

University of Georgia

Watermelon & nutsedge response to methyl brom. fumigant/herbicide alternatives.

Trial ID: Veg2-03
Location: ponder farm

Study Dir.: Langston/Culpepper
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 Georgia	
Postal Code: 31794	

TRIAL LOCATION

City: Ty Ty	Trial Status: completed
State/Prov.: Ga	Trial Reliability: good
Postal Code: 31794	Initiation Date: Feb-05-03
Country: U.S.A.	

Conducted Under GLP (Y/N): N Conducted Under GEP (Y/N): N

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	CYPRO	purple nutsedge	

Crop 1: CITLA WATERMELON **Variety:** Margaritia
Planting Date: Mar-15-03 **Planting Method:** transplant
Rate: 1 3.5 feet **Depth:** 1.5 in
Row Spacing: 6 foot **Spacing Within Row:** 3.5 feet **Seed Bed:** plastic
Soil Temperature: 78 F **Soil Moisture:** drip

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 27 FT **Reps:** 3
Site Type: research station
Tillage Type: plastic **Study Design:** SPLIT-PLOT

SOIL DESCRIPTION

% Sand: 94 **% OM:** 1.3 **Texture:** sand
% Silt: 4 **pH:** 5.9 **Soil Name:** Tifton sandy loam
% Clay: 2

Overall Moisture Conditions: .

APPLICATION DESCRIPTION

	A	B
Application Date:	Feb-05-03	Feb-20-03
Time of Day:	12:00p.m.	11 am
Application Method:	Broadcast	Broadcast
Application Timing:	Fumigant	10d later
Applic. Placement:	under pla	under pla
Air Temp., Unit:	68 F	68 F
% Relative Humidity:	48	50
Wind Velocity, Unit:	2 mph	2 mph
Dew Presence (Y/N):	N	N
Soil Temp., Unit:	62 F	63 F
Soil Moisture:	moist	moist
% Cloud Cover:	100	100

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	CITLA PRE	CITLA PRE
Stage Scale:	.	.
Height, Unit:	0. .	0. .

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WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	CYPRO PRE	CYPRO PRE
Stage Scale:	.	.
Density, Unit:

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	see comme	see comme

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Weed Code				CYPRO	CYPRO	CYPRO	CYPRO			
Crop Code										
Rating Data Type				emerged	emerged	emerged	emerged			
Rating Unit				#/plot	#/plot	#/plot	#/plot			
Rating Date				Mar-25-03	Apr-12-03	Apr-21-03	Jun-25-03			
Trt-Eval Interval				48 DA-A	66 DA-A	75 DA-A				
ARM Action Codes										
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7
16	T C35 (35 G/A) prebed Pic (150 lb/A) in bed non-treated			0.0	0.0	0.0	0.0	0.0	0.0	280.0
17	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Sanda	0.67 0.75	pt/a oz/a	0.0	2.3	0.0	1.3	0.3	1.7	19.0
18	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	0.0	0.0	0.0	1.7	1.3	1.0	17.7
19	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Dual Magnum	0.67 1	pt/a pt/a	0.0	2.3	0.0	0.3	0.3	0.3	21.7
20	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later non-treated			0.0	0.0	0.0	0.0	0.3	0.0	43.0
21	MI (175 lb) in bed Command Sanda	0.67 0.75	pt/a oz/a	1.7	0.0	0.0	0.0	0.0	0.0	8.0
22	MI (175 lb) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	3.3	6.7	0.0	0.0	0.0	0.0	20.3
23	MI (175 lb) in bed Command Dual Magnum	0.67 1	pt/a pt/a	7.7	2.7	0.0	0.3	0.7	0.7	20.3
24	MI (175 lb) in bed non-treated			0.0	4.0	0.0	0.0	0.3	0.0	6.0
25	Non-treated Command Sanda	0.67 0.75	pt/a oz/a	6.3	6.7	0.0	8.3	18.3	20.3	546.7
26	Non-treated Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	4.0	14.3	0.0	4.7	9.7	13.7	533.3
27	Non-treated Command Dual Magnum	0.67 1	pt/a pt/a	13.7	8.3	0.0	3.3	8.0	9.3	800.0
28	Non-treated non-treated			0.0	0.0	0.0	7.7	12.3	19.7	666.7
LSD (P=.05)				6.43	6.40	0.00	3.66	6.04	6.69	249.47
Standard Deviation				3.94	3.92	0.00	2.24	3.70	4.10	152.77
CV				183.73	159.77	0.0	192.08	168.89	147.0	124.71
Bartlett's X2				5.314	1.976	0.0	23.557	47.942	29.146	183.655
P(Bartlett's X2)				0.947	1.00	.	0.009*	0.001*	0.002*	0.001*

