a		99.0	a	99.0	a	0.0	b	0.0	b
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
4	2010WSP- 380 lb Blockade Mulch	99.0		a	99.0	a		99.0	a	99.0	a	0.0	b	0.0	b
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
5	2011WSP-350lb Blockade Mulch	99.0		a	99.0	a		99.0	a	99.0	a	0.0	b	0.0	b
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
6	2011WSP-375lb Blockade Mulch	99.0		a	99.0	a		99.0	a	99.0	a	0.0	b	0.0	b
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
7	3-WAY LDPE	99.0		a	99.0	a		99.0	a	99.0	a	0.0	b	0.0	b
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
8	MB-240lb Blockade Mulch	96.8		a	96.0	b		99.0	a	99.0	a	0.0	b	0.0	b
9	Paladin Pic 50G Bloackade Mulch	97.3		a	94.5	b		99.0	a	99.0	a	0.0	b	0.5	b
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
10	2010WSP-400lb Blockade	99.0		a	99.0	a		99.0	a	99.0	a	0.0	b	0.0	b
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
11	2011WSP-400lb Blockade	99.0		a	99.0	a		99.0	a	99.0	a	0.0	b	0.0	b
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
12	2011WSP-325lb Blockade	99.0		a	99.0	a		99.0	a	99.0	a	0.0	b	0.0	b
	Devrinol	3	lb/a												
	Dual Magnum	12	oz/a												
LSD (P=.05)				2.41	2.85	.	.	0.00	0.00	.	25.22	26.02			
Standard Deviation				1.67	1.97	.	.	0.00	0.00	.	17.47	18.02			
CV				1.85	2.19	.	.	0.0	0.0	.	346.51	299.34			
Bartlett's X2				0.185	0.121	.	.	0.0	0.0	.	0.0	23.618			
P(Bartlett's X2)				0.667	0.728	.	.	.	.	.	.	0.001*			
Replicate F				0.658	0.579			0.000	0.000		1.000	1.017			
Replicate Prob(F)				0.5840	0.6330			1.0000	1.0000		0.4051	0.3977			
Treatment F				1164.136	831.351			0.000	0.000		3.998	5.277			
Treatment Prob(F)				0.0001	0.0001			1.0000	1.0000		0.0010	0.0001			

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Weed Code	AMAPA	AMAPA	DIGSA	DIGSA	CYPES	CYPES
Crop Code	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	WEED CT	WEED CT
Rating Unit	%	%	%	%	#/PLOT	#/PLOT
Rating Date	9/22/2011	10/20/2011	9/22/2011	10/20/2011	8/5/2011	8/9/2011
Crop Stage					#/PLOT	#/PLOT
Crop Stage Scale						
Assessed By	JS	JS	JS	JS		
ARM Action Codes						

Trt	Treatment	Rate										
No.	Name	Rate	Unit	18	19	20	21	22	23	24	25	26

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	CYPES	CYPES
Crop Code	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN
Rating Data Type	WEED CT	WEED CT	WEED CT	WEED CT	WEED CT	WEED CT
Rating Unit	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT
Rating Date	8/15/2011	8/23/2011	8/30/2011	9/8/2011	9/23/2011	10/20/2011
Crop Stage	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT
Crop Stage Scale						
Assessed By						
ARM Action Codes						

