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Nutsedge, pepper, and tomato response to fumigant/Eptam programs.

Trial ID: Veg36-07
 Location: Ponder Farm

Protocol ID:
 Study Director: Stanley Culpepper
 Investigator: Stanley Culpepper

Reps: 3 Plots: 6 by 25 feet
 Spray vol: 25 gal/ac Mix size: 3 liters (min .97763)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Growth Stage	Appl Code	Amt to Measure	Product	Plot No. 1	Plot No. 2	Plot No. 3
1	Pic Chlor 60 @ 21 GPA Blocade Mulch No Herbicide									101	206	305
2	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	7		L	3	PT/A PRE	A	45.0 ml/mx		102	208	307
3	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam Sanda	7 75		L DF	3	PT/A PRE OZ/A PRE	A A	45.0 ml/mx 0.674 g/mx		103	204	306
4	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	7		L	4	PT/A PRE	A	59.99 ml/mx		104	202	301
5	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch No Herbicide									105	203	302
6	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	7		L	3	PT/A PRE	A	45.0 ml/mx		106	207	304
7	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam Sanda	7 75		L DF	3	PT/A PRE OZ/A PRE	A A	45.0 ml/mx 0.674 g/mx		107	201	308
8	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	7		L	4	PT/A PRE	A	59.99 ml/mx		108	209	303
9	MB 50:50 @ 240 lb/A Blocade Mulch									109	205	309

Sort Order: Treatment

Product quantities required for listed treatments and applications in one trial:

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
374.960	ml	Eptam	7	L	
1.685	g	Sanda	75	DF	

* 'Per area' calculations based on spray volume= 25 gal/ac, mix size= 3 liters (mix size basis).
 * Product amount calculations increased 25 % for overage adjustment.

University of Georgia

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Trial Comments

OBJECTIVE: Determine nutsedge, pepper, and tomato response to fumigant systems using Eptam applied broadcast under the mulch.

VISUAL NUTSEDGE CONTROL:

1. MB provided only 82% control late in the season but was more effective than Pic Chlor 60 or Pic Chlor 60 + Vapam.
2. All treatments including Eptam provided excellent control.

NUTSEDGE COUNTS:

1. The number of nutsedge plants penetrating the mulch or plant hole were counted 4 times through the season.
2. All plots receiving Eptam were far more effective than the MB system or any other system not using Eptam.

VISUAL PEPPER INJURY:

1. Severe injury was noted with all plots containing Eptam.
2. Telone + Chloropicrin (Pic Chlor 60) did not injure pepper but the addition of 3 pt of Eptam caused 20% stunting and chlorosis while 4 pt/A of Eptam caused up to 50% injury.
3. Injury following Pic Chlor 60 or Pic Chlor 60 plus Vapam were similar.
4. Sandea plus Eptam caused severe pepper injury as expected.

PEPPER HEIGHTS:

1. Ten pepper plants per plot were measured twice.
2. Compared to MB, Telone + Pic, or Telone + Pic + Vapam, any system with Eptam reduced plant heights at least 24% in late sept.

PEPPER BIOMASS:

1. Ten plants per plot were harvested and weighed in early Sept.
2. All plots treated with Eptam noted at a loss of biomass by at least 38% compared to any fumigant system applied alone.

PEPPER YIELD

1. Jumbo pepper were harvested twice.
2. Greatest yields were noted with MB followed by Pic Chlor 60 + Vapam followed by Pic Chlor 60.
3. Compared to MB, yields were reduced at least 63% in any plot containing Eptam.

TOMATO VISUAL INJURY:

1. Significant injury was noted with all plots containing Eptam.
2. Telone + Chloropicrin (Pic Chlor 60) did not injure pepper but the addition of 3 pt of Eptam caused up to 17% stunting and chlorosis while 4 pt/A of Eptam caused up to 22% injury.
3. Injury following Pic Chlor 60 or Pic Chlor 60 plus Vapam were similar.
4. Sandea plus Eptam caused no more injury than Eptam alone.

TOMATO HEIGHTS:

1. Ten tomato plants per plot were measured twice.
2. Compared to MB, Telone + Pic, or Telone + Pic + Vapam, any system with Eptam reduced plant heights at least 13% in late sept.

TOMATO BIOMASS:

1. Four plants per plot were harvested and weighed in early Sept.
2. All plots treated with Eptam noted at a loss of biomass by at least 26% compared to any fumigant system applied alone.

TOMATO YIELD

1. Tomato were harvested 4 times and sized accordingly.
2. Tomato yellow leaf curl devastated the trial but tomato was still harvested for plot research.
3. When looking at total fruit production, MB produced the greatest yield followed by Pic Chlor 60 alone or in combination with Vapam.

University of Georgia

4. Tomato weights produced were reduced at least 30% by all Eptam plots when compared to the least productive fumigant system (Pic Chlor 60) applied without herbicides.

GENERAL COMMENTS:

1. Fumigants were applied, beds were formed and mulch was laid. Pic Chlor 60 and MB were applied with the super bedder plastic layer injected 8 inches deep with 3 knives on a 32 inch bedtop. Vapam was also injected with the fumigant rig placing Vapam 4 inch down and 4 inches apart in the final bed.
2. Eptam and Sandea were applied at 25 GPA immediately after fumigating and immediately prior to covering with mulch (fumigation, herbicide application, and mulch laying all one process).
3. Conditions were extremely dry for the first six weeks after fumigating. The first rainfall after transplanting did not occur for at least 4 weeks thus drip irrigation was intense.