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

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Weed Code	CITLA	total CITLA	Melon	Melon	Melon	total	total		
Crop Code	number	melon/plot	< 10 lb	< 10 lb	< 10 lb	Melon	Melon		
Rating Data Type	plants	#	wt of ea	wt of ea	wt of ea	<10lb	<10lb		
Rating Unit	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	#/plot	lbs/plot		
Rating Date									
Trt-Eval Interval									
ARM Action Codes							T1		
Trt No.	Treatment Name	Rate	8	9	10	11	12	13	14
		Rate Unit							
1	MB (300 lbs/A) in bed Command Sanda	0.67 pt/a 0.75 oz/a	6.3	12.7	4.9	0.0	0.0	0.7	4.9
2	MB (300 lbs/A) in bed Command Sulfentrazone	0.67 pt/a 0.2 lb ai/a	6.3	14.0	6.5	3.2	0.0	1.0	9.7
3	MB (300 lbs/A) in bed Command Dual Magnum	0.67 pt/a 1 pt/a	5.0	13.0	3.7	2.2	0.0	1.3	5.9
4	MB (300 lbs/A) in bed non-treated		6.3	12.3	2.8	0.0	0.0	0.3	2.8
5	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Sanda	0.67 pt/a 0.75 oz/a	6.3	12.7	3.6	0.0	0.0	0.7	3.6
6	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Sulfentrazone	0.67 pt/a 0.2 lb ai/a	6.3	14.7	2.9	0.6	0.7	1.3	4.2
7	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Dual Magnum	0.67 pt/a 1 pt/a	6.3	12.0	2.0	2.1	0.0	0.7	4.1
8	Telone II (12 GPA) prebed Pic (150 lb/A) in bed non-treated		6.0	15.0	6.4	0.0	0.0	0.7	6.4
9	T C35 (35 G/A) in bed Command Sanda	0.67 pt/a 0.75 oz/a	5.7	16.0	3.0	0.0	0.0	0.3	3.0
10	T C35 (35 G/A) in bed Command Sulfentrazone	0.67 pt/a 0.2 lb ai/a	4.3	13.3	5.0	5.3	0.0	1.3	10.3
11	T C35 (35 G/A) in bed Command Dual Magnum	0.67 pt/a 1 pt/a	5.0	11.7	2.7	0.0	0.0	0.3	2.7
12	T C35 (35 G/A) in bed non-treated		5.3	12.7	6.7	1.1	0.0	1.3	7.8
13	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Sanda	0.67 pt/a 0.75 oz/a	6.0	14.3	4.5	5.8	0.0	1.7	10.3
14	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Sulfentrazone	0.67 pt/a 0.2 lb ai/a	5.7	13.7	2.9	0.0	0.0	0.3	2.9
15	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Dual Magnum	0.67 pt/a 1 pt/a	6.3	14.7	4.9	2.7	0.0	1.0	7.6
16	T C35 (35 G/A) prebed Pic (150 lb/A) in bed non-treated		6.3	14.7	3.9	1.4	0.0	1.0	5.3

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Weed Code	CITLA	total	Melon	Melon	Melon	total	total	
Crop Code	number	CITLA	< 10 lb	< 10 lb	< 10 lb	Melon	Melon	
Rating Data Type	plants	melon/plot	wt of ea	wt of ea	wt of ea	<10lb	<10lb	
Rating Unit	Jun-12-03	#	Jun-12-03	Jun-12-03	Jun-12-03	#/plot	lbs/plot	
Rating Date	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	
Trt-Eval Interval								
ARM Action Codes							T1	
Trt Treatment	Rate	8	9	10	11	12	13	14
No. Name	Rate Unit							
17 T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Sanda	0.67 pt/a 0.75 oz/a	6.0	13.0	5.0	1.9	0.0	1.0	6.9
18 T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Sulfentrazone	0.67 pt/a 0.2 lb ai/a	5.0	16.0	5.5	1.7	0.0	1.0	7.3
19 T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Dual Magnum	0.67 pt/a 1 pt/a	6.0	16.7	2.6	0.0	0.0	0.7	2.6
20 T C35 (17.5G/A) prebed K-pam (46 G) 10 d later non-treated		5.7	16.3	2.7	4.2	3.9	1.7	10.8
21 MI (175 lb) in bed Command Sanda	0.67 pt/a 0.75 oz/a	6.0	12.3	1.4	0.0	0.0	0.3	1.4
22 MI (175 lb) in bed Command Sulfentrazone	0.67 pt/a 0.2 lb ai/a	6.3	14.3	3.5	4.2	2.5	2.0	10.3
23 MI (175 lb) in bed Command Dual Magnum	0.67 pt/a 1 pt/a	5.7	10.0	3.1	0.0	0.0	0.3	3.1
24 MI (175 lb) in bed non-treated		6.3	13.0	5.1	1.5	0.0	1.0	6.7
25 Non-treated Command Sanda	0.67 pt/a 0.75 oz/a	6.0	14.7	2.6	0.0	0.0	0.3	2.6
26 Non-treated Command Sulfentrazone	0.67 pt/a 0.2 lb ai/a	5.3	11.0	7.9	0.0	0.0	1.0	7.9
27 Non-treated Command Dual Magnum	0.67 pt/a 1 pt/a	6.3	13.3	0.0	0.0	0.0	0.0	0.0
28 Non-treated non-treated		6.3	13.7	5.5	6.1	1.9	2.0	13.5
LSD (P=.05)		1.17	6.83	6.79	4.51	2.50	1.45	10.05
Standard Deviation		0.72	4.18	4.16	2.76	1.53	0.89	6.16
CV		12.17	30.67	104.31	175.91	477.06	98.44	104.72
Bartlett's X2		4.773	21.578	6.357	8.752	5.243	12.885	14.99
P(Bartlett's X2)		1.00	0.759	1.00	0.847	0.155	0.978	0.958