Trt No.	Treatment Name	Rate	Unit	27	28	29	30	31	32	33	34
1	Blockade Mulch			73.3	a 69.8	a 100.3	a 171.8	a 15.0	a 15.5	a	
2	2010WSP-340lb Blockade Mulch			0.0	b 0.8	b 0.5	b 1.5	b 0.0	c 6.5	b	
	Devrinol	3	lb/a								
	Dual Magnum	12	oz/a								
3	2010WSP- 360 lb Blockade Mulch			0.0	b 0.3	b 0.5	b 0.0	b 0.0	c 0.0	b	
	Devrinol	3	lb/a								
	Dual Magnum	12	oz/a								
4	2010WSP- 380 lb Blockade Mulch			0.0	b 0.0	b 0.0	b 0.0	b 0.0	c 0.0	b	
	Devrinol	3	lb/a								
	Dual Magnum	12	oz/a								
5	2011WSP-350lb Blockade Mulch			0.0	b 0.3	b 0.8	b 1.0	b 0.0	c 0.5	b	
	Devrinol	3	lb/a								
	Dual Magnum	12	oz/a								
6	2011WSP-375lb Blockade Mulch			0.0	b 0.5	b 0.5	b 0.0	b 0.0	c 0.0	b	
	Devrinol	3	lb/a								
	Dual Magnum	12	oz/a								
7	3-WAY LDPE			0.3	b 4.7	b 4.3	b 6.8	b 6.0	b 2.5	b	
	Devrinol	3	lb/a								
	Dual Magnum	12	oz/a								
8	MB-240lb Blockade Mulch			0.3	b 2.3	b 0.5	b 3.0	b 1.0	bc 1.5	b	
9	Paladin Pic 50G Blockade Mulch			0.5	b 0.0	b 2.5	b 7.8	b 1.0	bc 1.8	b	
	Devrinol	3	lb/a								
	Dual Magnum	12	oz/a								
10	2010WSP-400lb Blockade			0.0	b 1.0	b 1.3	b 1.8	b 1.0	bc 1.0	b	
	Devrinol	3	lb/a								
	Dual Magnum	12	oz/a								
11	2011WSP-400lb Blockade			0.0	b 0.5	b 1.0	b 1.5	b 0.3	c 0.3	b	
	Devrinol	3	lb/a								
	Dual Magnum	12	oz/a								
12	2011WSP-325lb Blockade			0.0	b 0.3	b 0.5	b 2.3	b 1.3	bc 1.3	b	
	Devrinol	3	lb/a								
	Dual Magnum	12	oz/a								
LSD (P=.05)				24.00	9.34	24.50	35.68	5.30	7.75	.	.
Standard Deviation				16.62	6.47	16.97	24.71	3.67	5.37	.	.
CV				268.63	96.78	181.0	150.33	172.69	209.44	.	.
Bartlett's X2				65.678	92.148	132.184	97.234	36.148	53.428	.	.
P(Bartlett's X2)				0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	.	.
Replicate F				1.030	1.140	1.411	1.324	0.918	0.865		
Replicate Prob(F)				0.3918	0.3478	0.2570	0.2833	0.4429	0.4691		
Treatment F				6.458	37.842	11.396	15.713	5.709	2.754		
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	0.0001	0.0120		

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Weed Code	CYPES	CYPES	CYPES	CYPES	CYPES	CYPES
Crop Code	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN
Rating Data Type	WEED CT	WEED CT	WEED CT	WEED CT	WEED CT	WEED CT
Rating Unit	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT
Rating Date	8/15/2011	8/23/2011	8/30/2011	9/8/2011	9/23/2011	10/20/2011
Crop Stage	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT
Crop Stage Scale						
Assessed By						
ARM Action Codes						

Trt	Treatment	Rate	Unit	27	28	29	30	31	32	33	34
No.	Name	Rate	Unit	27	28	29	30	31	32	33	34

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	AMAPA	AMAPA	DIGSA	DIGSA	AVG20PLA
Crop Code	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN
Rating Data Type	WEED CT	WEED CT	WEED CT	WEED CT	WEED CT	WEED CT	HEIGHTS
Rating Unit	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT	CM
Rating Date	8/30/2011	9/8/2011	9/23/2011	10/20/2011	9/23/2011	10/20/2011	9/1/2011
Crop Stage	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT	AVERAGE
Crop Stage Scale							
Assessed By							
ARM Action Codes							T1