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Trial ID: Veg36-07
 Location: Ponder Farm

Protocol ID:
 Study Director: Stanley Culpepper
 Investigator: Stanley Culpepper

Pest Code	CPSAN	CPSAN	CPSAN	LYPES	LYPES	LYPES	CYPRO	
Crop Code	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO		
BBCH Scale								
Description								
Rating Date	Aug-24-07	Sep-01-07	Sep-27-07	Aug-24-07	Sep-01-07	Sep-27-07	Aug-05-07	
Rating Data Type	%	%	%	%	%	%	%	
Rating Unit	injury	injury	injury	injury	injury	injury	control	
Assessed By	SC	SC	AD	SC	SC	SC	SC	
Days After First/Last Applic.	38	46		38	46	72	19	
Trt-Eval Interval	38 DA-A	38 DA-A	46 DA-A	38 DA-A	38 DA-A	38 DA-A	19 DA-A	
ARM Action Codes								
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	
		Unit	Unit	Unit	Unit	Unit	Unit	
		1	2	3	4	5	6	
		7						
1	Pic Chlor 60 @ 21 GPA Blocade Mulch No Herbicide	0 d	0 d	0 d	0 a	0 b	0 b	94 b
2	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	17 bc	20 c	17 bc	0 a	15 a	17 a	99 a
								3 PT/A
3	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	22 b	53 a	27 a	0 a	20 a	22 a	98 a
								3 PT/A
								0.75 OZ/A
4	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	20 bc	50 a	18 abc	5 a	22 a	22 a	99 a
								4 PT/A
5	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch No Herbicide	11 c	3 d	4 d	3 a	0 b	3 b	96 ab
6	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	20 bc	26 c	15 c	0 a	20 a	19 a	99 a
								3 PT/A
7	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	32 a	50 a	25 ab	2 a	19 a	17 a	99 a
								3 PT/A
								0.75 OZ/A
8	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	22 b	37 b	18 abc	2 a	21 a	22 a	99 a
								4 PT/A
9	MB 50:50 @ 240 lb/A Blocade Mulch	0 d	0 d	3 d	0 a	3 b	0 b	97 ab
LSD (P=.05)		8.5	11.1	8.7	4.7	6.6	10.6	3.5
Standard Deviation		4.9	6.4	5.0	2.7	3.8	6.1	2.0
CV		30.9	24.03	35.6	211.59	28.52	45.47	2.05
Bartlett's X2		3.447	2.707	3.944	1.419	4.931	7.682	1.278
P(Bartlett's X2)		0.751	0.845	0.786	0.701	0.294	0.262	0.734

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

University of Georgia

Pest Code	CYPRO	CYPRO	CYPRO	CYPRO	CYPRO	CYPRO	CYPRO
Crop Code							
BBCH Scale							
Description							
Rating Date	Aug-10-07	Aug-24-07	Sep-01-07	Sep-27-07	Aug-03-07	Aug-13-07	Aug-28-07
Rating Data Type	%	%	%	%	#	#	#
Rating Unit	control	control	control	control	per plot	per plot	per plot
Assessed By	SC	SC	SC	SC			
Days After First/Last Applic.	24	38	46	72	17	27	42
Trt-Eval Interval	19 DA-A	19 DA-A	19 DA-A	19 DA-A	27 DA-A	19 DA-A	27 DA-A
ARM Action Codes							
Trt Treatment							
Rate							
No. Name	8	9	10	11	12	13	14
1 Pic Chlor 60 @ 21 GPA Blocade Mulch No Herbicide	87 b	67 c	66 c	53 c	4 a	43 a	122 a
2 Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam 3 PT/A	99 a	97 a	97 ab	94 ab	0 c	0 b	2 b
3 Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam 3 PT/A Sanda 0.75 OZ/A	98 a	98 a	98 ab	95 ab	1 bc	1 b	3 b
4 Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam 4 PT/A	98 a	98 a	98 ab	98 a	0 c	2 b	9 b
5 Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch No Herbicide	89 b	77 b	72 c	67 c	3 ab	33 a	118 a
6 Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam 3 PT/A	99 a	98 a	98 a	91 ab	0 c	0 b	2 b
7 Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam 3 PT/A Sanda 0.75 OZ/A	99 a	99 a	97 ab	97 a	0 c	0 b	2 b
8 Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam 4 PT/A	99 a	99 a	99 a	97 a	0 c	0 b	1 b
9 MB 50:50 @ 240 lb/A Blocade Mulch	96 a	90 a	86 b	82 b	0 c	4 b	19 b
LSD (P=.05)	5.5	8.5	10.7	13.4	2.4	23.4	60.1
Standard Deviation	3.2	4.9	6.2	7.7	1.4	13.5	34.7
CV	3.32	5.37	6.87	8.99	147.7	146.51	113.28
Bartlett's X2	12.398	14.953	23.861	20.285	8.995	30.609	49.855
P(Bartlett's X2)	0.015*	0.021*	0.001*	0.009*	0.061	0.001*	0.001*

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

University of Georgia

Pest Code	plant 7 CPSAN	plant 8 CPSAN	plant 9 CPSAN	plant 10 CPSAN	AVG10PL CPSAN	plant 1 CPSAN	plant 2 CPSAN
Crop Code	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO
Description							
Rating Date	Sep-04-07	Sep-04-07	Sep-04-07	Sep-04-07	Sep-04-07	Sep-20-07	Sep-20-07
Rating Data Type	ht	ht	ht	ht	ht	ht	ht
Rating Unit	cm	cm	cm	cm	cm	cm	cm
Assessed By							
Days After First/Last Applic.	49	49	49	49	49	65	65
Trt-Eval Interval	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	65 DA-A
ARM Action Codes					T1		
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate
		Unit	Unit	Unit	Unit	Unit	Unit
22							
23							
24							
25							
26							
27							
28							
1	Pic Chlor 60 @ 21 GPA Blocade Mulch No Herbicide	19 a	22 a	22 a	23 a	22 a	41 a
2	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	16 ab	18 ab	15 bc	12 bc	17 bc	23 de
	3 PT/A						
3	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	10 bc	11 d	12 c	12 bc	13 d	19 e
	3 PT/A						
	Sandea						
	0.75 OZ/A						
4	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	10 c	11 d	11 c	9 c	12 d	18 e
	4 PT/A						
5	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch No Herbicide	18 a	20 ab	19 ab	18 abc	20 ab	39 ab
6	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	18 a	17 bc	17 ab	17 abc	17 bc	33 bc
	3 PT/A						
7	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	8 c	12 cd	12 c	13 bc	12 d	20 e
	3 PT/A						
	Sandea						
	0.75 OZ/A						
8	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	9 c	15 bcd	14 bc	14 abc	15 cd	28 cd
	4 PT/A						
9	MB 50:50 @ 240 lb/A Blocade Mulch	20 a	20 ab	21 a	21 ab	21 a	41 a
LSD (P=.05)		5.7	4.8	4.8	8.4	3.1	7.3
Standard Deviation		3.3	2.8	2.8	4.9	1.8	4.2
CV		23.0	17.3	17.49	31.47	11.0	14.39
Bartlett's X2		8.875	10.717	13.037	15.229	10.96	4.987
P(Bartlett's X2)		0.353	0.218	0.071	0.033*	0.204	0.759