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

Column 14: T1 = [C10]+[C11]+[C12]

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Weed Code			individu	individu	individu	individu	individu	individu	individu
Crop Code			melon	melon	melon	melon	melon	melon	melon
Rating Data Type			10 - 20	10 - 20	10 - 20	10 - 20	10 - 20	10 - 20	10 - 20
Rating Unit			lbs	lbs	lbs	lbs	lbs	lbs	lbs
Rating Date			Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03
Trt-Eval Interval									
ARM Action Codes									
Trt No.	Treatment Name	Rate	15	16	17	18	19	20	21
		Unit							
1	MB (300 lbs/A) in bed Command Sanda	0.67 pt/a 0.75 oz/a	15.1	16.7	15.3	7.9	9.3	9.7	5.1
2	MB (300 lbs/A) in bed Command Sulfentrazone	0.67 pt/a 0.2 lb ai/a	14.7	18.1	17.3	16.5	17.5	16.9	13.8
3	MB (300 lbs/A) in bed Command Dual Magnum	0.67 pt/a 1 pt/a	16.9	16.9	10.5	9.9	9.3	11.5	10.2
4	MB (300 lbs/A) in bed non-treated		18.7	16.4	17.5	16.2	18.5	11.9	11.8
5	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Sanda	0.67 pt/a 0.75 oz/a	15.3	16.4	17.9	18.9	18.8	10.7	4.0
6	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Sulfentrazone	0.67 pt/a 0.2 lb ai/a	16.8	18.3	12.5	13.1	3.8	5.4	6.6
7	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Dual Magnum	0.67 pt/a 1 pt/a	17.5	6.3	4.5	5.5	6.3	6.3	4.7
8	Telone II (12 GPA) prebed Pic (150 lb/A) in bed non-treated		13.3	16.5	18.3	17.8	13.1	15.9	15.2
9	T C35 (35 G/A) in bed Command Sanda	0.67 pt/a 0.75 oz/a	17.3	17.4	17.3	18.3	16.4	9.7	9.7
10	T C35 (35 G/A) in bed Command Sulfentrazone	0.67 pt/a 0.2 lb ai/a	15.9	10.8	12.5	6.5	5.9	5.2	5.9
11	T C35 (35 G/A) in bed Command Dual Magnum	0.67 pt/a 1 pt/a	15.4	11.7	12.6	6.5	5.3	6.1	6.0
12	T C35 (35 G/A) in bed non-treated		16.0	16.1	16.1	17.8	16.6	11.7	5.5
13	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Sanda	0.67 pt/a 0.75 oz/a	15.1	15.1	18.9	12.5	11.3	6.4	6.9
14	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Sulfentrazone	0.67 pt/a 0.2 lb ai/a	17.6	12.2	10.9	11.1	11.1	10.5	11.9
15	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Dual Magnum	0.67 pt/a 1 pt/a	15.4	18.3	8.7	11.1	8.4	10.7	5.3
16	T C35 (35 G/A) prebed Pic (150 lb/A) in bed non-treated		16.5	17.1	10.0	11.7	12.5	12.1	11.4

