

# University of Georgia

**Comparing Telone/Vapam plus a reduced rate of chloropicrin to methyl bromide  
in large acreage on farm trials.**

Trial ID: Veg44-06

Study Dir.: Martin Flora

Location: Southern Valley (B6)

Investigator: Stanley Culpepper

Reps: 3

Plots: 10 by 300 feet

Spray vol: 14.8 gal/ac

Mix size: 1 liters (min 11.575)

Trt No.	Treatment Name	Form	Form Conc	Form Type	Rate	Rate Unit	Stg	Grow	Appl Code	Amt Product to Measure	Plot No. By Rep		
											1	2	3
1	Methyl bromide 400 lb										102	202	302
2	Telone 12 G										101	201	301
	Chloropicrn 75 lb												
	Vapam 66 G												

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
<p>* '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.</p> <p style="text-align: center;">Trial Comments</p> <p>OBJECTIVE: Compare MB to Telone/Pic/Vapam for control of various weeds.</p> <p>WEED RESPONSE:                      1. No difference in nutsedge, pitted morningglory, or smallflower morningglory were noted.                      2. Plots were 3 rows by 300 feet.</p> <p>EGGPLANT HEIGHTS:                      1. During mid-April, 40 plants per plot were measured for plant height.                      2. No differences in treatments were noted.</p> <p>GENERAL COMMENTS:                      1. MB and chloropicrin were applied with the super bedder plastic layer injecting the fumigant 8 inches deep with 3 knives on a 32 inch bedtop. Vapam was injected 4 inches deep into the final bed with the injection knives 4 inches apart. Telone II was injected 10-12 inches deep with a Yetter applicator.</p>					

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Location: Southern Valley (B6)

Investigator: Stanley Culpepper

Weed Code	CYPZZ	CYPZZ	IPOLA	IAQTA	plant 1 SOLME	plant 2 SOLME	plant 3 SOLME	plant 4 SOLME	
Crop Code									
Rating Data Type	#/plot	#/plot	#/plot	#/plot	ht	ht	ht	ht	
Rating Unit	ct	ct	ct	ct	cm	cm	cm	cm	
Rating Date	Mar-22-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	
Trt-Eval Interval	28 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	
ARM Action Codes									
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate	
		Unit	Unit	Unit	Unit	Unit	Unit	Unit	
		1	2	3	4	5	6	7	
1	Methyl bromide 400 lb	0 a	0 a	0 a	0 a	19 a	17 a	19 a	19 a
2	Telone 12 G Chloropicrn 75 lb Vapam 66 G	0 a	0 a	0 a	0 a	18 a	19 a	19 a	21 a
LSD (P=.05)		0.0	0.0	0.0	0.0	8.0	6.3	13.1	2.9
Standard Deviation		0.0	0.0	0.0	0.0	2.3	1.8	3.7	0.8
CV		0.0	0.0	0.0	0.0	12.29	9.8	19.69	4.05
Bartlett's X2		0.0	0.0	0.0	0.0	0.971	0.64	0.793	0.511
P(Bartlett's X2)		.	.	.	.	0.325	0.424	0.373	0.475

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

## University of Georgia

Weed Code	plant 5	plant 6	plant 7	plant 8	plant 9	plant 10	plant 11	plant 12
Crop Code	SOLME	SOLME	SOLME	SOLME	SOLME	SOLME	SOLME	SOLME
Rating Data Type	ht	ht	ht	ht	ht	ht	ht	ht
Rating Unit	cm	cm	cm	cm	cm	cm	cm	cm
Rating Date	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06
Trt-Eval Interval	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A
ARM Action Codes								
Trt No.	9	10	11	12	13	14	15	16
Treatment Name								
Rate								
Unit								
1 Methyl bromide 400 lb	17 a	20 a	18 a	20 a	19 a	20 a	20 a	22 a
2 Telone 12 G Chloropicrn 75 lb Vapam 66 G	18 a	19 a	21 a	20 a	20 a	20 a	19 a	20 a
LSD (P=.05)	9.0	2.9	4.3	10.8	1.4	5.2	2.5	8.0
Standard Deviation	2.5	0.8	1.2	3.1	0.4	1.5	0.7	2.3
CV	14.3	4.19	6.28	15.67	2.09	7.42	3.57	10.91
Bartlett's X2	0.793	0.168	0.793	1.607	0.088	3.113	1.47	1.338
P(Bartlett's X2)	0.373	0.682	0.373	0.205	0.767	0.078	0.225	0.247