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Column 26: T1 = @AVG([C16].[C25])

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Pest Code	plant 3	plant 4	plant 5	plant 6	plant 7	plant 8	plant 9
Crop Code	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO
Description							
Rating Date	Sep-20-07	Sep-20-07	Sep-20-07	Sep-20-07	Sep-20-07	Sep-20-07	Sep-20-07
Rating Data Type	ht	ht	ht	ht	ht	ht	ht
Rating Unit	cm	cm	cm	cm	cm	cm	cm
Assessed By							
Days After First/Last Applic.	65	65	65	65	65	65	65
Trt-Eval Interval	65 DA-A	65 DA-A	65 DA-A	65 DA-A	65 DA-A	65 DA-A	65 DA-A
ARM Action Codes							
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate
		Unit	Unit	Unit	Unit	Unit	Unit
		29	30	31	32	33	34
1	Pic Chlor 60 @ 21 GPA Blocade Mulch No Herbicide	44 a	41 a	43 a	37 ab	42 a	40 a
2	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	22 c	27 b	27 bc	31 bc	26 bcd	30 bc
							3 PT/A
3	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	22 c	21 b	18 e	17 e	19 d	17 e
							3 PT/A
							0.75 OZ/A
4	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	18 c	22 b	19 de	22 de	19 d	18 de
							4 PT/A
5	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch No Herbicide	38 ab	42 a	42 a	41 a	36 abc	35 ab
6	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	22 c	27 b	32 b	29 cd	25 cd	28 bcd
							3 PT/A
7	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	15 c	20 b	19 de	16 e	17 d	13 e
							3 PT/A
							0.75 OZ/A
8	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	26 bc	25 b	25 cd	20 e	17 d	20 cde
							4 PT/A
9	MB 50:50 @ 240 lb/A Blocade Mulch	40 a	41 a	39 a	41 a	36 ab	38 ab
LSD (P=.05)		12.5	8.9	6.2	7.6	10.6	9.6
Standard Deviation		7.2	5.1	3.6	4.4	6.1	5.5
CV		26.18	17.48	12.38	15.53	23.14	20.83
Bartlett's X2		11.94	13.046	8.252	14.5	5.58	3.589
P(Bartlett's X2)		0.154	0.11	0.409	0.07	0.694	0.892

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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Pest Code	plant 10	AVG10PLA	plant 1	plant 2	plant 3	plant 4	plant 5	
Crop Code	CPSAN	CPSAN	LYPES	LYPES	LYPES	LYPES	LYPES	
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	
Description								
Rating Date	Sep-20-07	Sep-20-07	Sep-04-07	Sep-04-07	Sep-04-07	Sep-04-07	Sep-04-07	
Rating Data Type	ht	ht	ht	ht	ht	ht	ht	
Rating Unit	cm	cm	cm	cm	cm	cm	cm	
Assessed By								
Days After First/Last Applic.	65	65	49	49	49	49	49	
Trt-Eval Interval	65 DA-A	65 DA-A	65 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	
ARM Action Codes		T2						
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	
		Unit	Unit	Unit	Unit	Unit	Unit	
36			37	38	39	40	41	42
1	Pic Chlor 60 @ 21 GPA Blocade Mulch No Herbicide	43 a	41 a	34 a	29 a	27 ab	28 a	29 ab
2	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	27 bcd	27 b	24 b	27 ab	27 ab	26 a	28 ab
3	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	19 cd	19 cd	32 ab	28 ab	28 ab	28 a	28 ab
4	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	22 bcd	20 cd	27 b	26 ab	27 ab	25 a	26 ab
5	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch No Herbicide	34 ab	37 a	27 ab	28 ab	26 ab	26 a	25 ab
6	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	24 bcd	28 b	26 b	25 ab	24 b	25 a	25 ab
7	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	15 d	17 d	29 ab	27 ab	28 ab	27 a	25 ab
8	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	19 cd	23 bc	28 ab	23 b	25 b	25 a	24 b
9	MB 50:50 @ 240 lb/A Blocade Mulch	32 abc	39 a	32 ab	31 a	33 a	30 a	30 a
LSD (P=.05)		13.0	5.1	6.5	5.5	5.8	5.2	4.9
Standard Deviation		7.5	2.9	3.7	3.2	3.4	3.0	2.9
CV		28.83	10.49	13.06	11.83	12.31	11.3	10.7
Bartlett's X2		5.534	11.323	6.388	3.125	10.69	7.076	5.893
P(Bartlett's X2)		0.699	0.184	0.604	0.926	0.22	0.528	0.659

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Column 37: T2 = @AVG([C27].[C36])