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Weed Code		individu	individu	individu	individu	individu	individu	individu						
Crop Code		melon	melon	melon	melon	melon	melon	melon						
Rating Data Type		10 - 20	10 - 20	10 - 20	10 - 20	10 - 20	10 - 20	10 - 20						
Rating Unit		lbs	lbs	lbs	lbs	lbs	lbs	lbs						
Rating Date		Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03						
Trt-Eval Interval														
ARM Action Codes														
Trt No.	Treatment Name	Rate	Unit	15	16	17	18	19	20	21				
17	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Sanda	0.67 0.75	pt/a oz/a	17.0	15.8	18.7	11.7	11.3	4.5	6.5				
18	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	15.7	17.7	11.7	11.8	6.3	5.9	5.1				
19	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Dual Magnum	0.67 1	pt/a pt/a	15.1	16.9	17.9	17.9	18.3	11.1	11.1				
20	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later non-treated			15.6	18.6	17.1	16.9	11.8	11.5	11.3				
21	MI (175 lb) in bed Command Sanda	0.67 0.75	pt/a oz/a	17.1	16.3	14.7	18.3	16.9	10.7	6.1				
22	MI (175 lb) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	16.1	15.9	15.5	17.9	18.0	10.8	6.1				
23	MI (175 lb) in bed Command Dual Magnum	0.67 1	pt/a pt/a	16.1	17.3	14.9	9.7	11.3	12.3	10.1				
24	MI (175 lb) in bed non-treated			17.1	17.5	17.5	17.3	16.3	5.5	4.4				
25	Non-treated Command Sanda	0.67 0.75	pt/a oz/a	17.7	14.4	15.5	14.6	10.5	10.9	10.5				
26	Non-treated Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	15.1	19.1	15.9	11.4	5.4	4.0	0.0				
27	Non-treated Command Dual Magnum	0.67 1	pt/a pt/a	17.9	14.7	19.1	14.7	12.1	4.3	4.8				
28	Non-treated non-treated			17.1	14.8	16.1	10.5	12.1	6.1	5.9				
LSD (P=.05)		4.50		7.36		9.29		11.95		12.87		15.36		15.22
Standard Deviation		2.76		4.51		5.69		7.32		7.88		9.41		9.32
CV		16.96		28.49		38.34		54.81		65.99		101.97		120.79
Bartlett's X2		23.34		64.551		67.309		64.62		47.89		6.543		7.638
P(Bartlett's X2)		0.667		0.001*		0.001*		0.001*		0.008*		1.00		1.00

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

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Weed Code		individu	individu	individu	individu	individu	individu	individu		
Crop Code		melon	melon	melon	melon	melon	melon	melon		
Rating Data Type		10 - 20	10 - 20	10 - 20	10 - 20	10 - 20	10 - 20	10 - 20		
Rating Unit		lbs	lbs	lbs	lbs	lbs	lbs	lbs		
Rating Date		Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03		
Trt-Eval Interval										
ARM Action Codes										
Trt No.	Treatment Name	Rate	Unit	22	23	24	25	26	27	28
1	MB (300 lbs/A) in bed Command Sanda	0.67 0.75	pt/a oz/a	4.5	4.7	0.0	0.0	0.0	0.0	0.0
2	MB (300 lbs/A) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	4.1	0.0	0.0	0.0	0.0	0.0	0.0
3	MB (300 lbs/A) in bed Command Dual Magnum	0.67 1	pt/a pt/a	10.8	5.5	4.5	5.5	0.0	0.0	0.0
4	MB (300 lbs/A) in bed non-treated			12.6	6.1	0.0	0.0	0.0	0.0	0.0
5	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Sanda	0.67 0.75	pt/a oz/a	6.5	3.9	5.8	0.0	0.0	0.0	0.0
6	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	3.9	6.0	4.9	5.9	5.0	5.7	5.9
7	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Dual Magnum	0.67 1	pt/a pt/a	6.1	5.6	4.5	4.8	0.0	0.0	0.0
8	Telone II (12 GPA) prebed Pic (150 lb/A) in bed non-treated			18.1	14.7	10.3	11.9	5.7	5.3	0.0
9	T C35 (35 G/A) in bed Command Sanda	0.67 0.75	pt/a oz/a	5.5	5.7	6.2	6.6	0.0	0.0	0.0
10	T C35 (35 G/A) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	T C35 (35 G/A) in bed Command Dual Magnum	0.67 1	pt/a pt/a	5.7	6.3	4.2	6.3	0.0	0.0	0.0
12	T C35 (35 G/A) in bed non-treated			0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Sanda	0.67 0.75	pt/a oz/a	3.7	5.8	6.0	5.9	5.6	6.3	6.4
14	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	6.5	0.0	0.0	0.0	0.0	0.0	0.0
15	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Dual Magnum	0.67 1	pt/a pt/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	T C35 (35 G/A) prebed Pic (150 lb/A) in bed non-treated			12.9	11.1	5.3	6.5	0.0	0.0	0.0

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Weed Code		individu	individu	individu	individu	individu	individu	individu		
Crop Code		melon	melon	melon	melon	melon	melon	melon		
Rating Data Type		10 - 20	10 - 20	10 - 20	10 - 20	10 - 20	10 - 20	10 - 20		
Rating Unit		lbs	lbs	lbs	lbs	lbs	lbs	lbs		
Rating Date		Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03		
Trt-Eval Interval										
ARM Action Codes										
Trt No.	Treatment Name	Rate	Unit	22	23	24	25	26	27	28
17	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Sandea	0.67 0.75	pt/a oz/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	5.8	5.1	5.6	0.0	0.0	0.0	0.0
19	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Dual Magnum	0.67 1	pt/a pt/a	10.5	12.9	11.2	5.5	0.0	0.0	0.0
20	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later non-treated			13.0	12.1	6.3	6.0	0.0	0.0	0.0
21	MI (175 lb) in bed Command Sandea	0.67 0.75	pt/a oz/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	MI (175 lb) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	4.4	5.0	0.0	0.0	0.0	0.0	0.0
23	MI (175 lb) in bed Command Dual Magnum	0.67 1	pt/a pt/a	5.0	4.7	6.3	0.0	0.0	0.0	0.0
24	MI (175 lb) in bed non-treated			4.1	3.9	5.1	0.0	0.0	0.0	0.0
25	Non-treated Command Sandea	0.67 0.75	pt/a oz/a	10.1	5.5	8.8	4.1	6.5	5.4	6.3
26	Non-treated Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	Non-treated Command Dual Magnum	0.67 1	pt/a pt/a	4.5	6.1	5.9	6.6	5.9	5.7	0.0
28	Non-treated non-treated			5.3	0.0	0.0	0.0	0.0	0.0	0.0
LSD (P=.05)		13.25		12.67	12.19	10.55	6.67	6.58	5.55	
Standard Deviation		8.12		7.76	7.46	6.46	4.08	4.03	3.40	
CV		138.86		165.94	207.12	239.2	398.9	397.42	509.49	
Bartlett's X2		6.921		9.092	1.86	0.699	0.135	0.081	0.013	
P(Bartlett's X2)		0.998		0.958	1.00	1.00	0.998	0.999	0.993	

