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Determining plant back interval when applying the 3 way fumigant systems.

Trial ID: Veg12-07

Study Dir.: Culpepper, Sumner, MacRae

Location: TVP

Investigator: Stanley Culpepper

Reps: 3

Plots: 6 by 15 feet

Spray vol: 14.8 gal/ac

Mix size: 1 liters (min .34726)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Grow Unit	Appl Stg	Amt to Measure	Product	Plot No. 1	Plot No. 2	Plot No. 3	By Rep
1	MB 67:33 LDPE (350 lb) 7 day									101	206	301	
2	MB 67:33 LDPE (350 lb) 7 day + 1 day									102	205	302	
3	MB 67:33 LDPE (350 lb) 14 day									111	208	311	
4	MB 67:33 LDPE (350 lb) 14 day + 1 day									112	207	312	
5	3 Way Full Rate LDPE 7 day									103	204	303	
6	3 Way Full Rate LDPE 7 day + 1 day									104	203	304	
7	3 Way Full Rate LDPE 14 day									109	210	307	
8	3 Way Full Rate LDPE 14 day + 1 day									110	209	308	
9	3 Way Full Rate VIF 7 day									105	202	305	
10	3 Way Full Rate VIF 7 day + 1 day									106	201	306	
11	3 Way Full Rate VIF 14 day									107	212	309	
12	3 Way Full Rate VIF 14 day + 1 day									108	211	310	

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
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* 'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 1 liters (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

Trial Comments

OBJECTIVE: Determine planting interval needed when applying the UGA 3-WAY under LDPE and VIF mulch for tomato, pepper, and cantaloupe.

GAS MEASUREMENT:

1. Using the MiniRae the amount of gas in the bed was measured at time of planting in an effort to correlate the amount of PPM gas in the bed at planting with the level of injury noted.

VISUAL STUNTING:

- No injury was noted from MB regardless of application timing; thus 29 ppm of MB had no impact on any crop.
- Planting 7 d after fumigating with the 3 WAY under LDPE mulch, soil had 76 ppm gas in the bed and caused 10 to 16% stunting of crops at 18 DAP. Airing the bed for only 1 d did not alleviate this injury although there was only 14 ppm in these beds at planting which did led to crops generally recovering from early season stunting more quickly.
- Planting 14 d after fumigating with the 3 way under LDPE mulch, soil had only 4 ppm and caused less than 10% crop stunting.

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4. Planting 7 d after fumigating with the 3-WAY under VIF mulch, soil had 368 ppm gas and caused 68 to 88% damage at 18 DAP. Injury was 23 to 38% if the beds were "aired" for 1 d prior to planting and had 31 ppm gas in the soil.
5. Planting 14 d after fumigating with the 3 way under VIF mulch caused 12 to 17% stunting at 18 DAP and had 38 ppm in the bed. Airing the beds for 1 d caused less than 10% injury with rapid recovery from minor stunting.

PLANT HEIGHTS:

1. Seven plants per plot were measured 3 WAP and and 5 WAP.
2. Plant back interval did not impact crop growth following MB treatments.
3. Plant back of 7 d with the 3WAY under LDPE noted stunting or a trend for stunting with all crops. Airing beds for 1 d did not alleviate injury.
4. Plant back following the 3-WAY on LDPE of 15 day after airing the bed for 1 d did not impact growth for all crops compared to methyl bromide. Minor stunting especially for cantaloupe was noted for the 3-WAY under LDPE when planting at 14 d without airing the bed when compared to MB.
5. Plant back of 7 d with the 3WAY under VIF mulch noted severe stunting. Airing the bed for 1 d did not alleviate stunting.
5. Plant back of 14 d with the 3 WAY under VIF mulch reduced tomato growth and tended to reduce pepper and cantaloupe growth compared to MB.

PLANT BIOMASS:

1. Compared to the relative planting time with MB, less plant biomass for each crop was noted when following the 3-WAY. The greater the level of gas in the bed at planting the lower the biomass levels for each crop.

TOMATO YIELD (harvested 5 times):

1. Under LDPE mulch following the 3-WAY, a trend for a slight delay in large fruit was noted but no impact on total yield was noted.
2. Under VIF mulch following the 3-WAY, all planting times noted a trend for less early fruit. Additionally, a significant trend for less fruit weight was produced when planting at 7 or 14 day after fumigating when not airing the bed.
3. Trends of early yield loss of Jumbo fruit were noted with with all 3-WAY treatments; thus, 3 PPM in the bed at planting can delay yield.
4. A trend in total yield loss was predominately noted in plots having at least 38 ppm gas at planting.

PEPPER YIELD (harvested 2 times):

1. Statistically less fruit were noted when planting at 7 or 8 day after applying the 3-WAY under VIF.
2. A trend for yield loss was noted for all systems having greater than 4 ppm in the bed at planting.

CANTALOUPE YIELD (harvested 9 times):

1. Cantaloupe was less sensitive to early stunting.
2. Yields were generally not impacted with a tendency for more fruit from all 3-WAY plots produced on LDPE mulch.

GENERAL COMMENTS:

1. Telone II applied 12 inch deep with 3 knives.
2. Pic and MB applied 8 inch deep with 3 knives.
3. Vapam injected 4 inches deep 4 inches apart.

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Trial ID: Veg12-07

Study Dir.: Culpepper, Sumner, MacRae

Location: TVP

Investigator: Stanley Culpepper

Weed Code	MiniRae gas n bed ppm	LYPES stunting %	LYPES stunting %	CPSAN stunting %	CPSAN stunting %	CUMMC stunting %	CUMMC stunting %	plant 1 LYPES height cm	plant 2 LYPES height cm			
Rating Data Type												
Rating Unit												
Rating Date												
Assessed By		SC	SC	SC	SC	SC	SC					
Trt-Eval Interval		18 DAP	30 DAP	18 DAP	30 DAP	18 DAP	30 DAP	3WAP	3WAP			
ARM Action Codes												
Trt No.	Treatment Name	Rate	Unit	1	3	4	5	6	7	8	10	11
1	MB 67:33 LDPE (350 lb) 7 day	29	cd	0 d	0 b	0 d	0 d	0 b	0 e	0 b	40 ab	37 ab
2	MB 67:33 LDPE (350 lb) 7 day + 1 day	2	e	0 d	0 b	0 d	0 d	0 b	0 e	0 b	41 a	38 a
3	MB 67:33 LDPE (350 lb) 14 day	2	e	0 d	0 b	0 d	0 d	0 b	0 e	3 b	40 ab	38 a
4	MB 67:33 LDPE (350 lb) 14 day + 1 day	0	e	0 d	0 b	0 d	0 d	0 b	0 e	0 b	38 abc	36 ab
5	3 Way Full Rate LDPE 7 day	77	b	11 cd	7 b	16 c	10 b	13 cd	7 b	7 b	33 a-e	34 abc
6	3 Way Full Rate LDPE 7 day + 1 day	14	de	10 cd	0 b	9 cd	3 b	8 cde	0 b	0 b	35 a-d	33 abc
7	3 Way Full Rate LDPE 14 day	4	e	5 d	2 b	8 cd	2 b	8 de	0 b	0 b	34 a-d	34 abc
8	3 Way Full Rate LDPE 14 day + 1 day	3	e	4 d	0 b	4 d	0 b	6 de	0 b	0 b	32 b-e	30 bc
9	3 Way Full Rate VIF 7 day	369	a	72 a	19 a	88 a	28 a	68 a	15 a	15 a	18 f	15 d
10	3 Way Full Rate VIF 7 day + 1 day	31	c	23 b	2 b	38 b	6 b	25 b	3 b	3 b	27 de	29 c
11	3 Way Full Rate VIF 14 day	39	c	16 bc	5 b	12 cd	0 b	17 c	5 b	5 b	31 cde	32 abc
12	3 Way Full Rate VIF 14 day + 1 day	27	cd	6 cd	0 b	4 d	0 b	10 cd	0 b	0 b	25 ef	30 bc
LSD (P=.05)		16.0		9.4	6.3	10.1	10.1	7.9	6.9	6.9	7.7	6.2
Standard Deviation		9.4		5.5	3.7	6.0	5.9	4.6	4.1	4.1	4.6	3.7
CV		18.97		45.49	132.85	40.22	148.56	36.01	149.16	149.16	13.81	11.32
Bartlett's X2		44.653		12.155	3.195	7.728	7.578	11.993	0.977	0.977	15.208	8.635
P(Bartlett's X2)		0.001*		0.096	0.526	0.357	0.108	0.101	0.913	0.913	0.173	0.656