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Pest Code	plant 6	plant 7	plant 8	plant 9	plant 10	AVG10PLA	plant 1	
Crop Code	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES	
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	
Description								
Rating Date	Sep-04-07	Sep-04-07	Sep-04-07	Sep-04-07	Sep-04-07	Sep-04-07	Sep-20-07	
Rating Data Type	ht	ht	ht	ht	ht	ht	ht	
Rating Unit	cm	cm	cm	cm	cm	cm	cm	
Assessed By								
Days After First/Last Applic.	49	49	49	49	49	49	65	
Trt-Eval Interval	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	
ARM Action Codes						T3		
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	
		Unit	Unit	Unit	Unit	Unit	Unit	
		43	44	45	46	47	48	
1	Pic Chlor 60 @ 21 GPA Blocade Mulch No Herbicide	29 a	30 a	27 a	23 c	27 ab	28 ab	57 a
2	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	27 a	27 ab	27 a	29 ab	26 ab	27 bc	37 d
						3 PT/A		
3	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam Sanda	26 a	27 ab	25 a	26 abc	24 b	27 abc	47 a-d
						3 PT/A		
						0.75 OZ/A		
4	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	26 a	27 ab	24 a	26 abc	25 ab	26 bc	38 cd
						4 PT/A		
5	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch No Herbicide	29 a	31 a	27 a	29 a	30 a	28 ab	49 abc
6	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	25 a	26 ab	24 a	24 bc	23 b	25 c	44 bcd
						3 PT/A		
7	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam Sanda	24 a	24 b	27 a	28 abc	28 ab	27 bc	49 abc
						3 PT/A		
						0.75 OZ/A		
8	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	25 a	28 ab	26 a	26 abc	26 ab	26 bc	41 cd
						4 PT/A		
9	MB 50:50 @ 240 lb/A Blocade Mulch	30 a	31 a	30 a	29 a	25 ab	30 a	53 ab
LSD (P=.05)		5.2	4.6	6.6	4.6	4.5	2.8	10.5
Standard Deviation		3.0	2.7	3.8	2.7	2.6	1.6	6.1
CV		11.28	9.55	14.58	10.07	9.92	6.03	13.19
Bartlett's X2		6.59	10.002	6.201	16.107	6.843	13.579	3.233
P(Bartlett's X2)		0.473	0.265	0.625	0.041*	0.554	0.093	0.919

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Column 48: T3 = @AVG([C38].[C47])

University of Georgia

Pest Code	plant 2	plant 3	plant 4	plant 5	plant 6	plant 7	plant 8	
Crop Code	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES	
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	
Description								
Rating Date	Sep-20-07	Sep-20-07	Sep-20-07	Sep-20-07	Sep-20-07	Sep-20-07	Sep-20-07	
Rating Data Type	ht	ht	ht	ht	ht	ht	ht	
Rating Unit	cm	cm	cm	cm	cm	cm	cm	
Assessed By								
Days After First/Last Applic.	65	65	65	65	65	65	65	
Trt-Eval Interval	65 DA-A	65 DA-A	65 DA-A	65 DA-A	65 DA-A	65 DA-A	65 DA-A	
ARM Action Codes								
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	
		Unit	Unit	Unit	Unit	Unit	Unit	
50			51	52	53	54	55	56
1	Pic Chlor 60 @ 21 GPA Blocade Mulch No Herbicide	55 a	55 a	51 ab	56 a	56 a	55 a	57 a
2	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	43 bc	46 bc	48 ab	49 abc	49 abc	47 abc	42 b
							3 PT/A	
3	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam Sanda	47 abc	40 c	51 ab	46 a-d	46 a-d	45 bc	41 b
							3 PT/A 0.75 OZ/A	
4	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	38 c	41 c	39 b	42 cd	42 cd	41 c	34 b
							4 PT/A	
5	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch No Herbicide	46 bc	51 ab	47 ab	52 abc	52 abc	55 a	54 a
6	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	44 bc	43 c	43 ab	43 cd	43 cd	39 c	39 b
							3 PT/A	
7	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam Sanda	42 bc	47 bc	49 ab	45 bcd	45 bcd	42 c	42 b
							3 PT/A 0.75 OZ/A	
8	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	40 c	40 c	42 ab	37 d	37 d	43 c	40 b
							4 PT/A	
9	MB 50:50 @ 240 lb/A Blocade Mulch	50 ab	57 a	53 a	54 ab	54 ab	54 ab	52 a
LSD (P=.05)	8.1	6.6	10.5	9.5	9.5	9.3	8.8	
Standard Deviation	4.7	3.8	6.0	5.5	5.5	5.3	5.1	
CV	10.38	8.12	12.84	11.72	11.65	11.47	11.34	
Bartlett's X2	8.0	9.741	10.356	13.93	7.858	6.155	4.61	
P(Bartlett's X2)	0.433	0.284	0.241	0.084	0.345	0.63	0.798	

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

University of Georgia

Pest Code	plant 9	AVG9PLAN	Biomass	Biomass	Biomass	Biomass	Biomass			
Crop Code	LYPES	LYPES	CPSAN	CPSAN	CPSAN	LYPES	LYPES			
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO			
Description										
Rating Date	Sep-20-07	Sep-20-07	Sep-04-07	Sep-04-07	Sep-04-07	Sep-04-07	Sep-04-07			
Rating Data Type	ht	ht	#	wt/grams	wt/grams	#	wt/grams			
Rating Unit	cm	cm	per plot	per plot	per plan	per plot	per plot			
Assessed By										
Days After First/Last Applic.	65	65	49	49	49	49	49			
Trt-Eval Interval	65 DA-A	65 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A			
ARM Action Codes		T4								
Trt No.	Treatment Name	Rate	Unit	57	58	59	60	61	62	63
1	Pic Chlor 60 @ 21 GPA Blocade Mulch No Herbicide			48 ab	52 a	10 a	318 a	32 a	4 a	232 bc
2	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	3	PT/A	45 bc	43 b	10 a	150 c	15 c	4 a	149 cd
3	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam Sanda	3 0.75	PT/A OZ/A	41 bc	43 b	10 a	76 de	8 de	4 a	116 d
4	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	4	PT/A	36 c	38 c	10 a	96 cde	10 cde	4 a	121 d
5	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch No Herbicide			57 a	49 a	10 a	253 b	25 b	4 a	303 ab
6	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	3	PT/A	43 bc	41 bc	10 a	136 cd	14 cd	4 a	169 cd
7	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam Sanda	3 0.75	PT/A OZ/A	47 b	43 b	10 a	61 e	6 e	4 a	141 d
8	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	4	PT/A	42 bc	39 bc	10 a	119 cde	12 cde	4 a	121 d
9	MB 50:50 @ 240 lb/A Blocade Mulch			51 ab	51 a	10 a	245 b	25 b	4 a	316 a
LSD (P=.05)				9.5	4.5	0.0	65.3	6.5	0.0	79.4
Standard Deviation				5.5	2.6	0.0	37.7	3.8	0.0	45.9
CV				12.11	5.9	0.0	23.35	23.35	0.0	24.75
Bartlett's X2				10.384	13.478	0.0	20.815	20.815	0.0	12.93
P(Bartlett's X2)				0.239	0.096	.	0.008*	0.008*	.	0.114