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

University of Georgia

Weed Code		individu	total	total	individu	individu	individu	individu		
Crop Code		melon	CITLA	CITLA	melon	melon	melon	melon		
Rating Data Type		10 - 20	10-20lbmel	10-20lbmel	>20 lb	>20 lb	>20 lb	>20 lb		
Rating Unit		lbs	#/plot	lbs/plot	lbs	lbs	lbs	lbs		
Rating Date		Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03		
Trt-Eval Interval										
ARM Action Codes				T2						
Trt No.	Treatment Name	Rate	Unit	29	30	31	32	33	34	35
1	MB (300 lbs/A) in bed Command Sanda	0.67 0.75	pt/a oz/a	0.0	6.0	88.2	24.1	23.9	24.3	23.5
2	MB (300 lbs/A) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	0.0	7.3	118.9	22.1	22.4	23.8	25.5
3	MB (300 lbs/A) in bed Command Dual Magnum	0.67 1	pt/a pt/a	0.0	7.0	111.3	23.2	26.5	14.1	7.1
4	MB (300 lbs/A) in bed non-treated			0.0	7.7	129.8	25.8	24.4	14.8	14.8
5	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Sanda	0.67 0.75	pt/a oz/a	0.0	7.0	118.2	24.9	24.8	23.9	25.8
6	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	0.0	6.7	113.8	26.8	22.3	24.3	14.9
7	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Dual Magnum	0.67 1	pt/a pt/a	0.0	4.3	72.3	27.7	26.7	23.9	22.6
8	Telone II (12 GPA) prebed Pic (150 lb/A) in bed non-treated			0.0	10.3	176.1	27.3	15.0	16.4	16.7
9	T C35 (35 G/A) in bed Command Sanda	0.67 0.75	pt/a oz/a	0.0	7.7	130.2	25.0	21.8	23.2	20.8
10	T C35 (35 G/A) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	0.0	3.7	62.6	25.8	25.3	22.7	27.7
11	T C35 (35 G/A) in bed Command Dual Magnum	0.67 1	pt/a pt/a	0.0	6.3	86.2	30.5	21.3	22.3	26.7
12	T C35 (35 G/A) in bed non-treated			0.0	6.0	99.8	15.0	14.7	14.4	18.5
13	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Sanda	0.67 0.75	pt/a oz/a	4.3	7.7	130.2	24.5	23.8	16.9	19.5
14	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	0.0	5.3	91.8	27.7	26.1	22.5	27.5
15	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Dual Magnum	0.67 1	pt/a pt/a	0.0	5.0	77.7	27.8	22.3	22.2	23.9
16	T C35 (35 G/A) prebed Pic (150 lb/A) in bed non-treated			0.0	7.3	127.1	24.8	24.7	26.5	20.9