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

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Weed Code	plant 3	plant 4	plant 5	plant 6	plant 7	AVG7PLAN	plant 1	plant 2	plant 3	
Crop Code	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES	LYPES	
Rating Data Type	height	height	height	height	height	height	heights	heights	heights	
Rating Unit	cm	cm	cm	cm	cm	cm	cm	cm	cm	
Rating Date							Apr-26-07	Apr-26-07	Apr-26-07	
Assessed By										
Trt-Eval Interval	3WAP	3WAP	3WAP	3WAP	3WAP	3WAP	5 WAP	5 WAP	5 WAP	
ARM Action Codes						T26				
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	
		Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit	
		12	13	14	15	16	17	19	20	21
1	MB 67:33 LDPE (350 lb) 7 day	37 ab	39 a	37 a	36 a	39 a	38 a	53 ab	57 a	63 a
2	MB 67:33 LDPE (350 lb) 7 day + 1 day	39 a	36 ab	32 ab	35 ab	38 ab	37 ab	57 a	54 ab	53 b
3	MB 67:33 LDPE (350 lb) 14 day	36 ab	35 ab	35 ab	37 a	37 abc	37 ab	52 ab	49 abc	51 bc
4	MB 67:33 LDPE (350 lb) 14 day + 1 day	34 abc	35 ab	33 ab	35 ab	36 abc	35 ab	49 abc	51 abc	49 bc
5	3 Way Full Rate LDPE 7 day	32 bcd	31 bc	30 ab	34 ab	36 abc	33 bc	53 ab	50 abc	51 bc
6	3 Way Full Rate LDPE 7 day + 1 day	34 a-d	33 abc	36 ab	32 ab	32 abc	34 abc	51 abc	51 abc	46 bc
7	3 Way Full Rate LDPE 14 day	33 a-d	34 ab	31 ab	32 ab	32 abc	33 bc	48 bc	49 abc	45 bc
8	3 Way Full Rate LDPE 14 day + 1 day	35 ab	36 ab	35 ab	33 ab	31 abc	33 abc	47 bc	49 abc	48 bc
9	3 Way Full Rate VIF 7 day	11 e	15 d	17 c	11 c	10 d	14 e	28 d	28 d	29 d
10	3 Way Full Rate VIF 7 day + 1 day	27 d	27 c	27 b	28 b	30 c	28 d	52 ab	49 abc	47 bc
11	3 Way Full Rate VIF 14 day	28 cd	30 bc	30 ab	30 ab	30 bc	30 cd	43 c	43 c	47 bc
12	3 Way Full Rate VIF 14 day + 1 day	28 cd	32 abc	33 ab	31 ab	32 abc	30 cd	47 bc	48 bc	44 c
LSD (P=.05)		5.7	6.2	8.5	6.8	6.9	4.2	7.7	7.6	7.7
Standard Deviation		3.3	3.7	5.0	4.0	4.1	2.5	4.6	4.5	4.5
CV		10.69	11.54	15.99	12.89	12.75	7.88	9.49	9.39	9.52
Bartlett's X2		10.627	12.236	10.781	14.958	6.622	30.136	16.318	19.826	10.372
P(Bartlett's X2)		0.475	0.346	0.462	0.134	0.761	0.002*	0.13	0.048*	0.497

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

Column 15: T26 = @AVG([C10].[C16])

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Weed Code	plant 4 LYPES	plant 5 LYPES	plant 6 LYPES	plant 7 LYPES	AVG7PLAN LYPES	plant 1 CPSAN	plant 2 CPSAN	plant 3 CPSAN	
Crop Code									
Rating Data Type	heights	heights	heights	heights	heights	height	height	height	
Rating Unit	cm	cm	cm	cm	cm	cm	cm	cm	
Rating Date	Apr-26-07	Apr-26-07	Apr-26-07	Apr-26-07	Apr-26-07				
Assessed By									
Trt-Eval Interval	5 WAP	5 WAP	5 WAP	5 WAP	5 WAP	3WAP	3WAP	3WAP	
ARM Action Codes					T1				
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate	
		Unit							
22			23	24	25	26	28	29	30
1	MB 67:33 LDPE (350 lb) 7 day	52 a	53 a	56 a	52 ab	55 a	22 a	18 ab	19 abc
2	MB 67:33 LDPE (350 lb) 7 day + 1 day	51 a	49 ab	47 ab	56 a	52 ab	23 a	22 a	17 bc
3	MB 67:33 LDPE (350 lb) 14 day	49 a	49 ab	51 ab	52 ab	50 abc	21 a	22 a	24 a
4	MB 67:33 LDPE (350 lb) 14 day + 1 day	48 a	49 ab	48 ab	46 ab	49 bcd	22 a	23 a	22 ab
5	3 Way Full Rate LDPE 7 day	49 a	49 ab	47 ab	50 ab	50 a-d	18 ab	18 ab	16 bc
6	3 Way Full Rate LDPE 7 day + 1 day	51 a	48 ab	48 ab	45 ab	49 bcd	19 ab	20 a	18 bc
7	3 Way Full Rate LDPE 14 day	47 a	48 ab	51 ab	49 ab	48 bcd	20 a	18 ab	17 bc
8	3 Way Full Rate LDPE 14 day + 1 day	50 a	46 ab	44 b	48 ab	47 bcd	23 a	22 a	20 ab
9	3 Way Full Rate VIF 7 day	31 b	36 c	33 c	28 c	30 e	5 c	5 c	5 d
10	3 Way Full Rate VIF 7 day + 1 day	46 a	50 ab	49 ab	43 b	48 bcd	14 b	13 b	13 c
11	3 Way Full Rate VIF 14 day	45 a	44 b	47 ab	41 b	44 d	18 ab	19 ab	19 abc
12	3 Way Full Rate VIF 14 day + 1 day	47 a	45 b	45 b	44 b	46 cd	21 a	20 ab	21 ab
LSD (P=.05)		6.9	7.1	8.6	9.6	5.0	5.0	6.1	5.0
Standard Deviation		4.1	4.2	5.1	5.7	3.0	2.9	3.6	3.0
CV		8.62	8.93	10.77	12.35	6.26	15.59	19.55	16.95
Bartlett's X2		8.38	19.487	10.524	14.221	9.225	14.043	15.074	14.562
P(Bartlett's X2)		0.679	0.053	0.484	0.221	0.601	0.231	0.129	0.203

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

Column 23: T1 = @AVG([C19],[C25])

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Weed Code	plant 4 CPSAN	plant 5 CPSAN	plant 6 CPSAN	plant 7 CPSAN	AVG7PLAN CPSAN	plant 1 CPSAN	plant 2 CPSAN	plant 3 CPSAN
Crop Code								
Rating Data Type	height	height	height	height	height	heights	heights	heights
Rating Unit	cm	cm	cm	cm	cm	cm	cm	cm
Rating Date						Apr-26-07	Apr-26-07	Apr-26-07
Assessed By								
Trt-Eval Interval	3WAP	3WAP	3WAP	3WAP	3WAP	5 WAP	5 WAP	5 WAP
ARM Action Codes					T27			
Trt Treatment								
No. Name								
Rate								
Rate Unit	31	32	33	34	35	37	38	39
1 MB 67:33 LDPE (350 lb) 7 day	23 abc	21 a	21 a	21 a	21 ab	29 a	28 a	29 a
2 MB 67:33 LDPE (350 lb) 7 day + 1 day	20 abc	18 a	20 ab	21 a	20 ab	28 ab	25 ab	26 a
3 MB 67:33 LDPE (350 lb) 14 day	24 ab	21 a	23 a	21 a	22 a	26 abc	28 a	27 a
4 MB 67:33 LDPE (350 lb) 14 day + 1 day	24 a	21 a	23 a	22 a	22 a	28 ab	26 ab	27 a
5 3 Way Full Rate LDPE 7 day	18 c	18 a	15 b	18 ab	17 b	26 abc	25 ab	26 a
6 3 Way Full Rate LDPE 7 day + 1 day	18 bc	19 a	19 ab	19 ab	19 ab	27 ab	25 ab	27 a
7 3 Way Full Rate LDPE 14 day	19 abc	20 a	22 a	22 a	20 ab	24 abc	24 abc	24 a
8 3 Way Full Rate LDPE 14 day + 1 day	22 abc	20 a	18 ab	19 ab	21 ab	23 abc	23 abc	23 a
9 3 Way Full Rate VIF 7 day	3 e	3 c	3 c	0 c	4 d	15 d	16 c	10 b
10 3 Way Full Rate VIF 7 day + 1 day	12 d	11 b	8 c	2 c	11 c	20 cd	17 bc	13 b
11 3 Way Full Rate VIF 14 day	19 abc	18 a	17 ab	20 ab	19 ab	24 abc	24 abc	25 a
12 3 Way Full Rate VIF 14 day + 1 day	20 abc	20 a	18 ab	16 b	19 ab	22 bc	24 abc	23 a
LSD (P=.05)	5.2	4.4	5.1	3.8	3.3	5.6	7.3	8.6
Standard Deviation	3.1	2.6	3.0	2.2	2.0	3.3	4.3	5.1
CV	16.56	14.89	17.47	13.26	11.03	13.71	17.99	21.86
Bartlett's X2	18.23	12.477	17.776	9.426	17.335	9.15	16.958	18.088
P(Bartlett's X2)	0.076	0.329	0.087	0.492	0.098	0.608	0.109	0.08