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Column 58: T4 = @AVG([C48].[C57])

University of Georgia

Pest Code	Biomass	Harv 1	Harv 1	Harv 2	Harv 2	Harv1- 2	Harv1- 2	Harv 1	
Crop Code	LYPES	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	LYPES	
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	
Description									
Rating Date	Sep-04-07	Oct-17-07	Oct-17-07	Oct-25-07	Oct-25-07	Oct-25-07	Oct-25-07	Oct-18-07	
Rating Data Type	wt/grams	#	wt/lb	#	wt/lb	#	wt/lb	#	
Rating Unit	per plan	per plot	per plot	per plot	per plot	per plot	per plot	per plot	
Assessed By									
Days After First/Last Applic.	49	92	92	100	100	100	100	93	
Trt-Eval Interval	49 DA-A	92 DA-A	92 DA-A	92 DA-A	92 DA-A	100 DA-A	100 DA-A	100 DA-A	
ARM Action Codes						T5	T6		
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate	
		Unit							
64			65	66	67	68	69	70	71
1	Pic Chlor 60 @ 21 GPA Blocade Mulch No Herbicide	58 bc	18 b	7 b	12 bc	6 b	30 c	13 c	3 b
2	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	37 cd	1 c	0 c	3 d	1 c	4 d	2 d	6 ab
							3 PT/A		
3	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	29 d	4 c	2 c	5 cd	2 c	9 d	4 d	4 ab
							3 PT/A		
							0.75 OZ/A		
4	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	30 d	4 c	2 c	2 d	1 c	6 d	3 d	2 b
							4 PT/A		
5	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch No Herbicide	76 ab	36 a	16 a	14 b	6 b	50 b	21 b	5 ab
6	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	42 cd	17 b	6 b	7 bcd	3 bc	24 c	10 c	3 b
							3 PT/A		
7	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	35 d	3 c	1 c	5 cd	2 c	8 d	3 d	4 ab
							3 PT/A		
							0.75 OZ/A		
8	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	30 d	2 c	1 c	4 d	2 c	6 d	2 d	1 b
							4 PT/A		
9	MB 50:50 @ 240 lb/A Blocade Mulch	79 a	36 a	15 a	24 a	11 a	60 a	26 a	10 a
LSD (P=.05)		19.9	9.4	3.9	7.1	3.0	9.7	3.8	5.9
Standard Deviation		11.5	5.4	2.2	4.1	1.7	5.6	2.2	3.4
CV		24.75	40.62	40.31	48.47	44.93	25.67	23.58	81.21
Bartlett's X2		12.93	15.703	15.337	3.508	4.075	7.105	8.177	6.41
P(Bartlett's X2)		0.114	0.047*	0.053	0.899	0.85	0.525	0.416	0.601

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Column 69: T5 = ([C65]+[C67])

Column 70: T6 = ([C66]+[C68])

University of Georgia

Pest Code	Harv 1	Harv 2	Harv 2	Harv 3	Harv 3	Harv 3	Harv 3	Harv 3		
Crop Code	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES		
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO		
Description				jumbo	jumbo	large	large	medium		
Rating Date	Oct-18-07	Oct-25-07	Oct-25-07	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07		
Rating Data Type	wt/lb	#	wt/lb	#	wt/lb	#	wt/lb	#		
Rating Unit	per plot	per plot	per plot	per plot	per plot	per plot	per plot	per plot		
Assessed By										
Days After First/Last Applic.	93	100	100	106	106	106	106	106		
Trt-Eval Interval	100 DA-A	93 DA-A	93 DA-A	93 DA-A	93 DA-A	93 DA-A	93 DA-A	93 DA-A		
ARM Action Codes										
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate		
		Unit								
1	Pic Chlor 60 @ 21 GPA Blocade Mulch No Herbicide		1 b	7 b	3 b	8 a	3 a	18 b	6 bc	16 ab
2	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	3 PT/A	3 ab	5 b	2 b	5 a	2 a	18 b	8 b	24 a
3	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam Sanda	3 PT/A 0.75 OZ/A	2 ab	5 b	2 b	2 a	1 a	8 bc	3 c	20 ab
4	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	4 PT/A	1 b	2 b	1 b	2 a	1 a	8 c	3 c	7 b
5	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch No Herbicide		2 ab	8 b	3 b	4 a	2 a	17 bc	5 bc	13 ab
6	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	3 PT/A	1 b	6 b	2 b	4 a	2 a	16 bc	6 bc	14 ab
7	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam Sanda	3 PT/A 0.75 OZ/A	2 ab	8 b	3 b	2 a	1 a	14 bc	5 bc	21 a
8	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	4 PT/A	0 b	5 b	2 b	3 a	1 a	15 bc	5 bc	17 ab
9	MB 50:50 @ 240 lb/A Blocade Mulch		4 a	18 a	6 a	8 a	4 a	27 a	11 a	25 a
LSD (P=.05)			2.3	8.7	3.0	6.3	2.8	8.5	3.6	12.8
Standard Deviation			1.3	5.0	1.7	3.7	1.6	4.9	2.1	7.4
CV			80.7	70.0	65.52	84.53	87.75	31.46	35.92	42.13
Bartlett's X2			6.345	17.591	18.428	10.497	12.611	5.905	7.604	6.534
P(Bartlett's X2)			0.609	0.025*	0.018*	0.232	0.126	0.658	0.473	0.588