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Weed Code		individu	total	total	individu	individu	individu	individu		
Crop Code		melon	CITLA	CITLA	melon	melon	melon	melon		
Rating Data Type		10 - 20	10-20lbmelo	10-20lbmel	>20 lb	>20 lb	>20 lb	>20 lb		
Rating Unit		lbs	#/plot	lbs/plot	lbs	lbs	lbs	lbs		
Rating Date		Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03		
Trt-Eval Interval										
ARM Action Codes				T2						
Trt No.	Treatment Name	Rate	Unit	29	30	31	32	33	34	35
17	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Sanda	0.67 0.75	pt/a oz/a	0.0	5.0	85.5	23.1	22.9	21.8	24.6
18	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	0.0	5.3	90.7	22.9	25.9	23.7	25.6
19	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Dual Magnum	0.67 1	pt/a pt/a	0.0	8.7	148.4	23.5	22.9	23.7	25.7
20	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later non-treated			0.0	8.0	140.3	22.8	24.9	25.6	24.8
21	MI (175 lb) in bed Command Sanda	0.67 0.75	pt/a oz/a	0.0	6.0	100.1	25.9	25.3	20.8	24.3
22	MI (175 lb) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	0.0	6.7	109.7	25.2	24.9	23.3	22.9
23	MI (175 lb) in bed Command Dual Magnum	0.67 1	pt/a pt/a	0.0	6.7	107.6	20.7	27.7	15.7	9.1
24	MI (175 lb) in bed non-treated			0.0	6.7	108.8	20.8	26.0	27.9	25.1
25	Non-treated Command Sanda	0.67 0.75	pt/a oz/a	0.0	8.7	141.0	23.9	22.6	24.7	23.8
26	Non-treated Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	0.0	4.3	70.8	22.7	22.8	26.4	23.0
27	Non-treated Command Dual Magnum	0.67 1	pt/a pt/a	0.0	7.3	122.1	25.1	26.1	23.3	16.2
28	Non-treated non-treated			0.0	5.3	88.1	23.9	23.1	23.5	22.1
LSD (P=.05)		2.32		6.13	99.13	7.19	8.01	11.02	13.44	
Standard Deviation		1.42		3.76	60.70	4.40	4.91	6.75	8.23	
CV		916.52		57.14	55.77	18.03	20.79	30.66	38.18	
Bartlett's X2		0.0		27.712	28.047	43.943	55.461	69.349	70.041	
P(Bartlett's X2)		.		0.426	0.409	0.021*	0.001*	0.001*	0.001*	

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

Column 31: T2 = [C15]+[C16]+[C17]+[C18]+[C19]+[C20]+[C21]+[C22]+[C23]+[C24]+[C25]+[C26]+[C27]+[C28]+[C29]

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Weed Code		individu	individu	individu	individu	individu	individu	individu		
Crop Code		melon	melon	melon	melon	melon	melon	melon		
Rating Data Type		>20 lb	>20 lb	>20 lb	>20 lb	>20 lb	>20 lb	>20 lb		
Rating Unit		lbs	lbs	lbs	lbs	lbs	lbs	lbs		
Rating Date		Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03		
Trt-Eval Interval										
ARM Action Codes										
Trt No.	Treatment Name	Rate	Unit	36	37	38	39	40	41	42
1	MB (300 lbs/A) in bed Command Sanda	0.67 0.75	pt/a oz/a	14.0	7.8	8.5	6.9	7.1	0.0	0.0
2	MB (300 lbs/A) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	17.3	13.9	7.5	0.0	0.0	0.0	0.0
3	MB (300 lbs/A) in bed Command Dual Magnum	0.67 1	pt/a pt/a	6.8	8.3	8.1	6.8	0.0	0.0	0.0
4	MB (300 lbs/A) in bed non-treated			15.5	6.8	7.4	0.0	0.0	0.0	0.0
5	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Sanda	0.67 0.75	pt/a oz/a	14.7	7.3	0.0	0.0	0.0	0.0	0.0
6	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	18.5	18.3	16.2	15.1	7.5	7.4	7.9
7	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Dual Magnum	0.67 1	pt/a pt/a	25.3	23.4	7.3	6.9	0.0	0.0	0.0
8	Telone II (12 GPA) prebed Pic (150 lb/A) in bed non-treated			7.4	0.0	0.0	0.0	0.0	0.0	0.0
9	T C35 (35 G/A) in bed Command Sanda	0.67 0.75	pt/a oz/a	23.7	25.6	15.4	15.5	7.5	8.6	0.0
10	T C35 (35 G/A) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	25.2	26.9	15.1	19.1	14.3	10.3	0.0
11	T C35 (35 G/A) in bed Command Dual Magnum	0.67 1	pt/a pt/a	26.3	17.7	7.8	7.5	0.0	0.0	0.0
12	T C35 (35 G/A) in bed non-treated			17.4	9.4	10.9	7.5	0.0	0.0	0.0
13	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Sanda	0.67 0.75	pt/a oz/a	15.9	15.4	7.5	0.0	0.0	0.0	0.0
14	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	25.1	17.0	16.7	14.2	14.3	8.7	0.0
15	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Dual Magnum	0.67 1	pt/a pt/a	22.5	25.5	27.1	9.3	10.9	6.8	7.2
16	T C35 (35 G/A) prebed Pic (150 lb/A) in bed non-treated			15.5	6.9	7.1	7.7	6.7	7.9	0.0