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

Column 31: T27 = @AVG([C28],[C34])

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Weed Code	plant 4 CPSAN	plant 5 CPSAN	plant 6 CPSAN	plant 7 CPSAN	AVG7LANT CPSAN	plant 1 CUMMC	plant 2 CUMMC	plant 3 CUMMC	
Crop Code									
Rating Data Type	heights	heights	heights	heights	heights	height	height	height	
Rating Unit	cm	cm	cm	cm	cm	cm	cm	cm	
Rating Date	Apr-26-07	Apr-26-07	Apr-26-07	Apr-26-07	Apr-26-07				
Assessed By									
Trt-Eval Interval	5 WAP	5 WAP	5 WAP	5 WAP	5 WAP	3WAP	3WAP	3WAP	
ARM Action Codes					T2				
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate	
		Unit							
40			41	42	43	44	46	47	48
1	MB 67:33 LDPE (350 lb) 7 day	30 a	29 a	28 a	26 a	28 a	30 a-d	29 ab	27 ab
2	MB 67:33 LDPE (350 lb) 7 day + 1 day	24 abc	26 a	25 ab	29 a	26 a	33 ab	32 ab	33 a
3	MB 67:33 LDPE (350 lb) 14 day	27 ab	28 a	29 a	27 a	27 a	34 a	33 a	32 a
4	MB 67:33 LDPE (350 lb) 14 day + 1 day	26 ab	25 a	27 a	27 a	26 a	28 b-e	29 ab	31 a
5	3 Way Full Rate LDPE 7 day	26 ab	26 a	24 ab	25 a	25 a	22 e	25 b	24 ab
6	3 Way Full Rate LDPE 7 day + 1 day	25 ab	24 ab	26 a	26 a	26 a	25 de	27 ab	25 ab
7	3 Way Full Rate LDPE 14 day	24 abc	24 ab	22 ab	25 a	24 a	29 a-d	33 a	31 a
8	3 Way Full Rate LDPE 14 day + 1 day	24 abc	23 ab	24 ab	24 ab	23 a	31 abc	32 ab	32 a
9	3 Way Full Rate VIF 7 day	5 d	8 c	6 c	7 c	10 c	11 f	15 c	12 c
10	3 Way Full Rate VIF 7 day + 1 day	18 c	18 b	18 b	17 b	17 b	22 e	18 c	21 b
11	3 Way Full Rate VIF 14 day	24 abc	23 ab	23 ab	23 ab	24 a	31 a-d	32 ab	28 ab
12	3 Way Full Rate VIF 14 day + 1 day	22 bc	22 ab	24 ab	25 ab	23 a	25 cde	29 ab	25 ab
LSD (P=.05)		6.2	6.0	7.4	7.3	4.9	5.3	6.2	8.5
Standard Deviation		3.6	3.6	4.4	4.3	2.9	3.1	3.6	5.0
CV		15.96	15.44	19.01	18.27	12.49	11.6	13.15	18.77
Bartlett's X2		16.294	11.72	14.757	19.981	20.06	10.885	13.15	25.19
P(Bartlett's X2)		0.131	0.385	0.141	0.046*	0.045*	0.453	0.284	0.009*

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

Column 39: T2 = @AVG([C37],[C43])

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Weed Code	plant 4 CUMMC	plant 5 CUMMC	plant 6 CUMMC	plant 7 CUMMC	AVG7PLAN CUMMC	plant 1 CUMMC	plant 2 CUMMC	plant 3 CUMMC	
Crop Code									
Rating Data Type	height	height	height	height	height	heights	heights	heights	
Rating Unit	cm	cm	cm	cm	cm	cm	cm	cm	
Rating Date						Apr-26-07	Apr-26-07	Apr-26-07	
Assessed By									
Trt-Eval Interval	3WAP	3WAP	3WAP	3WAP	3WAP	5 WAP	5 WAP	5 WAP	
ARM Action Codes					T28				
Trt Treatment	Rate								
No. Name	Rate Unit	49	50	51	52	53	55	56	57
1 MB 67:33 LDPE (350 lb) 7 day		32 a	30 a	31 a	32 ab	30 ab	120 a	124 a	91 abc
2 MB 67:33 LDPE (350 lb) 7 day + 1 day		31 a	32 a	27 ab	34 a	32 a	114 a	105 ab	115 ab
3 MB 67:33 LDPE (350 lb) 14 day		32 a	32 a	30 a	31 ab	32 a	113 a	99 abc	116 a
4 MB 67:33 LDPE (350 lb) 14 day + 1 day		31 a	32 a	30 a	33 a	31 ab	89 ab	86 bcd	94 abc
5 3 Way Full Rate LDPE 7 day		22 d	24 b	22 bc	24 bc	23 cd	107 a	84 bcd	104 abc
6 3 Way Full Rate LDPE 7 day + 1 day		26 bcd	29 a	25 abc	30 ab	27 bc	116 a	90 bc	96 abc
7 3 Way Full Rate LDPE 14 day		29 ab	31 a	32 a	34 a	31 ab	94 a	71 cd	72 bc
8 3 Way Full Rate LDPE 14 day + 1 day		30 ab	31 a	32 a	32 ab	31 ab	102 a	90 bc	82 abc
9 3 Way Full Rate VIF 7 day		14 e	13 d	10 d	9 d	12 e	45 b	57 d	62 c
10 3 Way Full Rate VIF 7 day + 1 day		24 cd	19 c	19 c	20 c	20 d	95 a	82 bcd	76 abc
11 3 Way Full Rate VIF 14 day		27 abc	24 b	27 ab	28 ab	28 ab	90 ab	92 bc	84 abc
12 3 Way Full Rate VIF 14 day + 1 day		28 abc	31 a	32 a	29 ab	28 ab	81 ab	73 cd	82 abc
LSD (P=.05)		4.6	4.8	6.8	7.2	4.2	42.0	27.1	37.6
Standard Deviation		2.7	2.8	4.0	4.3	2.5	24.8	16.0	22.2
CV		10.05	10.37	15.29	15.22	9.05	25.53	18.28	24.83
Bartlett's X2		14.309	14.568	21.44	27.324	40.28	20.232	4.57	16.306
P(Bartlett's X2)		0.216	0.203	0.029*	0.002*	0.001*	0.042*	0.95	0.13

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

Column 47: T28 = @AVG([C46],[C52])

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Weed Code	plant 4	plant 5	plant 6	plant 7	AVG7PLAN	LYPES	LYPES	AVGPLANT	
Crop Code	CUMMC	CUMMC	CUMMC	CUMMC	CUMMC	LYPES	LYPES	LYPES	
Rating Data Type	heights	heights	heights	heights	heights	plant	biomass	biomass	
Rating Unit	cm	cm	cm	cm	cm	#/plot	wt/lbs g	gram/pla	
Rating Date	Apr-26-07	Apr-26-07	Apr-26-07	Apr-26-07	Apr-26-07				
Assessed By	5 WAP	5 WAP	5 WAP	5 WAP	5 WAP	3WAP	3WAP	3WAP	
Trt-Eval Interval									
ARM Action Codes					T3			T29	
Trt Treatment	Rate								
No. Name	Rate Unit	58	59	60	61	62	64	65	66
1 MB 67:33 LDPE (350 lb) 7 day		100 ab	106 a	104 a	98 a	106 a	44 a	119 abc	3 bcd
2 MB 67:33 LDPE (350 lb) 7 day + 1 day		96 abc	100 ab	105 a	103 a	105 a	37 b	139 a	4 ab
3 MB 67:33 LDPE (350 lb) 14 day		82 abc	90 abc	86 ab	88 a	96 abc	37 b	147 a	4 a
4 MB 67:33 LDPE (350 lb) 14 day + 1 day		83 abc	97 ab	71 bc	95 a	88 abc	34 bcd	122 ab	4 ab
5 3 Way Full Rate LDPE 7 day		124 a	86 abc	100 ab	103 a	101 ab	37 b	61 c	2 d
6 3 Way Full Rate LDPE 7 day + 1 day		73 bc	90 abc	92 ab	106 a	95 abc	33 bcd	74 bc	2 cd
7 3 Way Full Rate LDPE 14 day		99 ab	66 cd	94 ab	79 a	82 bc	33 bcd	110 abc	3 abc
8 3 Way Full Rate LDPE 14 day + 1 day		83 abc	75 bcd	76 abc	78 a	84 bc	35 bc	101 abc	3 a-d
9 3 Way Full Rate VIF 7 day		53 c	58 d	51 c	29 b	51 d	15 e	7 d	0 e
10 3 Way Full Rate VIF 7 day + 1 day		78 bc	81 a-d	87 ab	84 a	83 bc	31 bcd	62 bc	2 d
11 3 Way Full Rate VIF 14 day		89 abc	79 a-d	93 ab	73 a	86 abc	30 cd	69 bc	2 cd
12 3 Way Full Rate VIF 14 day + 1 day		79 abc	74 bcd	77 abc	83 a	78 c	29 d	70 bc	2 bcd
LSD (P=.05)		39.9	24.1	28.5	30.0	18.4	5.3	52.2	1.1
Standard Deviation		23.6	14.2	16.8	17.7	10.8	3.1	30.8	0.7
CV		27.24	16.98	19.45	20.86	12.32	9.47	34.15	25.78
Bartlett's X2		20.138	10.452	12.042	5.114	12.409	18.282	25.067	20.439
P(Bartlett's X2)		0.043*	0.49	0.36	0.926	0.334	0.075	0.009*	0.04*

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

Column 55: T3 = @AVG([C55],[C61])

Column 58: T29 = [C65]/[C64]

University of Georgia

Weed Code	CSPAN	CSPAN	AVGPLANT	CUMMC	CUMMC	AVGPLANT	harv 1	harv 1	
Crop Code	plant	biomass	CPSAN	plant	biomass	CUMMC	LYPES	LYPES	
Rating Data Type	#/plot	wt/lbs g	biomass	#/plot	wt/lbs g	biomass	jumbo	jumbo	
Rating Unit			gram/pla			gram/pla	#	wt/lbs	
Rating Date							May-18-07	May-18-07	
Assessed By									
Trt-Eval Interval	3WAP	3WAP	3WAP	3WAP	3WAP	3WAP	64 DA-A	64 DA-A	
ARM Action Codes			T30			T31			
Trt Treatment	Rate								
No. Name	Rate Unit	68	69	70	72	73	74	76	77
1 MB 67:33 LDPE (350 lb) 7 day	20 abc	16 ab	1 a	30 bc	66 cd	2 cd	28 ab	14 ab	
2 MB 67:33 LDPE (350 lb) 7 day + 1 day	20 abc	13 bc	1 abc	32 bc	75 bc	2 bc	29 ab	15 a	
3 MB 67:33 LDPE (350 lb) 14 day	21 ab	17 a	1 ab	40 a	111 a	3 a	33 a	14 abc	
4 MB 67:33 LDPE (350 lb) 14 day + 1 day	22 a	13 abc	1 bc	29 bcd	75 bc	3 ab	27 ab	11 a-d	
5 3 Way Full Rate LDPE 7 day	17 bc	7 de	0 cde	23 de	36 ef	2 ef	26 ab	10 b-e	
6 3 Way Full Rate LDPE 7 day + 1 day	19 abc	10 cd	1 cd	26 cde	48 de	2 de	21 bc	9 de	
7 3 Way Full Rate LDPE 14 day	19 abc	11 cd	1 c	34 ab	93 ab	3 a	26 ab	10 b-e	
8 3 Way Full Rate LDPE 14 day + 1 day	20 abc	11 cd	1 c	26 cde	60 cd	2 c	24 abc	10 cde	
9 3 Way Full Rate VIF 7 day	7 e	2 f	0 e	11 f	7 g	1 g	4 d	1 f	
10 3 Way Full Rate VIF 7 day + 1 day	13 d	4 ef	0 de	20 e	27 f	1 f	15 c	6 e	
11 3 Way Full Rate VIF 14 day	19 abc	10 cd	1 cd	28 bcd	59 cd	2 cd	20 bc	8 de	
12 3 Way Full Rate VIF 14 day + 1 day	16 cd	9 cd	1 abc	29 bcd	57 cde	2 cd	21 bc	8 de	
LSD (P=.05)	3.8	3.8	0.2	6.2	20.2	0.4	9.0	3.8	
Standard Deviation	2.2	2.3	0.1	3.7	11.9	0.2	5.3	2.2	
CV	12.55	21.92	21.33	13.31	20.05	10.81	23.12	23.25	
Bartlett's X2	19.247	10.007	22.545	8.837	26.163	10.868	6.351	9.64	
P(Bartlett's X2)	0.037*	0.44	0.02*	0.548	0.006*	0.454	0.849	0.563	

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

Column 61: T30 = [C69]/[C68]

Column 64: T31 = [C73]/[C72]

University of Georgia

Weed Code	harv 2 LYPES	harv 2 LYPES	harv 2 LYPES	harv 2 LYPES	harv 2 LYPES	harv 2 LYPES	harv 2 LYPES
Crop Code	jumbo	jumbo	large	large	medium	medium	small
Rating Data Type	#	wt/lbs	#	wt/lbs	#	wt/lbs	#
Rating Unit	May-25-07	May-25-07	May-25-07	May-25-07	May-25-07	May-25-07	May-25-07
Rating Date	71 DA-A	71 DA-A	71 DA-A	71 DA-A	71 DA-A	71 DA-A	71 DA-A
Assessed By							
Trt-Eval Interval							
ARM Action Codes							
Trt Treatment	Rate	Rate	Rate	Rate	Rate	Rate	Rate
No. Name	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit
1 MB 67:33 LDPE (350 lb) 7 day	2 abc	1 abc	4 a	1 a	3 abc	1 abc	1 a
2 MB 67:33 LDPE (350 lb) 7 day + 1 day	2 abc	1 abc	4 a	1 a	0 c	0 c	0 a
3 MB 67:33 LDPE (350 lb) 14 day	2 abc	1 abc	2 a	1 a	2 abc	1 abc	0 a
4 MB 67:33 LDPE (350 lb) 14 day + 1 day	4 abc	2 abc	3 a	1 a	3 abc	1 abc	1 a
5 3 Way Full Rate LDPE 7 day	3 abc	1 abc	1 a	0 a	2 abc	1 abc	0 a
6 3 Way Full Rate LDPE 7 day + 1 day	4 abc	2 abc	4 a	1 a	3 ab	1 abc	2 a
7 3 Way Full Rate LDPE 14 day	5 a	2 a	4 a	1 a	2 abc	0 abc	1 a
8 3 Way Full Rate LDPE 14 day + 1 day	3 abc	1 abc	4 a	1 a	3 ab	1 ab	1 a
9 3 Way Full Rate VIF 7 day	0 c	0 c	1 a	0 a	1 bc	0 bc	0 a
10 3 Way Full Rate VIF 7 day + 1 day	4 ab	2 ab	5 a	2 a	3 abc	1 abc	1 a
11 3 Way Full Rate VIF 14 day	2 abc	1 abc	5 a	1 a	4 a	1 a	1 a
12 3 Way Full Rate VIF 14 day + 1 day	1 bc	0 bc	5 a	2 a	2 abc	0 abc	1 a
LSD (P=.05)	3.5	1.6	3.6	1.2	2.6	0.7	1.6
Standard Deviation	2.1	0.9	2.1	0.7	1.5	0.4	0.9
CV	81.14	82.36	61.54	64.08	63.7	73.54	143.96
Bartlett's X2	11.101	12.045	14.565	14.02	12.016	20.272	7.91
P(Bartlett's X2)	0.35	0.282	0.203	0.232	0.212	0.027*	0.543

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

University of Georgia

Weed Code	harv 2 LYPES	harv 3 LYPES	harv 3 LYPES	harv 3 LYPES	harv 3 LYPES	harv 3 LYPES	harv 3 LYPES	
Crop Code	small	jumbo	jumbo	large	large	medium	medium	
Rating Data Type	wt/lbs	#	wt/lbs	#	wt/lbs	#	wt/lbs	
Rating Unit	May-25-07	Jun-01-07	Jun-01-07	Jun-01-07	Jun-01-07	Jun-01-07	Jun-01-07	
Rating Date	71 DA-A	78 DA-A	78 DA-A	78 DA-A	78 DA-A	78 DA-A	78 DA-A	
Assessed By								
Trt-Eval Interval								
ARM Action Codes								
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	
		Unit	Unit	Unit	Unit	Unit	Unit	
		85	86	87	88	89	90	
							91	
1	MB 67:33 LDPE (350 lb) 7 day	0 ab	5 ab	2 ab	4 bcd	2 bcd	2 b	0 b
2	MB 67:33 LDPE (350 lb) 7 day + 1 day	0 b	6 a	3 a	7 abc	3 abc	2 b	1 ab
3	MB 67:33 LDPE (350 lb) 14 day	0 ab	7 a	3 a	6 a-d	2 a-d	4 ab	1 ab
4	MB 67:33 LDPE (350 lb) 14 day + 1 day	0 ab	7 a	4 a	3 cd	1 cd	2 ab	1 ab
5	3 Way Full Rate LDPE 7 day	0 b	4 ab	2 ab	8 ab	3 ab	5 ab	1 ab
6	3 Way Full Rate LDPE 7 day + 1 day	0 a	6 a	3 a	5 bcd	2 bcd	6 a	2 a
7	3 Way Full Rate LDPE 14 day	0 ab	5 ab	2 ab	6 a-d	2 a-d	2 b	1 ab
8	3 Way Full Rate LDPE 14 day + 1 day	0 ab	4 ab	2 ab	3 cd	1 cd	2 ab	1 ab
9	3 Way Full Rate VIF 7 day	0 ab	1 b	0 b	2 d	1 d	2 b	1 ab
10	3 Way Full Rate VIF 7 day + 1 day	0 ab	5 ab	3 ab	10 a	4 a	2 ab	1 ab
11	3 Way Full Rate VIF 14 day	0 ab	3 ab	2 ab	6 a-d	2 a-d	3 ab	1 ab
12	3 Way Full Rate VIF 14 day + 1 day	0 ab	4 ab	2 ab	8 ab	3 ab	6 a	2 a
LSD (P=.05)		0.2	4.3	2.1	3.9	1.4	3.1	0.9
Standard Deviation		0.1	2.6	1.2	2.3	0.8	1.8	0.5
CV		148.77	55.01	54.44	41.57	38.23	58.24	57.85
Bartlett's X2		7.051	8.813	10.12	11.894	12.165	8.049	9.654
P(Bartlett's X2)		0.632	0.639	0.52	0.372	0.351	0.709	0.562

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

University of Georgia

Weed Code	harv 3 LYPES	harv 3 LYPES	harv 4 LYPES	harv 4 LYPES	harv 4 LYPES	harv 4 LYPES	harv 4 LYPES
Crop Code	small	small	jumbo	jumbo	large	large	medium
Rating Data Type	#	wt/lbs	#	wt/lbs	#	wt/lbs	#
Rating Unit	Jun-01-07	Jun-01-07	Jun-08-07	Jun-08-07	Jun-08-07	Jun-08-07	Jun-08-07
Rating Date	78 DA-A	78 DA-A	85 DA-A	85 DA-A	85 DA-A	85 DA-A	85 DA-A
Assessed By							
Trt-Eval Interval							
ARM Action Codes							
Trt Treatment	Rate	Rate	Rate	Rate	Rate	Rate	Rate
No. Name	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit
1 MB 67:33 LDPE (350 lb) 7 day	1 ab	0 ab	29 a	15 a	12 a	5 a	4 a
2 MB 67:33 LDPE (350 lb) 7 day + 1 day	0 b	0 b	25 ab	13 ab	8 ab	3 abc	1 a
3 MB 67:33 LDPE (350 lb) 14 day	0 ab	0 b	19 abc	10 abc	4 b	1 bc	1 a
4 MB 67:33 LDPE (350 lb) 14 day + 1 day	1 ab	0 ab	15 bc	8 bc	5 ab	2 abc	1 a
5 3 Way Full Rate LDPE 7 day	2 a	0 a	21 abc	11 abc	12 ab	4 abc	4 a
6 3 Way Full Rate LDPE 7 day + 1 day	1 ab	0 ab	15 bc	7 bcd	10 ab	4 abc	4 a
7 3 Way Full Rate LDPE 14 day	1 ab	0 ab	12 cd	6 cd	12 ab	5 ab	2 a
8 3 Way Full Rate LDPE 14 day + 1 day	0 ab	0 ab	15 bc	7 bcd	8 ab	3 abc	1 a
9 3 Way Full Rate VIF 7 day	1 ab	0 ab	3 d	1 d	4 b	1 c	3 a
10 3 Way Full Rate VIF 7 day + 1 day	1 ab	0 ab	16 bc	8 bc	12 ab	4 abc	2 a
11 3 Way Full Rate VIF 14 day	1 ab	0 ab	9 cd	5 cd	8 ab	3 abc	2 a
12 3 Way Full Rate VIF 14 day + 1 day	1 ab	0 ab	10 cd	5 cd	9 ab	4 abc	2 a
LSD (P=.05)	1.8	0.3	10.5	5.6	7.2	2.8	3.4
Standard Deviation	1.1	0.2	6.2	3.3	4.3	1.6	2.0
CV	103.95	102.39	39.4	41.06	49.64	50.64	89.81
Bartlett's X2	9.762	8.973	17.248	17.105	15.598	16.516	19.163
P(Bartlett's X2)	0.462	0.535	0.101	0.105	0.157	0.123	0.058

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

University of Georgia

Weed Code	harv 4 LYPES	harv 4 LYPES	harv 4 LYPES	harv 5 LYPES	harv 5 LYPES	harv 5 LYPES	harv 5 LYPES
Crop Code	medium	small	small	jumbo	jumbo	large	large
Rating Data Type	wt/lbs	#	wt/lbs	#	wt/lbs	#	wt/lbs
Rating Unit	Jun-08-07	Jun-08-07	Jun-08-07	Jun-11-07	Jun-11-07	Jun-11-07	Jun-11-07
Rating Date	85 DA-A	85 DA-A	85 DA-A	88 DA-A	88 DA-A	88 DA-A	88 DA-A
Assessed By	ARM Action Codes						
Trt-Eval Interval	Trt Treatment						
ARM Action Codes	Rate						
Trt No.	99	100	101	102	103	104	105
Treatment Name	Rate Unit						
1 MB 67:33 LDPE (350 lb) 7 day	1 a	1 a	0 a	64 a	36 ab	31 def	11 cde
2 MB 67:33 LDPE (350 lb) 7 day + 1 day	0 a	1 a	0 a	56 a	31 ab	44 a-d	15 bcd
3 MB 67:33 LDPE (350 lb) 14 day	0 a	0 a	0 a	80 a	40 ab	27 f	9 e
4 MB 67:33 LDPE (350 lb) 14 day + 1 day	0 a	1 a	0 a	81 a	45 a	33 c-f	13 b-e
5 3 Way Full Rate LDPE 7 day	1 a	2 a	0 a	74 a	37 ab	33 c-f	12 b-e
6 3 Way Full Rate LDPE 7 day + 1 day	1 a	1 a	0 a	87 a	41 ab	35 b-f	11 cde
7 3 Way Full Rate LDPE 14 day	0 a	1 a	0 a	85 a	44 a	29 ef	10 de
8 3 Way Full Rate LDPE 14 day + 1 day	0 a	1 a	0 a	81 a	44 a	48 ab	17 ab
9 3 Way Full Rate VIF 7 day	1 a	1 a	0 a	47 a	21 b	46 abc	15 bcd
10 3 Way Full Rate VIF 7 day + 1 day	1 a	1 a	0 a	58 a	31 ab	58 a	21 a
11 3 Way Full Rate VIF 14 day	1 a	1 a	0 a	80 a	36 ab	42 b-e	12 b-e
12 3 Way Full Rate VIF 14 day + 1 day	0 a	2 a	0 a	84 a	42 ab	47 abc	16 abc
LSD (P=.05)	0.9	1.7	0.3	37.3	19.1	12.4	5.1
Standard Deviation	0.6	1.0	0.2	22.0	11.3	7.3	3.0
CV	91.84	97.1	100.89	30.11	30.19	18.53	22.23
Bartlett's X2	17.018	7.289	5.948	14.21	10.456	6.275	6.226
P(Bartlett's X2)	0.107	0.775	0.877	0.222	0.49	0.854	0.858

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

University of Georgia

Weed Code	harv 5 LYPES	harv 5 LYPES	harv 5 LYPES	harv 5 LYPES	harv1-3 LYPES	harv1-3 LYPES	harv1-5 LYPES	harv1-5 LYPES	harv2-3 LYPES
Crop Code	medium	medium	small	small	jumbo	jumbo	jumbo	jumbo	large
Rating Data Type	#	wt/lbs	#	wt/lbs	#	wt/lbs	#	wt/lbs	#
Rating Unit	#	wt/lbs	#	wt/lbs	#	wt/lbs	#	wt/lbs	#
Rating Date	Jun-11-07	Jun-11-07	Jun-11-07	Jun-11-07					
Assessed By									
Trt-Eval Interval	88 DA-A	88 DA-A	88 DA-A	88 DA-A					
ARM Action Codes					T5	T6	T4	T7	T8
Trt No.	106	107	108	109	110	111	112	113	114
Treatment Name									
Rate									
Unit									
1 MB 67:33 LDPE (350 lb) 7 day	37 b	9 b	95 a	13 a	35 a-d	17 ab	127 a	69 a	8 bcd
2 MB 67:33 LDPE (350 lb) 7 day + 1 day	33 b	8 b	88 ab	11 ab	36 ab	18 a	117 a	63 a	10 abc
3 MB 67:33 LDPE (350 lb) 14 day	30 b	7 b	55 ab	7 ab	43 a	18 a	142 a	68 a	8 bcd
4 MB 67:33 LDPE (350 lb) 14 day + 1 day	29 b	7 b	47 ab	7 ab	38 ab	16 ab	134 a	69 a	6 cd
5 3 Way Full Rate LDPE 7 day	37 b	9 b	60 ab	9 ab	32 bcd	13 bcd	127 a	61 a	9 abc
6 3 Way Full Rate LDPE 7 day + 1 day	36 b	7 b	64 ab	7 ab	31 bcd	13 bcd	133 a	62 a	8 bcd
7 3 Way Full Rate LDPE 14 day	40 ab	9 b	73 ab	11 ab	35 abc	15 abc	133 a	64 a	10 abc
8 3 Way Full Rate LDPE 14 day + 1 day	34 b	8 b	39 b	6 b	31 bcd	13 bcd	127 a	65 a	7 cd
9 3 Way Full Rate VIF 7 day	56 a	14 ab	86 ab	13 a	5 e	2 e	55 b	24 b	3 d
10 3 Way Full Rate VIF 7 day + 1 day	43 ab	10 ab	87 ab	12 ab	25 d	11 cd	99 a	50 a	15 a
11 3 Way Full Rate VIF 14 day	33 b	7 b	48 ab	7 ab	25 cd	10 cd	114 a	51 a	10 abc
12 3 Way Full Rate VIF 14 day + 1 day	37 b	19 a	50 ab	8 ab	25 cd	10 d	119 a	56 a	13 ab
LSD (P=.05)	15.6	9.3	43.3	5.6	9.0	4.2	41.5	21.4	5.3
Standard Deviation	9.2	5.5	25.6	3.3	5.3	2.5	24.5	12.7	3.1
CV	24.82	58.01	38.67	35.48	17.61	19.2	20.61	21.61	34.44
Bartlett's X2	7.853	54.019	8.43	6.749	22.354	18.229	4.741	5.925	10.738
P(Bartlett's X2)	0.726	0.001*	0.674	0.819	0.022*	0.076	0.943	0.878	0.465

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

Column 99: T5 = ([C76]+[C78]+[C86])

Column 100: T6 = ([C77]+[C79]+[C87])

Column 101: T4 = ([C76]+[C78]+[C86]+[C94]+[C102])

Column 102: T7 = ([C77]+[C79]+[C87]+[C95]+[C103])

Column 103: T8 = ([C80]+[C88])

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Weed Code	harv2-3 LYPES	harv2-5 LYPES	harv2-5 LYPES	harv2-3 LYPES	harv2-3 LYPES	harv2-5 LYPES	harv2-5 LYPES	harv2-3 LYPES	harv2-3 LYPES
Crop Code	large	large	large	medium	medium	medium	medium	small	small
Rating Data Type	wt/lbs	#	wt/lbs	#	wt/lbs	#	wt/lbs	#	wt/lbs
Rating Unit									
Rating Date									
Assessed By									
Trt-Eval Interval									
ARM Action Codes	T9	T10	T11	T12	T13	T14	T15	T16	T17
Trt Treatment									
No. Name									
Rate									
Rate Unit									
1 MB 67:33 LDPE (350 lb) 7 day	3 bc	51 cde	18 bc	4 abc	1 abc	45 ab	11 b	1 ab	0 ab
2 MB 67:33 LDPE (350 lb) 7 day + 1 day	3 ab	63 bc	21 b	2 c	1 c	36 b	9 b	0 b	0 b
3 MB 67:33 LDPE (350 lb) 14 day	3 bc	39 e	13 c	6 abc	2 abc	38 b	9 b	1 ab	0 b
4 MB 67:33 LDPE (350 lb) 14 day + 1 day	3 bc	44 de	17 bc	5 abc	1 abc	35 b	9 b	2 ab	0 ab
5 3 Way Full Rate LDPE 7 day	4 ab	54 b-e	20 b	7 ab	2 abc	48 ab	12 ab	2 ab	0 ab
6 3 Way Full Rate LDPE 7 day + 1 day	3 ab	53 b-e	18 bc	9 a	2 a	49 ab	10 b	3 a	1 a
7 3 Way Full Rate LDPE 14 day	5 ab	51 cde	19 bc	4 abc	1 abc	46 ab	10 b	2 ab	0 ab
8 3 Way Full Rate LDPE 14 day + 1 day	3 bc	62 bcd	23 b	6 abc	2 abc	41 b	10 b	1 ab	0 ab
9 3 Way Full Rate VIF 7 day	1 c	53 b-e	17 bc	3 bc	1 bc	62 a	15 ab	1 ab	0 ab
10 3 Way Full Rate VIF 7 day + 1 day	6 a	84 a	31 a	5 abc	1 abc	51 ab	12 ab	2 ab	0 ab
11 3 Way Full Rate VIF 14 day	3 bc	61 bcd	18 bc	7 ab	2 abc	43 b	10 b	2 ab	0 ab
12 3 Way Full Rate VIF 14 day + 1 day	3 ab	70 ab	23 b	8 ab	2 ab	47 ab	22 a	2 ab	0 ab
LSD (P=.05)	2.1	15.9	5.7	4.5	1.2	15.2	9.4	2.3	0.4
Standard Deviation	1.2	9.4	3.3	2.6	0.7	9.0	5.6	1.4	0.2
CV	37.44	16.39	16.77	47.3	48.58	19.92	48.19	83.07	79.2
Bartlett's X2	13.31	14.059	12.217	9.084	12.964	3.279	47.695	8.712	5.644
P(Bartlett's X2)	0.274	0.23	0.348	0.524	0.296	0.987	0.001*	0.56	0.844

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

Column 104: T9 = ([C79]+[C89])

Column 105: T10 = ([C80]+[C88]+[C96]+[C104])

Column 106: T11 = ([C79]+[C89]+[C97]+[C105])

Column 107: T12 = ([C82]+[C90])

Column 108: T13 = ([C83]+[C91])

Column 109: T14 = ([C82]+[C90]+[C98]+[C106])

Column 110: T15 = ([C83]+[C91]+[C99]+[C107])

Column 111: T16 = ([C84]+[C92])

Column 112: T17 = ([C85]+[C93])

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Weed Code	harv2-5 LYPES	harv2-5 LYPES	Total LYPES	Total LYPES	harv 1 CPSAN	harv 1 CPSAN	harv 2 CPSAN	harv 2 CPSAN	Total CPSAN
Crop Code	small	small	fruit	fruit	jumbo	jumbo	jumbo	jumbo	fruit
Rating Data Type	#	wt/lbs	#/plot	lb/plot	#	wt/lbs	#	wt/lbs	#
Rating Unit									
Rating Date					May-28-07	May-28-07	Jun-25-07	Jun-25-07	
Assessed By									
Trt-Eval Interval					74 DA-A	74 DA-A	102 DA-A	102 DA-A	
ARM Action Codes	T18	T19	T32	T33					T20
Trt Treatment	Rate								
No. Name	Rate	Unit							
1 MB 67:33 LDPE (350 lb) 7 day	97 a	13 a	320 a	111 a	111 a	24 a	116 a	25 a	227 a
2 MB 67:33 LDPE (350 lb) 7 day + 1 day	89 ab	11 ab	305 a	104 a	107 a	21 ab	105 a	27 a	212 ab
3 MB 67:33 LDPE (350 lb) 14 day	56 ab	7 ab	275 a	97 a	102 a	18 abc	118 a	26 a	220 a
4 MB 67:33 LDPE (350 lb) 14 day + 1 day	50 ab	8 ab	263 a	103 a	102 a	18 abc	102 a	23 a	204 ab
5 3 Way Full Rate LDPE 7 day	64 ab	10 ab	294 a	103 a	98 a	17 bc	98 a	23 a	195 ab
6 3 Way Full Rate LDPE 7 day + 1 day	68 ab	8 ab	302 a	98 a	100 a	16 bc	94 a	23 a	194 ab
7 3 Way Full Rate LDPE 14 day	76 ab	11 ab	306 a	105 a	97 a	17 bc	93 a	23 a	190 ab
8 3 Way Full Rate LDPE 14 day + 1 day	41 b	6 b	272 a	104 a	93 a	15 c	109 a	27 a	202 ab
9 3 Way Full Rate VIF 7 day	88 ab	13 a	257 a	70 b	32 b	5 e	82 a	21 a	114 c
10 3 Way Full Rate VIF 7 day + 1 day	91 ab	13 a	325 a	106 a	50 b	9 de	109 a	24 a	159 bc
11 3 Way Full Rate VIF 14 day	51 ab	7 ab	269 a	86 ab	90 a	14 c	99 a	23 a	188 ab
12 3 Way Full Rate VIF 14 day + 1 day	54 ab	8 ab	290 a	110 a	87 a	13 cd	103 a	22 a	190 ab
LSD (P=.05)	43.6	5.6	69.3	25.1	26.6	5.1	34.6	9.5	52.9
Standard Deviation	25.7	3.3	40.9	14.8	15.7	3.0	20.4	5.6	31.2
CV	37.38	33.86	14.11	14.86	17.61	19.33	19.98	23.54	16.33
Bartlett's X2	8.918	6.903	8.634	12.933	13.787	10.116	7.552	8.393	11.562
P(Bartlett's X2)	0.629	0.807	0.656	0.298	0.245	0.52	0.753	0.678	0.397

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

Column 113: T18 = ([C84]+[C92]+[C100]+[C108])

Column 114: T19 = ([C85]+[C93]+[C101]+[C109])

Column 115: T32 = [C112]+[C116]+[C120]+[C124]

Column 116: T33 = [C113]+[C117]+[C121]+[C125]

Column 121: T20 = ([C129]+[C131])

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Weed Code	Total CPSAN	harv 1 CUMMC	harv 1 CUMMC	harv 2 CUMMC	harv 2 CUMMC	harv 3 CUMMC	harv 3 CUMMC	harv 4 CUMMC
Crop Code	fruit	fruit	fruit	fruit	fruit	fruit	fruit	fruit
Rating Data Type	wt/lbs	#	lb/plot	#/plot	lb/plot	#	lb/plot	#/plot
Rating Unit		May-18-07	May-18-07	May-25-07	May-25-07	May-28-07	May-28-07	Jun-01-07
Rating Date		64 DA-A	64 DA-A	71 DA-A	71 DA-A	74 DA-A	74 DA-A	78 DA-A
Assessed By								
Trt-Eval Interval								
ARM Action Codes	T21							
Trt Treatment	Rate							
No. Name	Rate Unit	134	136	137	138	139	140	141
134	136	137	138	139	140	141	142	
1 MB 67:33 LDPE (350 lb) 7 day	49 a	1 bc	1 bc	2 a	3 a	2 a	5 a	2 a
2 MB 67:33 LDPE (350 lb) 7 day + 1 day	48 ab	2 b	3 bc	1 a	3 a	1 a	4 a	1 a
3 MB 67:33 LDPE (350 lb) 14 day	45 ab	3 a	7 a	1 a	2 a	1 a	3 a	3 a
4 MB 67:33 LDPE (350 lb) 14 day + 1 day	41 abc	1 bc	2 bc	2 a	3 a	0 a	0 a	1 a
5 3 Way Full Rate LDPE 7 day	40 abc	1 bc	2 bc	1 a	2 a	1 a	1 a	2 a
6 3 Way Full Rate LDPE 7 day + 1 day	39 abc	1 bc	1 bc	2 a	3 a	0 a	0 a	1 a
7 3 Way Full Rate LDPE 14 day	39 abc	2 b	3 b	3 a	5 a	0 a	1 a	2 a
8 3 Way Full Rate LDPE 14 day + 1 day	42 ab	1 bc	1 bc	1 a	2 a	1 a	2 a	1 a
9 3 Way Full Rate VIF 7 day	26 c	0 c	0 c	0 a	0 a	1 a	1 a	2 a
10 3 Way Full Rate VIF 7 day + 1 day	33 bc	0 c	0 c	0 a	0 a	1 a	1 a	1 a
11 3 Way Full Rate VIF 14 day	37 abc	0 c	0 c	3 a	5 a	1 a	1 a	3 a
12 3 Way Full Rate VIF 14 day + 1 day	36 abc	0 bc	0 bc	2 a	4 a	0 a	1 a	3 a
LSD (P=.05)	13.4	1.4	2.3	2.7	4.7	2.2	4.9	2.0
Standard Deviation	7.9	0.8	1.4	1.6	2.8	1.3	2.9	1.2
CV	19.98	87.54	89.82	103.13	109.47	155.27	179.2	65.1
Bartlett's X2	8.103	3.005	5.446	4.518	13.754	10.322	18.554	7.328
P(Bartlett's X2)	0.704	0.934	0.709	0.808	0.131	0.325	0.046*	0.603

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

Column 122: T21 = ([C130]+[C132])

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Weed Code	harv 4 CUMMC	harv 5 CUMMC	harv 5 CUMMC	harv 6 CUMMC	harv 6 CUMMC	harv 7 CUMMC	harv 7 CUMMC
Crop Code	fruit	fruit	fruit	fruit	fruit	fruit	fruit
Rating Data Type	lb/plot	#	lb/plot	#/plot	lb/plot	#	lb/plot
Rating Unit	lb/plot	#	lb/plot	#/plot	lb/plot	#	lb/plot
Rating Date	Jun-01-07	Jun-04-07	Jun-04-07	Jun-08-07	Jun-08-07	Jun-11-07	Jun-11-07
Assessed By	78 DA-A	81 DA-A	81 DA-A	85 DA-A	85 DA-A	88 DA-A	88 DA-A
Trt-Eval Interval	78 DA-A	81 DA-A	81 DA-A	85 DA-A	85 DA-A	88 DA-A	88 DA-A
ARM Action Codes							
Trt Treatment							
No. Name							
Rate	143	144	145	146	147	148	149
Rate Unit							
1 MB 67:33 LDPE (350 lb) 7 day	5 ab	8 ab	29 abc	11 a	37 a	4 ab	16 ab
2 MB 67:33 LDPE (350 lb) 7 day + 1 day	2 b	7 ab	22 bc	9 ab	35 ab	4 ab	16 ab
3 MB 67:33 LDPE (350 lb) 14 day	9 ab	10 ab	36 ab	5 ab	19 a-d	3 ab	10 ab
4 MB 67:33 LDPE (350 lb) 14 day + 1 day	4 ab	10 ab	34 abc	9 ab	32 ab	2 ab	9 b
5 3 Way Full Rate LDPE 7 day	4 ab	7 ab	14 bc	3 b	7 d	2 b	8 b
6 3 Way Full Rate LDPE 7 day + 1 day	2 b	5 b	12 c	4 b	10 cd	2 b	4 b
7 3 Way Full Rate LDPE 14 day	5 ab	10 ab	32 abc	8 ab	25 a-d	4 ab	11 ab
8 3 Way Full Rate LDPE 14 day + 1 day	4 ab	8 ab	24 abc	6 ab	20 a-d	7 a	26 a
9 3 Way Full Rate VIF 7 day	5 ab	7 ab	23 abc	3 b	14 bcd	1 b	5 b
10 3 Way Full Rate VIF 7 day + 1 day	4 ab	14 a	46 a	8 ab	29 abc	1 b	3 b
11 3 Way Full Rate VIF 14 day	10 a	10 ab	36 ab	5 ab	19 a-d	5 ab	16 ab
12 3 Way Full Rate VIF 14 day + 1 day	10 a	9 ab	32 abc	8 ab	32 ab	1 b	6 b
LSD (P=.05)	6.1	6.8	20.2	5.4	18.7	4.2	14.6
Standard Deviation	3.6	4.0	11.9	3.2	11.0	2.5	8.7
CV	68.13	45.77	41.99	47.91	47.55	81.08	79.85
Bartlett's X2	13.771	9.235	9.746	12.881	17.689	15.34	18.733
P(Bartlett's X2)	0.246	0.60	0.553	0.23	0.089	0.167	0.066

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

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Weed Code	harv 8 CUMMC	harv 8 CUMMC	harv 9 CUMMC	harv 9 CUMMC	harv1-3 CUMMC	harv1-3 CUMMC	harv1-9 CUMMC	harv1-9 CUMMC
Crop Code	fruit	fruit	fruit	fruit	fruit	fruit	fruit	fruit
Rating Data Type	#	lb/plot	#/plot	lb/plot	#	lb/plot	#/plot	lb/plot
Rating Unit								
Rating Date	Jun-14-07	Jun-14-07	Jun-18-07	Jun-18-07				
Assessed By	91 DA-A	91 DA-A	95 DA-A	95 DA-A				
Trt-Eval Interval								
ARM Action Codes					T22	T23	T24	T25
Trt Treatment	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate
No. Name	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit
150	151	152	153	154	155	156	157	
1 MB 67:33 LDPE (350 lb) 7 day	2 b	5 bc	13 c	33 b	5 a	9 ab	45 cd	132 a
2 MB 67:33 LDPE (350 lb) 7 day + 1 day	1 b	4 c	20 abc	41 b	4 a	9 ab	47 bcd	128 a
3 MB 67:33 LDPE (350 lb) 14 day	1 b	3 c	21 abc	55 ab	6 a	12 a	49 a-d	144 a
4 MB 67:33 LDPE (350 lb) 14 day + 1 day	2 b	9 bc	21 abc	49 ab	3 ab	4 bc	49 a-d	141 a
5 3 Way Full Rate LDPE 7 day	12 a	39 a	30 a	75 a	3 ab	5 bc	60 a	150 a
6 3 Way Full Rate LDPE 7 day + 1 day	11 a	39 a	31 a	76 a	3 ab	5 bc	58 ab	149 a
7 3 Way Full Rate LDPE 14 day	2 b	9 bc	25 ab	57 ab	5 a	9 ab	55 abc	148 a
8 3 Way Full Rate LDPE 14 day + 1 day	4 b	13 bc	21 abc	45 ab	2 ab	4 bc	50 a-d	136 a
9 3 Way Full Rate VIF 7 day	6 b	23 ab	21 abc	54 ab	1 b	1 c	41 d	125 a
10 3 Way Full Rate VIF 7 day + 1 day	2 b	9 bc	21 abc	54 ab	1 b	1 c	48 bcd	147 a
11 3 Way Full Rate VIF 14 day	1 b	3 c	22 abc	50 ab	4 ab	6 abc	50 a-d	139 a
12 3 Way Full Rate VIF 14 day + 1 day	1 b	5 bc	17 bc	39 b	3 ab	5 bc	43 d	128 a
LSD (P=.05)	4.8	16.5	10.3	27.1	3.1	5.9	9.8	24.6
Standard Deviation	2.8	9.8	6.1	16.0	1.8	3.5	5.8	14.5
CV	74.28	73.12	27.75	30.67	55.93	61.25	11.69	10.44
Bartlett's X2	26.841	31.439	14.068	21.126	4.296	8.28	20.475	17.629
P(Bartlett's X2)	0.003*	0.001*	0.229	0.032*	0.96	0.688	0.039*	0.091

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

Column 141: T22 = ([C136]+[C138]+[C140])

Column 142: T23 = ([C137]+[C139]+[C141])

Column 143: T24 = ([C136]+[C138]+[C140]+[C142]+[C144]+[C146]+[C148]+[C150]+[C152])

Column 144: T25 = ([C137]+[C139]+[C141]+[C143]+[C145]+[C147]+[C149]+[C151]+[C153])

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Determining plant back interval when applying the 3 way fumigant systems.

Trial ID: Veg12-07 Study Dir.: Culpepper, Sumner, MacRae
 Location: TVP Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Culpepper, Sumner, MacRae **Title:** Ext. Weed Science
Affiliation: Univ. of Georgia
Postal Code: 31794

Investigator: Stanley Culpepper **Title:** Ext. Weed Science
Affiliation: Univ. of Georgia
Postal Code: 31794

TRIAL LOCATION

City: Tifton **Trial Status:** completed
State/Prov.: Georgia **Trial Reliability:** good
Postal Code: 31794 **Initiation Date:** Feb-27-07
Country: USA **Planned Completion Date:** _____
E-Longitude of LL Corner °: _____ **N-Latitude of LL Corner °:** _____
Altitude of LL Corner: _____ **Unit:** _____ **Angle y-axis to North °:** _____
Directions:

COOPERATOR/LANDOWNER

Cooperator: _____ **Country:** _____
Org: _____ **Phone No:** _____
Address 1: _____ **Fax No:** _____
Address 2: _____
City: _____
State/Prov: _____
Postal Code: _____

Conducted Under GLP (Y/N): N **Conducted Under GEP (Y/N):** N
Guidelines: _____ **Guideline Description:** _____

Objective:

Conclusions:

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.			

Crop 1: LYPES tomato **Variety:** Bella Rose
Planting Date: _____ **Planting Method:** transplant
Rate: 1 per 20 in **Depth:** 1.5 in **Perennial Age:** ____
Row Spacing: 6 ft **Spacing Within Row:** 20 in **Seed Bed:** mulched
Soil Temperature: 84 f **Soil Moisture:** drip **Emergence Date:** _____

Crop 2: CPSAN bell pepper **Variety:** Heritage
Planting Date: _____ **Planting Method:** transplant
Rate: 1 per 20 in **Depth:** 1.5 in **Perennial Age:** ____
Row Spacing: 6 ft **Spacing Within Row:** 20 in **Seed Bed:** mulched
Soil Temperature: 84 f **Soil Moisture:** drip **Emergence Date:** _____

Crop 3: CUMMC cantalope **Variety:** Athena
Planting Date: _____ **Planting Method:** transplant
Rate: 1 per 20 in **Depth:** 1.5 in **Perennial Age:** ____
Row Spacing: 6 ft **Spacing Within Row:** 20 in **Seed Bed:** mulched
Soil Temperature: 84 f **Soil Moisture:** drip **Emergence Date:** _____

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SITE AND DESIGN

Plot Width, Unit: 6 FT Plot Length, Unit: 15 FT Reps: 3
 Site Type: Ponder Farm
 Tillage Type: Conventional Study Design: FACTORIAL

Trial Initiation Comments:

	Previous Crops	Previous Pesticides	Year
1.			

MAINTENANCE

Field Prep./Maintenance:

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

SOIL DESCRIPTION

% Sand: 90 % OM: 1.1 Texture: Sand
 % Silt: 8 pH: 6.3 Soil Name: Tifton sandy loam
 % Clay: 2 CEC: _____ Fert. Level: _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: _____

Closest Weather Station: _____ Distance: _____ Unit: _____

APPLICATION DESCRIPTION

	A
Application Date:	Feb-27-07
Time of Day:	5:00 pm
Application Method:	band
Application Timing:	preplant
Applic. Placement:	shank inj
Air Temp., Unit:	70 f
% Relative Humidity:	40
Wind Velocity, Unit:	5 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	63 f
Soil Moisture:	moist
% Cloud Cover:	0

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CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	LYPES preplant
Stage Scale:	not plant
Height, Unit:	0 inch
Crop 2 Code, Stage:	CPSAN preplant
Stage Scale:	not plant
Height, Unit:	0 inch
Crop 3 Code, Stage:	CUMMC preplant
Stage Scale:	not plant
Height, Unit:	0 inch

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	
Stage Scale:	
Density, Unit:	

APPLICATION EQUIPMENT

	A
Appl. Equipment:	see
Operating Pressure:	comments
Nozzle Type:	
Nozzle Size:	
Nozzle Spacing, Unit:	
Nozzles/Row:	
Band Width, Unit:	
Boom Length, Unit:	
Boom Height, Unit:	
Ground Speed, Unit:	
Incorporation Equip.:	
Hours to Incorp.:	
Incorp. Depth, Unit:	
Carrier:	
Spray Volume, Unit:	
Spray pH:	
Propellant:	
Tank Mix (Y/N):	

Trt No	Treatment Application Comment