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

University of Georgia

Pest Code	Harv 3	Harv 3	Harv 3	Harv 4	Harv 4	Harv 4	Harv 4	Harv 4			
Crop Code	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES			
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO			
Description	medium	small	small	jumbo	jumbo	large	large	medium			
Rating Date	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07			
Rating Data Type	wt/lb	#	wt/lb	#	wt/lb	#	wt/lb	#			
Rating Unit	per plot	per plot	per plot	per plot	per plot	per plot	per plot	per plot			
Assessed By											
Days After First/Last Applic.	106	106	106	106	106	106	106	106			
Trt-Eval Interval	93 DA-A	93 DA-A	93 DA-A	106 DA-A	106 DA-A	106 DA-A	106 DA-A	106 DA-A			
ARM Action Codes											
Trt No.	Treatment Name	Rate	Unit	80	81	82	83	84	85	86	87
1	Pic Chlor 60 @ 21 GPA Blocade Mulch No Herbicide			4 ab	19 a	3 a	1 ab	0 a	8 abc	3 ab	23 ab
2	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam		3 PT/A	7 a	22 a	3 a	3 a	1 a	8 abc	2 b	7 bc
3	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam Sanda		3 PT/A 0.75 OZ/A	5 ab	24 a	3 a	1 ab	0 a	7 abc	2 b	10 bc
4	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam		4 PT/A	2 b	22 a	2 a	0 b	0 a	3 bc	1 b	5 c
5	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch No Herbicide			3 ab	24 a	4 a	3 a	6 a	9 abc	3 ab	14 bc
6	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam		3 PT/A	4 ab	21 a	3 a	1 ab	0 a	2 c	1 b	9 bc
7	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam Sanda		3 PT/A 0.75 OZ/A	6 ab	31 a	4 a	1 ab	0 a	13 ab	3 ab	2 c
8	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam		4 PT/A	4 ab	17 a	2 a	0 b	0 a	5 bc	2 b	9 bc
9	MB 50:50 @ 240 lb/A Blocade Mulch			8 a	20 a	3 a	1 ab	1 a	15 a	5 a	31 a
LSD (P=.05)				4.2	12.7	2.5	1.8	5.7	8.6	2.6	15.5
Standard Deviation				2.4	7.3	1.5	1.0	3.3	5.0	1.5	9.0
CV				50.55	33.18	52.02	88.19	302.28	64.86	62.0	73.67
Bartlett's X2				5.823	6.86	11.6	9.598	56.275	20.958	22.004	23.562
P(Bartlett's X2)				0.667	0.552	0.17	0.294	0.001*	0.004*	0.005*	0.003*

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

University of Georgia

Pest Code	Harv 4	Harv 4	Harv 4	Harv 3-4	Harv 3-4	Harv 3-4	Harv 3-4	Harv 3-4											
Crop Code	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES											
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO											
Description	medium	small	small	jumbo	jumbo	large	large	medium											
Rating Date	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07											
Rating Data Type	wt/lb	#	wt/lb	#	wt/lb	#	wt/lb	#											
Rating Unit	per plot	per plot	per plot	per plot	per plot	per plot	per plot	per plot											
Assessed By																			
Days After First/Last Applic.	106	106	106	106	106	106	106	106											
Trt-Eval Interval	106 DA-A	106 DA-A	106 DA-A	106 DA-A	106 DA-A	106 DA-A	106 DA-A	106 DA-A											
ARM Action Codes				T7	T8	T9	T10	T11											
Trt No.	Treatment Name	Rate	Unit	88	89	90	91	92	93	94	95								
1	Pic Chlor 60 @ 21 GPA Blocade Mulch No Herbicide	6	ab	103	a	14	a	9	a	4	a	59	b	22	bc	324	a		
2	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	3	PT/A	2	b	26	c	3	b	8	a	3	a	44	cd	13	d	151	c
3	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam Sanda	3	PT/A 0.75 OZ/A	3	b	26	c	3	b	3	a	1	a	45	c	15	cd	78	de
4	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	4	PT/A	1	b	12	c	1	b	2	a	1	a	39	d	12	d	97	cde
5	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch No Herbicide	4	b	87	ab	12	a	7	a	8	a	65	a	24	b	259	b		
6	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	3	PT/A	2	b	20	c	3	b	5	a	2	a	47	c	17	bcd	140	cd
7	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam Sanda	3	PT/A 0.75 OZ/A	2	b	37	bc	4	b	3	a	1	a	44	c	15	cd	63	e
8	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	4	PT/A	2	b	22	c	3	b	4	a	2	a	39	d	14	d	121	cde
9	MB 50:50 @ 240 lb/A Blocade Mulch	8	a	110	a	14	a	9	a	4	a	66	a	34	a	256	b		
LSD (P=.05)		4.2		54.2		6.8		7.1		6.3		4.2		7.1		63.4			
Standard Deviation		2.4		31.3		3.9		4.1		3.7		2.4		4.1		36.6			
CV		75.35		63.58		61.15		74.67		126.1		4.89		22.19		22.14			
Bartlett's X2		23.279		16.156		16.352		7.424		25.739		7.168		3.508		19.98			
P(Bartlett's X2)		0.003*		0.04*		0.038*		0.492		0.001*		0.519		0.899		0.01*			

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Column 91: T7 = ((C75)+[C83])

Column 92: T8 = ((C76)+[C84])

Column 93: T9 = ((C58)+[C66])

Column 94: T10 = ((C59)+[C67])

Column 95: T11 = ((C60)+[C68])