Trt No.	Treatment Name	Rate	Unit	35	36	37	38	39	40	41	64					
1	Blockade Mulch	6.3		a	5.8	a	134.3	a	268.8	a	5.0	a	85.0	a	13.088	a
2	2010WSP-340lb Blockade Mulch	0.0		b	0.5	b	1.8	b	0.0	c	0.0	b	0.0	b	13.888	a
	Devrinol	3	lb/a													
	Dual Magnum	12	oz/a													
3	2010WSP- 360 lb Blockade Mulch	0.0		b	0.0	b	0.0	b	0.0	c	0.0	b	0.0	b	13.938	a
	Devrinol	3	lb/a													
	Dual Magnum	12	oz/a													
4	2010WSP- 380 lb Blockade Mulch	0.0		b	0.0	b	0.8	b	0.5	c	0.0	b	0.0	b	13.800	a
	Devrinol	3	lb/a													
	Dual Magnum	12	oz/a													
5	2011WSP-350lb Blockade Mulch	0.0		b	0.0	b	1.5	b	1.8	bc	0.0	b	0.0	b	14.913	a
	Devrinol	3	lb/a													
	Dual Magnum	12	oz/a													
6	2011WSP-375lb Blockade Mulch	0.0		b	0.0	b	0.0	b	1.0	c	0.0	b	0.0	b	15.150	a
	Devrinol	3	lb/a													
	Dual Magnum	12	oz/a													
7	3-WAY LDPE	0.0		b	0.0	b	0.8	b	1.8	bc	0.0	b	0.0	b	13.913	a
	Devrinol	3	lb/a													
	Dual Magnum	12	oz/a													
8	MB-240lb Blockade Mulch	0.0		b	0.5	b	2.8	b	5.8	bc	0.0	b	0.3	b	14.425	a
9	Paladin Pic 50G Blockade Mulch	0.0		b	0.5	b	6.5	b	11.3	b	0.0	b	0.0	b	13.800	a
	Devrinol	3	lb/a													
	Dual Magnum	12	oz/a													
10	2010WSP-400lb Blockade	0.0		b	0.0	b	2.0	b	1.5	bc	0.0	b	0.0	b	14.550	a
	Devrinol	3	lb/a													
	Dual Magnum	12	oz/a													
11	2011WSP-400lb Blockade	0.0		b	0.0	b	1.0	b	1.0	c	0.0	b	0.0	b	14.538	a
	Devrinol	3	lb/a													
	Dual Magnum	12	oz/a													
12	2011WSP-325lb Blockade	0.0		b	0.0	b	2.3	b	4.0	bc	0.0	b	0.0	b	13.600	a
	Devrinol	3	lb/a													
	Dual Magnum	12	oz/a													
LSD (P=.05)				1.88	1.86	19.56	10.21	.	2.59	6.15	1.3603					
Standard Deviation				1.30	1.29	13.54	7.07	.	1.80	4.26	0.9421					
CV				249.42	212.75	105.88	28.54	.	430.81	59.97	6.67					
Bartlett's X2				0.0	13.764	87.47	60.54	.	0.0	15.921	4.421					
P(Bartlett's X2)				.	0.003*	0.001*	0.001*	.	.	0.001*	0.956					
Replicate F				1.000	1.459	1.230	1.377		1.000	0.950	3.564					
Replicate Prob(F)				0.4051	0.2437	0.3145	0.2671		0.4051	0.4278	0.0245					
Treatment F				7.716	6.478	31.965	473.274		2.586	132.605	1.561					
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001		0.0172	0.0001	0.1571					

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Weed Code	AMAPA	AMAPA	AMAPA	AMAPA	DIGSA	DIGSA	AVG20PLA
Crop Code	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN
Rating Data Type	WEED CT	WEED CT	WEED CT	WEED CT	WEED CT	WEED CT	HEIGHTS
Rating Unit	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT	CM
Rating Date	8/30/2011	9/8/2011	9/23/2011	10/20/2011	9/23/2011	10/20/2011	9/1/2011
Crop Stage	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT	AVERAGE
Crop Stage Scale							
Assessed By							
ARM Action Codes							T1

Trt	Treatment	Rate								
No.	Name	Rate Unit	35	36	37	38	39	40	41	64

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	AVG20PLA	AVG20PLA	HAR1-4	HAR1-4
Crop Code	CPSAN	CPSAN	CPSAN	CPSAN
Rating Data Type	HEIGHTS	HEIGHTS	HARVEST4	HARVEST4
Rating Unit	CM	CM	#/plot	lbs/plot
Rating Date	9/8/2011	9/22/2011	11/17/2011	11/17/2011
Crop Stage	AVERAGE	AVERAGE	Jumbo fr	Jumbo fr

Assessed By

ARM Action Codes

				T2	T3	T4	T5		
Trt No.	Treatment Name	Rate	Unit	87	110	122	123		
1	Blockade Mulch			18.725	a 35.300	a 13.8	b 7.93	c	
2	2010WSP-340lb Blockade Mulch			18.613	a 36.288	a 87.8	a 52.33	b	
	Devrinol	3	lb/a						
	Dual Magnum	12	oz/a						
3	2010WSP- 360 lb Blockade Mulch			18.538	a 35.538	a 98.0	a 63.50	a	
	Devrinol	3	lb/a						
	Dual Magnum	12	oz/a						
4	2010WSP- 380 lb Blockade Mulch			19.250	a 35.650	a 99.8	a 62.85	a	
	Devrinol	3	lb/a						
	Dual Magnum	12	oz/a						
5	2011WSP-350lb Blockade Mulch			19.763	a 37.475	a 96.8	a 61.88	a	
	Devrinol	3	lb/a						
	Dual Magnum	12	oz/a						
6	2011WSP-375lb Blockade Mulch			19.125	a 37.300	a 97.5	a 60.15	ab	
	Devrinol	3	lb/a						
	Dual Magnum	12	oz/a						
7	3-WAY LDPE			42.175	a 34.225	a 95.0	a 59.60	ab	
	Devrinol	3	lb/a						
	Dual Magnum	12	oz/a						
8	MB-240lb Blockade Mulch			18.963	a 37.138	a 93.5	a 58.20	ab	
9	Paladin Pic 50G Blockade Mulch			19.188	a 33.963	a 99.3	a 62.25	a	
	Devrinol	3	lb/a						
	Dual Magnum	12	oz/a						
10	2010WSP-400lb Blockade			17.938	a 37.088	a 94.3	a 58.18	ab	
	Devrinol	3	lb/a						
	Dual Magnum	12	oz/a						
11	2011WSP-400lb Blockade			18.838	a 37.363	a 99.5	a 63.00	a	
	Devrinol	3	lb/a						
	Dual Magnum	12	oz/a						
12	2011WSP-325lb Blockade			17.963	a 34.300	a 92.5	a 58.80	ab	
	Devrinol	3	lb/a						
	Dual Magnum	12	oz/a						
LSD (P=.05)				19.6563	2.7587	13.67	8.466		
Standard Deviation				13.6132	1.9106	9.47	5.863		
CV				65.59	5.31	10.64	10.52		
Bartlett's X2				137.3	9.912	20.264	12.626		
P(Bartlett's X2)				0.001*	0.538	0.042*	0.318		
Replicate F				1.095	4.448	0.158	0.403		
Replicate Prob(F)				0.3649	0.0099	0.9239	0.7515		
Treatment F				0.988	1.921	25.575	27.474		
Treatment Prob(F)				0.4768	0.0727	0.0001	0.0001		