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Weed Code		individu	individu	individu	individu	individu	individu	individu		
Crop Code		melon	melon	melon	melon	melon	melon	melon		
Rating Data Type		>20 lb	>20 lb	>20 lb	>20 lb	>20 lb	>20 lb	>20 lb		
Rating Unit		lbs	lbs	lbs	lbs	lbs	lbs	lbs		
Rating Date		Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03		
Trt-Eval Interval										
ARM Action Codes										
Trt No.	Treatment Name	Rate	Unit	36	37	38	39	40	41	42
17	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Sandeia	0.67 0.75	pt/a oz/a	23.5	24.3	16.1	8.0	0.0	0.0	0.0
18	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	27.8	24.1	18.5	15.5	14.9	9.6	8.1
19	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Dual Magnum	0.67 1	pt/a pt/a	25.1	22.9	22.1	0.0	0.0	0.0	0.0
20	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later non-treated			17.7	17.1	6.9	8.1	7.7	7.9	0.0
21	MI (175 lb) in bed Command Sandeia	0.67 0.75	pt/a oz/a	25.9	16.2	7.3	0.0	0.0	0.0	0.0
22	MI (175 lb) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	17.5	15.2	10.4	0.0	0.0	0.0	0.0
23	MI (175 lb) in bed Command Dual Magnum	0.67 1	pt/a pt/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	MI (175 lb) in bed non-treated			15.2	10.0	9.1	0.0	0.0	0.0	0.0
25	Non-treated Command Sandeia	0.67 0.75	pt/a oz/a	16.9	8.8	7.1	6.7	0.0	0.0	0.0
26	Non-treated Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	23.2	17.4	0.0	0.0	0.0	0.0	0.0
27	Non-treated Command Dual Magnum	0.67 1	pt/a pt/a	14.7	18.7	11.1	7.7	9.1	0.0	0.0
28	Non-treated non-treated			25.3	13.5	7.5	6.9	0.0	0.0	0.0
LSD (P=.05)				17.29	19.74	19.53	16.41	13.24	12.83	7.16
Standard Deviation				10.59	12.09	11.96	10.05	8.11	7.85	4.38
CV				56.56	80.83	120.26	166.01	226.8	326.62	529.13
Bartlett's X2				51.033	41.744	8.665	0.714	0.801	0.498	0.031
P(Bartlett's X2)				0.002*	0.019*	0.997	1.00	1.00	0.999	0.985

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

University of Georgia

Weed Code		individu	individu	individu	total	total	total	total		
Crop Code		melon	melon	melon	CITLA	CITLA	CITLA	CITLA		
Rating Data Type		>20 lb	>20 lb	>20 lb	>20lbmelon	>20lbmelon	>10lb	>10lb		
Rating Unit		lbs	lbs	lbs	#/plot	lbs/plot	#/plot	lbs/plot		
Rating Date		Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03		
Trt-Eval Interval										
ARM Action Codes						T3	T4	T5		
Trt No.	Treatment Name	Rate	Unit	43	44	45	46	47	48	49
1	MB (300 lbs/A) in bed Command Sanda	0.67 0.75	pt/a oz/a	0.0	0.0	0.0	6.0	139.9	12.0	228.1
2	MB (300 lbs/A) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	0.0	0.0	0.0	5.3	132.5	12.7	251.3
3	MB (300 lbs/A) in bed Command Dual Magnum	0.67 1	pt/a pt/a	0.0	0.0	0.0	4.3	100.9	11.3	212.3
4	MB (300 lbs/A) in bed non-treated			0.0	0.0	0.0	4.7	109.5	12.3	239.3
5	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Sanda	0.67 0.75	pt/a oz/a	0.0	0.0	0.0	5.0	121.5	12.0	239.7
6	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	0.0	0.0	0.0	6.7	171.3	13.3	285.1
7	Telone II (12 GPA) prebed Pic (150 lb/A) in bed Command Dual Magnum	0.67 1	pt/a pt/a	0.0	0.0	0.0	6.3	163.8	10.7	236.1
8	Telone II (12 GPA) prebed Pic (150 lb/A) in bed non-treated			0.0	0.0	0.0	3.3	82.7	13.7	258.9
9	T C35 (35 G/A) in bed Command Sanda	0.67 0.75	pt/a oz/a	0.0	0.0	0.0	7.3	187.2	15.0	317.4
10	T C35 (35 G/A) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	0.0	0.0	0.0	8.0	212.3	11.7	274.9
11	T C35 (35 G/A) in bed Command Dual Magnum	0.67 1	pt/a pt/a	0.0	0.0	0.0	6.3	160.2	12.7	246.4
12	T C35 (35 G/A) in bed non-treated			0.0	0.0	0.0	4.3	107.7	10.3	207.5
13	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Sanda	0.67 0.75	pt/a oz/a	0.0	0.0	0.0	5.0	123.5	12.7	253.7
14	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	0.0	0.0	0.0	8.0	199.9	13.3	291.7
15	T C35 (35 G/A) prebed Pic (150 lb/A) in bed Command Dual Magnum	0.67 1	pt/a pt/a	7.6	0.0	0.0	8.7	206.1	13.7	283.8
16	T C35 (35 G/A) prebed Pic (150 lb/A) in bed non-treated			0.0	0.0	0.0	6.3	148.9	13.7	276.0

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Weed Code		individu	individu	individu	total	total	total	total		
Crop Code		melon	melon	melon	CITLA	CITLA	CITLA	CITLA		
Rating Data Type		>20 lb	>20 lb	>20 lb	>20lbmelon	>20lbmelon	>10lb	>10lb		
Rating Unit		lbs	lbs	lbs	#/plot	lbs/plot	#/plot	lbs/plot		
Rating Date		Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03	Jun-12-03		
Trt-Eval Interval										
ARM Action Codes						T3	T4	T5		
Trt No.	Treatment Name	Rate	Unit	43	44	45	46	47	48	49
17	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Sandea	0.67 0.75	pt/a oz/a	0.0	0.0	0.0	7.0	164.3	12.0	249.8
18	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	7.0	7.1	10.7	9.7	233.3	15.0	324.0
19	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later Command Dual Magnum	0.67 1	pt/a pt/a	0.0	0.0	0.0	7.0	165.7	15.7	314.0
20	T C35 (17.5G/A) prebed K-pam (46 G) 10 d later non-treated			0.0	0.0	0.0	6.7	163.6	14.7	303.9
21	MI (175 lb) in bed Command Sandea	0.67 0.75	pt/a oz/a	0.0	0.0	0.0	6.0	145.7	12.0	245.9
22	MI (175 lb) in bed Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	0.0	0.0	0.0	5.7	139.5	12.3	249.2
23	MI (175 lb) in bed Command Dual Magnum	0.67 1	pt/a pt/a	0.0	0.0	0.0	3.0	73.3	9.7	180.9
24	MI (175 lb) in bed non-treated			0.0	0.0	0.0	5.3	134.1	12.0	242.9
25	Non-treated Command Sandea	0.67 0.75	pt/a oz/a	0.0	0.0	0.0	5.7	134.5	14.3	275.5
26	Non-treated Command Sulfentrazone	0.67 0.2	pt/a lb ai/a	0.0	0.0	0.0	5.7	135.5	10.0	206.3
27	Non-treated Command Dual Magnum	0.67 1	pt/a pt/a	0.0	0.0	0.0	6.0	152.0	13.3	274.1
28	Non-treated non-treated			0.0	0.0	0.0	6.3	145.7	11.7	233.8
LSD (P=.05)		5.57		3.81		5.70	3.70	86.93	7.07	122.60
Standard Deviation		3.41		2.33		3.49	2.26	53.23	4.33	75.08
CV		654.58		916.52		916.52	37.36	35.87	34.3	29.19
Bartlett's X2		0.013		0.0		0.0	21.145	28.144	26.585	31.432
P(Bartlett's X2)		0.908		.		.	0.734	0.404	0.486	0.254

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

Column 47: T3 = [C32]+[C33]+[C34]+[C35]+[C36]+[C37]+[C38]+[C39]+[C40]+[C41]+[C43]+[C44]+[C45]

Column 48: T4 = [30]+[46]

Column 49: T5 = [31]+[47]

University of Georgia

Watermelon & nutsedge response to methyl brom. fumigant/herbicide alternatives.

Trial ID: Veg2-03
Location: ponder farm

Study Dir.: Langston/Culpepper
Investigator: Stanley Culpepper

Trial Comments

GENERAL COMMENTS: Herbicides applied PRE after forming bed and just prior to laying plastic. Herbicides applied at 27.4 GPA. Fumigants applied with various pieces of equipment. KPAM applied with spray boom to soil surface and incorporated in 3-4 inches with tilovator just prior to forming bed and laying plastic. Prebed treatments were applied with the Yetter rig while in bed treatments were applied with the super bedder plastic layer.

CROP RESPONSE (main effects were significant and are reported):

- 1) Pooled over herbicides, more injury was detected in the non fumigated plots than in plots treated with fumigants at 4 WAP. However, stunting was less than 14% in all treatments.
- 2) Pooled over fumigants, Command plus Dual or Command plus Sandea stunted melons slightly when compared to the non-treated control at 4 WAT. Less than 14% injury was noted with any treatment. No injury was noted at 8 WAP.

PURPLE NUTSEDGE CONTROL (main effects were significant and are reported):

- 1) All fumigants reduced nutsedge emergence similarly at each evaluation date. Additionally, there were no statistical differences between fumigant treatments.
- 2) Herbicides did not reduce nutsedge emergence through plastic.

PLANT STANDS:

- 1) Neither fumigant or herbicide treatments impacted plant stands.

YIELD (main effects were significant and are reported):

- 1) The total number of melons harvested from each treatment were similar.
- 2) The total number of melons less than 10 lbs were similar among treatments.
- 3) The total number of melons weighing between 10 and 20 lbs were similar among treatments.
- 4) The total number of melons weighing greater than 20 lbs did not differ from the non-treated fumigant plot, when pooled over herbicide treatments.
- 5) The total number of melons harvested (including all sizes) were similar among all treatments.

CONCLUSION:

- 1) All fumigants controlled nutsedge better than no fumigant but there were no differences among fumigants.
- 2) Herbicides did not provide statistically improve nutsedge control, however trends in the reduction of nutsedge plant populations were noted especially at late season.
- 3) Trial sucked because of few to no differences. Little to no help in the search for a methyl bromide alternative!!!!
- 4) Average yield of trials was 69238.9 lbs per acre!!!