University of Georgia

Pest Code	Harv 3-4	Harv 3-4	Harv 3-4	Harv 1-4	Harv 1-4	Harv 1-4	Harv 1-4	Harv 1-4							
Crop Code	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES							
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO							
Description	medium	small	small	jumbo	jumbo	large	large	medium							
Rating Date	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07							
Rating Data Type	wt/lb	#	wt/lb	#	wt/lb	#	wt/lb	#							
Rating Unit	per plot	per plot	per plot	per plot	per plot	per plot	per plot	per plot							
Assessed By				jumbo	jumbo	large	large	med							
Days After First/Last Applic.	106	106	106	106	106	106	106	106							
Trt-Eval Interval	106 DA-A	106 DA-A	106 DA-A	106 DA-A	106 DA-A	106 DA-A	106 DA-A	106 DA-A							
ARM Action Codes	T12	T13	T14	T15	T16	T9	T10	T11							
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate							
		Unit	Unit	Unit	Unit	Unit	Unit	Unit							
96			97		98		99		100		101		102		103
1	Pic Chlor 60 @ 21 GPA Blocade Mulch No Herbicide	62 b	122 a	235 bc	39 b	17 b	59 b	22 bc	324 a						
2	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	19 d	48 c	155 cd	12 c	5 c	44 cd	13 d	151 c						
						3 PT/A									
3	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	16 d	50 c	120 d	12 c	5 c	45 c	15 cd	78 de						
						3 PT/A									
						0.75 OZ/A									
4	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	16 d	34 c	122 d	8 c	4 c	39 d	12 d	97 cde						
						4 PT/A									
5	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch No Herbicide	75 a	111 ab	308 ab	56 a	29 a	65 a	24 b	259 b						
6	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	38 c	41 c	172 cd	29 b	12 bc	47 c	17 bcd	140 cd						
						3 PT/A									
7	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	14 d	68 bc	145 d	11 c	4 c	44 c	15 cd	63 e						
						3 PT/A									
						0.75 OZ/A									
8	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	18 d	39 c	123 d	9 c	4 c	39 d	14 d	121 cde						
						4 PT/A									
9	MB 50:50 @ 240 lb/A Blocade Mulch	85 a	130 a	326 a	70 a	31 a	66 a	34 a	256 b						
LSD (P=.05)		12.1	50.9	80.5	13.5	7.7	4.2	7.1	63.4						
Standard Deviation		7.0	29.4	46.5	7.8	4.5	2.4	4.1	36.6						
CV		18.43	41.24	24.54	28.59	36.43	4.89	22.19	22.14						
Bartlett's X2		13.299	13.966	13.29	12.779	13.481	7.168	3.508	19.98						
P(Bartlett's X2)		0.102	0.083	0.102	0.12	0.096	0.519	0.899	0.01*						

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Column 96: T12 = ([C61]+[C69])

Column 97: T13 = ([C62]+[C70])

Column 98: T14 = ([C63]+[C71])

Column 99: T15 = ([C65]+[C67]+[C91])

Column 100: T16 = ([C66]+[C68]+[C92])

Column 101: T9 = ([C58]+[C66])

Column 102: T10 = ([C59]+[C67])

Column 103: T11 = ([C60]+[C68])

University of Georgia

Pest Code	Harv 1-4	Harv 1-4	Harv 1-4	Tot HAR	Tot HAR		
Crop Code	LYPES	LYPES	LYPES	LYPES	LYPES		
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO		
Description	medium	small	small				
Rating Date	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07	Oct-31-07		
Rating Data Type	wt/lb	#	wt/lb	#	lbs		
Rating Unit	per plot	per plot	per plot	plot	plot		
Assessed By	med	small	small	all sizes	all sizes		
Days After First/Last Applic.	106	106	106	106	106		
Trt-Eval Interval	106 DA-A	106 DA-A	106 DA-A	106 DA-A	106 DA-A		
ARM Action Codes	T12	T13	T14	T17	T18		
Trt No.	Treatment Name	Rate	Rate	Rate	Rate		
		Unit	104	105	106	108	109
1	Pic Chlor 60 @ 21 GPA Blocade Mulch No Herbicide		62 b	122 a	235 bc	544 a	336 b
2	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	3 PT/A	19 d	48 c	155 cd	254 b	192 c
3	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam Sanda	3 PT/A 0.75 OZ/A	16 d	50 c	120 d	184 b	156 c
4	Pic Chlor 60 @ 21 GPA Blocade Mulch Eptam	4 PT/A	16 d	34 c	122 d	178 b	154 c
5	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch No Herbicide		75 a	111 ab	308 ab	490 a	436 a
6	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	3 PT/A	38 c	41 c	172 cd	256 b	239 c
7	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam Sanda	3 PT/A 0.75 OZ/A	14 d	68 bc	145 d	186 b	178 c
8	Pic Chlor 60 @ 21 GPA Vapam 75 GPA Blocade Mulch Eptam	4 PT/A	18 d	39 c	123 d	209 b	158 c
9	MB 50:50 @ 240 lb/A Blocade Mulch		85 a	130 a	326 a	522 a	475 a
LSD (P=.05)			12.1	50.9	80.5	89.2	81.0
Standard Deviation			7.0	29.4	46.5	51.5	46.8
CV			18.43	41.24	24.54	16.42	18.12
Bartlett's X2			13.299	13.966	13.29	14.372	11.601
P(Bartlett's X2)			0.102	0.083	0.102	0.073	0.17

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Column 104: T12 = ([C61]+[C69])

Column 105: T13 = ([C62]+[C70])

Column 106: T14 = ([C63]+[C71])

Column 107: T17 = [C99]+[C101]+[C103]+[C105]

Column 108: T18 = [100]+[102]+[104]+[106]

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Nutsedge, pepper, and tomato response to fumigant/Eptam programs.