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

## University of Georgia

Weed Code	plant 13	plant 14	plant 15	plant 16	plant 17	plant 18	plant 19	plant 20
Crop Code	SOLME	SOLME	SOLME	SOLME	SOLME	SOLME	SOLME	SOLME
Rating Data Type	ht	ht	ht	ht	ht	ht	ht	ht
Rating Unit	cm	cm	cm	cm	cm	cm	cm	cm
Rating Date	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06
Trt-Eval Interval	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A
ARM Action Codes								
Trt No.	17	18	19	20	21	22	23	24
Treatment Name								
Rate								
Unit								
1 Methyl bromide 400 lb	21 a	21 a	18 b	20 a	21 a	21 a	21 a	20 a
2 Telone 12 G Chloropicrn 75 lb Vapam 66 G	20 a	22 a	20 a	18 a	19 a	19 a	17 a	20 a
LSD (P=.05)	4.3	10.0	0.0	13.7	2.5	6.3	11.5	8.7
Standard Deviation	1.2	2.9	0.0	3.9	0.7	1.8	3.3	2.5
CV	5.88	13.4	0.0	20.32	3.48	8.9	17.19	12.31
Bartlett's X2	0.168	3.419	0.0	1.442	0.793	2.359	4.526	0.511
P(Bartlett's X2)	0.682	0.064	.	0.23	0.373	0.125	0.033*	0.475

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

## University of Georgia

Weed Code	plant 21	plant 22	plant 23	plant 24	plant 25	plant 26	plant 27	plant 28
Crop Code	SOLME	SOLME	SOLME	SOLME	SOLME	SOLME	SOLME	SOLME
Rating Data Type	ht	ht	ht	ht	ht	ht	ht	ht
Rating Unit	cm	cm	cm	cm	cm	cm	cm	cm
Rating Date	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06
Trt-Eval Interval	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A
ARM Action Codes								
Trt No.	25	26	27	28	29	30	31	32
Treatment Name								
Rate								
Unit								
1 Methyl bromide 400 lb	18 a	21 a	19 a	23 a	21 a	20 a	20 a	21 a
2 Telone 12 G Chloropicrn 75 lb Vapam 66 G	21 a	18 a	21 a	20 a	19 a	18 a	20 a	21 a
LSD (P=.05)	8.7	13.8	10.0	4.3	11.4	10.3	7.6	3.8
Standard Deviation	2.5	3.9	2.9	1.2	3.2	2.9	2.2	1.1
CV	12.84	19.85	14.41	5.79	16.48	15.49	10.89	5.18
Bartlett's X2	1.338	0.081	0.0	2.359	4.628	0.064	0.0	0.755
P(Bartlett's X2)	0.247	0.776	.	0.125	0.031*	0.801	.	0.385

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

## University of Georgia

Weed Code	plant 29	plant 30	plant 31	plant 32	plant 33	plant 34	plant 35	plant 36			
Crop Code	SOLME	SOLME	SOLME	SOLME	SOLME	SOLME	SOLME	SOLME			
Rating Data Type	ht	ht	ht	ht	ht	ht	ht	ht			
Rating Unit	cm	cm	cm	cm	cm	cm	cm	cm			
Rating Date	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06			
Trt-Eval Interval	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A			
ARM Action Codes											
Trt No.	Treatment Name	Rate	Unit	33	34	35	36	37	38	39	40
1	Methyl bromide 400 lb			19 a	20 a	18 b	19 a	21 a	21 a	21 a	20 a
2	Telone 12 G Chloropicrn 75 lb Vapam 66 G			20 a	20 a	21 a	20 a	18 a	19 a	21 a	21 a
LSD (P=.05)				11.2	9.0	0.0	2.9	8.7	3.8	8.0	2.5
Standard Deviation				3.2	2.5	0.0	0.8	2.5	1.1	2.3	0.7
CV				16.21	12.75	0.0	4.22	12.84	5.36	10.82	3.45
Bartlett's X2				0.442	0.31	0.0	1.816	4.138	0.511	0.585	0.793
P(Bartlett's X2)				0.506	0.578	1.00	0.178	0.042*	0.475	0.444	0.373

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

## University of Georgia

Weed Code	plant 37	plant 38	plant 39	plant 40	Avg40pla
Crop Code	SOLME	SOLME	SOLME	SOLME	SOLME
Rating Data Type	ht	ht	ht	ht	ht
Rating Unit	cm	cm	cm	cm	cm
Rating Date	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06	Apr-12-06
Trt-Eval Interval	49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A
ARM Action Codes					T1
Trt No.	41	42	43	44	45
Treatment Name					
Rate					
Unit					
1 Methyl bromide 400 lb	21 a	21 a	20 a	22 a	20 a
2 Telone 12 G Chloropicrn 75 lb Vapam 66 G	23 a	20 a	19 a	18 b	20 a
LSD (P=.05)	7.2	7.6	8.0	2.9	0.7
Standard Deviation	2.0	2.2	2.3	0.8	0.2
CV	9.35	10.62	11.76	4.05	1.03
Bartlett's X2	3.113	0.037	0.128	0.037	0.064
P(Bartlett's X2)	0.078	0.848	0.721	0.848	0.80

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

Column 45: T1 = @AVG([C5],[C44])

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Trial ID: Veg44-06    Study Dir.: Martin Flora  
 Location: Southern Valley (B6)                          Investigator: Stanley Culpepper

**GENERAL TRIAL INFORMATION**

**Study Director:** Martin Flora    **Title:** Manger  
**Affiliation:** Southern Valley Produce  
**Postal Code:** \_\_\_\_\_  
**Investigator:** Stanley Culpepper    **Title:** Ext. Weed Science  
**Affiliation:** Univ. of Georgia  
**Postal Code:** 31794

**TRIAL LOCATION**

**City:** Colquit Co.    **Trial Status:** completed  
**State/Prov.:** GA    **Trial Reliability:** good  
**Postal Code:** \_\_\_\_\_    **Initiation Date:** Feb-02-07  
**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:** SOLME eggplant    **Variety:** \_\_\_\_\_  
**Planting Date:** Mar-07-07    **Planting Method:** transplant  
**Rate:** 1                          18 inch                          **Depth:** 1                          in                          **Perennial Age:** \_\_\_\_ \_\_\_\_  
**Row Spacing:** 5                          feet                          **Spacing Within Row:** 18                          inch                          **Seed Bed:** raised/mulch  
**Soil Temperature:** \_\_\_\_ \_\_\_\_ **Soil Moisture:** drip                          **Emergence Date:** \_\_\_\_\_

**SITE AND DESIGN**

**Plot Width, Unit:** 10                          FT                          **Plot Length, Unit:** 300                          FT                          **Reps:** 3  
**Site Type:** Southern Valley Produce  
**Tillage Type:** conventional    **Study Design:** RANDOMIZED COMPLETE BLOCK

**Trial Initiation Comments:**

	Previous Crops	Previous Pesticides	Year
1.			

**MAINTENANCE**

**Field Prep./Maintenance:**



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

**SOIL DESCRIPTION**

% Sand: \_\_\_\_\_ % OM: \_\_\_\_\_ Texture: \_\_\_\_\_  
 % Silt: \_\_\_\_\_ pH: \_\_\_\_\_ Soil Name: \_\_\_\_\_  
 % Clay: \_\_\_\_\_ CEC: \_\_\_\_\_ Fert. Level: \_\_\_\_\_

**ADDITIONAL MEASURED ELEMENTS**

Element	Quantity	Unit

**MOISTURE CONDITIONS**

No.	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: \_\_\_\_\_

Closest Weather Station: \_\_\_\_\_ Distance: \_\_\_\_\_ Unit: \_\_\_\_\_

**APPLICATION DESCRIPTION**

	A
Application Date:	Feb-02-06
Time of Day:	9 am
Application Method:	broadcast
Application Timing:	preplant
Applic. Placement:	in bed
Air Temp., Unit:	65 F
% Relative Humidity:	48
Wind Velocity, Unit:	2 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	60 F
Soil Moisture:	moist
% Cloud Cover:	35

**CROP STAGE AT EACH APPLICATION**

	A
Crop 1 Code, Stage:	SOLME preplant
Stage Scale:	not up
Height, Unit:	

**WEED STAGE AT EACH APPLICATION**

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

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## 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