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Weed Code	AVG20PLA	AVG20PLA	HAR1-4	HAR1-4
Crop Code	CPSAN	CPSAN	CPSAN	CPSAN
Rating Data Type	HEIGHTS	HEIGHTS	HARVEST4	HARVEST4
Rating Unit	CM	CM	#/plot	lbs/plot
Rating Date	9/8/2011	9/22/2011	11/17/2011	11/17/2011
Crop Stage	AVERAGE	AVERAGE	Jumbo fr	Jumbo fr
Crop Stage Scale				
Assessed By				
ARM Action Codes	T2	T3	T4	T5

Trt	Treatment	Rate			
No.	Name	Rate Unit	87	110	122
					123

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

Pepper, tomato, and weed response to WSP formulations.

Trial ID: Veg36-11
Location: Ponder Farm

Study Dir.: Stanley Culpepper
Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Stanley Culpepper **Title:** EXTENSION WEED SCIENCE
Affiliation: UNIVERSITY OF GEORGIA
Postal Code: 31793
Investigator: Stanley Culpepper **Title:** EXTENSION WEED SCIENCE
Affiliation: UNIVERSITY OF GEORGIA
Postal Code: 31793

TRIAL LOCATION

City: TY TY **Trial Status:** completed
State/Prov.: GA **Trial Reliability:** excellent
Postal Code: 31795 **Initiation Date:** 7/19/2011
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	Amaranthus palmeri
3.	DIGSA Large crabgrass	Digitaria sanguinalis

Crop 1: CPSAN BELL BEPPER **Variety:** VANGUARD
Planting Date: 8/16/2011 **Planting Method:** TRANSPLANT-HAND
Rate: 1 1 FT **Depth:** 2 IN
Row Spacing: 12 IN **Spacing Within Row:** 12 IN **Seed Bed:** RAISED, MULCH
Soil Temperature: 100 F **Soil Moisture:** IDEAL

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: PONDER FARM
Tillage Type: PLASTICULTURE **Study Design:** RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

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

Overall Moisture Conditions: DRIP IRRIGATION

Closest Weather Station: ON SITE

Distance: 250 **Unit:** YD

APPLICATION DESCRIPTION

	A	B
Application Date:	7/19/2011	8/22/2011
Time of Day:	3:00 PM	8:00 AM
Application Method:	BROADCAST	BROADCAST
Application Timing:	PREPLANT	POT
Applic. Placement:	ON SOIL	OVERTOP
Air Temp., Unit:	95 F	76 F
% Relative Humidity:	75	83
Wind Velocity, Unit:	3 MPH	0 MPH
Dew Presence (Y/N):	N	Y
Soil Temp., Unit:	90 F	82 F
Soil Moisture:	MOIST	MOIST
% Cloud Cover:	0	0

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	CPSAN preplant	CPSAN POT
Stage Scale:	none	7 LEAF
Height, Unit:	0 inch	3.5 IN

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	CYPES preplant	CYPES
Stage Scale:	none	
Density, Unit:	0 ydsq	see data
Weed 2 Code, Stage:	AMAPA preplant	AMAPA
Stage Scale:	none	
Density, Unit:	0 ydsq	see data
Weed 3 Code, Stage:	DIGSA preplant	DIGSA

Stage Scale: none
Density, Unit: 0 ydsq see data

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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 MPH
Carrier:	H2O	H2O
Spray Volume, Unit:	25 GPA	15 GPA
Propellant:	CO2	CO2
Tank Mix (Y/N):	Y	Y