Trial ID: Veg36-07	Protocol ID:
Location: Ponder Farm	Study Director: Stanley Culpepper
	Investigator: Stanley Culpepper

General Trial Information

Study Director: Stanley Culpepper	Title: Ex. Weed Science
Affiliation: University of Georgia	
Postal Code: 31794	E-mail: _____
Investigator: Stanley Culpepper	Title: Ex. Weed Science
Affiliation: University of Georgia	
Postal Code: 31794	E-mail: _____

Keywords:

Trial Location

City: Tifton	Trial Status: completed
State/Prov.: GA	Trial Reliability: good
Postal Code: 31794	Initiation Date: Jul-17-07
Country: USA	Planned Completion Date: _____
-Latitude of LL Corner °: _____	-Longitude of LL Corner °: _____
Altitude of LL Corner: _____ Unit: _____	Angle y-axis to North °: _____
Map Reference: _____	
Directions:	

Conducted Under GLP: <input type="checkbox"/>	Official Trial Code: _____
Conducted Under GEP: <input type="checkbox"/>	Other Trial Code: _____

	Guideline	Description
1.		

Objectives:

Conclusions:

Cooperator/Landowner

Cooperator: _____	Country: _____
Organization: _____	Phone No: _____
Address 1: _____	Fax No: _____
Address 2: _____	
City: _____	
State/Prov: _____	
Postal Code: _____	E-mail: _____

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Crop Description	
Crop 1: CPSAN Capsicum annuum	Bell pepper
Variety: Hertiage	Description: _____
BBCH Scale: BVSO	Planting Date: Aug-13-07
Planting Method: transplant	Rate, Unit: 1 12 inch
Depth, Unit: 1.5 in	Perennial Age, Unit: _____
Row Spacing, Unit: 12 inch	Spacing Within Row, Unit: 12 inch
Seed Bed: mulched	Soil Temperature, Unit: 98 F
Soil Moisture: drip	Emergence Date: _____
Harvest Date: _____	Harvest Equipment: _____
Harvested Width, Unit: _____	Harvested Length, Unit: _____
% Standard Moisture: _____	Moisture Meter: _____
Weighing Equipment: _____	
Crop 2: LYPES Lycopersicon esculentum	Tomato
Variety: Bella Rosa	Description: _____
BBCH Scale: BVSO	Planting Date: Aug-13-07
Planting Method: transplant	Rate, Unit: 1 20 inch
Depth, Unit: 1.5 in	Perennial Age, Unit: _____
Row Spacing, Unit: 20 inch	Spacing Within Row, Unit: 20 inch
Seed Bed: mulched	Soil Temperature, Unit: 98 F
Soil Moisture: drip	Emergence Date: _____
Harvest Date: _____	Harvest Equipment: _____
Harvested Width, Unit: _____	Harvested Length, Unit: _____
% Standard Moisture: _____	Moisture Meter: _____
Weighing Equipment: _____	

Pest Description	
Pest 1 Type: W	Code: CYPRO _____
Common Name: Cyperus rotundus	
Description: Purple nutsedge	

Site and Design

Plot Width, Unit: 6 FT Site Type: Ponder Farm
 Plot Length, Unit: 25 FT Tillage Type: Conventional
 Replications: 3 Study Design: Randomized Complete Block
 % Slope: _____ Soil Drainage: _ _____

Trial Initiation Comments:

	Previous Crops	Previous Pesticides	Year
1.			

Maintenance

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

Comment:

Field Prep./Maintenance:

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Soil Description

Description Name: _____
 % Sand: 94 % OM: 6.4 Texture: Sand
 % Silt: 2 pH: 1.3 Soil Name: Tifton sandy loam
 % Clay: 4 CEC: _____ Fert. Level: _____
 Analyzed By: _____

Additional Measured Elements

Element	Quantity	Unit
1.3		

Moisture Conditions

Overall Moisture Conditions: Drip irrigation
 Closest Weather Station: _____ Distance: _____ Unit: _____

#	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Application Description

	A
Application Date:	Jul-17-07
Time of Day:	8:30 am
Application Method:	injected
Application Timing:	preplant
Application Placement:	on bed
Applied By:	
Air Temperature, Unit:	90 F
% Relative Humidity:	45
Wind Velocity, Unit:	4 mph
Wind Direction:	
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temperature, Unit:	88 F
Soil Moisture:	moist
% Cloud Cover:	10
Next Rain Occurred On:	

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	CPSAN BVSO
Stage Scale Used:	BBCH
Stage Majority, Percent:	0 100
Stage Minimum, Percent:	0 100
Stage Maximum, Percent:	0 100
Diameter, Unit:	0 in
Height, Unit:	0 in
Height Minimum, Maximum:	0 0

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Crop 2 Code, BBCH Scale:	LYPES BVSO
Stage Scale Used:	BBCH
Stage Majority, Percent:	0 100
Stage Minimum, Percent:	0 100
Stage Maximum, Percent:	0 100
Diameter, Unit:	0 in
Height, Unit:	0 in
Height Minimum, Maximum:	0 0

Pest Stage At Each Application

	A
Pest 1 Code, Disc., Scale:	CYPRO W .
Stage Majority, Percent:	.
Stage Minimum, Percent:	
Stage Maximum, Percent:	
Diameter, Unit:	
Height, Unit:	
Height Minimum, Maximum:	
Density, Unit:	0. .
Coverage, Unit:	

Application Equipment

	A
Appl. Equipment:	see
Operating Pressure, Unit:	comments PSI
Nozzle Type:	flat fan
Nozzle Size:	11002
Nozzle Spacing, Unit:	12 inch
Nozzles/Row:	5
Nozzle Calibration, Unit:	
Band Width, Unit:	36 inch
Boom ID:	
Boom Length, Unit:	6 feet
Boom Height, Unit:	12 inch
Ground Speed, Unit:	3 mph
Incorporation Equip.:	
Hours to Incorp.:	
Incorp. Depth, Unit:	
Carrier:	water
Spray Volume, Unit:	25 GAL/AC
Mix Size, Unit:	
Spray pH:	
Propellant:	CO2
Tank Mix (Y/N):	Y

Equipment Comment:

Trt No Treatment Application Comment

Date By Notes

University of Georgia

Date	By	Deviations
_____	_____	

Reasons: