

# University of Georgia

**Nutsedge response to fumigants applied throughout the spring.**

Trial ID: Veg-02-05(timing)                      Study Dir.: Stanley Culpepper  
 Location: Ponder farm (5140)                      Investigator: Stanley Culpepper

Reps: 3    Plots: 3 by 45 feet  
 Spray vol: 46 gal/ac                              Mix size: 2 liters (min 1.619)

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Grow Unit	Appl Stg	Amt Code	Product to Measure	Plot No. By Rep		
									1	2	3
1	Mid Jan None								101	207	301
2	Mid Jan MeBr 266 lb/A of 67:33								102	204	311
3	Mid Jan Pic Plus 127.5 lb/A								103	209	305
4	Mid Jan Vapam 46 GPA								105	210	309
5	Mid Feb None								104	206	302
6	Mid Feb MeBr 266 lb/A of 67:33								106	205	312
7	Mid Feb Pic Plus 127.5 lb/A								107	211	303
8	Mid Feb Vapam 46 GPA								108	203	307
9	March None								109	212	308
10	March MeBr 266 lb/A of 67:33								110	201	310
11	March Pic Plus 127.5 lb/A								111	208	306
12	March Vapam 46 GPA								112	202	304

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Lot Code
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\* 'Per area' calculations based on spray volume= 46 gal/ac, mix size= 2 liters (mix size basis).  
 \* Product amount calculations increased 25 % for overage adjustment.

Trial Comments

OBJECTIVE: Determine effect of application timing on fumigant nutsedge activity.

RESULTS:

1. Application date had essentially no impact on fumigant activity. Soil temperatures at time of application ranged from 54 to 65 degrees at 5 inches.
2. Methyl bromide was more effective than chloropicrin which was more effective than Vapam or the non-treated control. Low fumigant use rates were used as a means to focus on application timings more than fumigant activity.

GENERAL COMMENTS:

1. Bromide and chloropicrin applied with super bedder plastic layer injecting fumigant 6 to 8 inches deep with 3 knives in a 32 inch bed top.
2. Vapam applied broadcast with knives 4 inches apart placing fumigant 4 inches deep. After application, land was hipped followed by the supper bedder plastic layer.

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Weed Code	CYPRO	CYPRO	CYPRO	CYPRO	CYPRO	CYPRO	CYPRO	CYPRO	
Crop Code				through	through	through	through	through	
Rating Data Type	control	control	control	mulch	mulch	mulch	mulch	mulch	
Rating Unit	percent	percent	percent	#/plot	#/plot	#/plot	#/plot	#/plot	
Rating Date	Apr-05-05	Apr-28-05	May-24-05	Mar-14-05	Mar-24-05	Apr-15-05	May-03-05	May-28-05	
Trt-Eval Interval	83 DA-A	106 DA-A	132 DA-A	61 DA-A	71 DA-A	93 DA-A	111 DA-A	136 DA-A	
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	Mid Jan None	0	0	0	127	159	78	184	271
2	Mid Jan MeBr 266 lb/A of 67:33	99	97	92	1	0	1	7	26
3	Mid Jan Pic Plus 127.5 lb/A	50	47	28	32	42	67	101	90
4	Mid Jan Vapam 46 GPA	25	22	10	14	36	126	208	299
5	Mid Feb None	0	0	0	133	187	181	227	310
6	Mid Feb MeBr 266 lb/A of 67:33	100	97	91	0	0	1	5	28
7	Mid Feb Pic Plus 127.5 lb/A	54	47	10	22	35	71	134	194
8	Mid Feb Vapam 46 GPA	63	49	27	2	7	64	144	230
9	March None	15	17	0	38	195	196	275	292
10	March MeBr 266 lb/A of 67:33	100	97	93	0	0	3	9	23
11	March Pic Plus 127.5 lb/A	67	42	25	0	15	61	120	180
12	March Vapam 46 GPA	89	40	12	0	0	68	161	203
LSD (P=.05)		12.1	18.5	12.3	83.9	150.0	47.4	113.2	122.7
Standard Deviation		7.2	11.0	7.3	49.5	88.6	28.0	66.9	72.4
CV		12.97	23.77	22.45	161.97	157.37	36.6	50.93	40.53

Means followed by same letter do not significantly differ (P=.05, LSD)



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

**SOIL DESCRIPTION**

% Sand: 94      % OM: 1.2      Texture: sand  
 % Silt: 2      pH: 6.4      Soil Name: Tifton sandy loam  
 % Clay: 4      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	B	C
Application Date:	Jan-12-05	Feb-15-05	Mar-03-05
Time of Day:	9 am	9 am	9 am
Application Method:	broadcast	broadcast	broadcast
Application Timing:	Mid Jan	Mid Feb	Early Mar
Applic. Placement:	8"injecti	8"injecti	8"injecti
Air Temp., Unit:	70 F	64 F	59 F
% Relative Humidity:	42	45	40
Wind Velocity, Unit:	3 mph	3 mph	2 mph
Dew Presence (Y/N):	n	n	n
Water Hardness:			
Soil Temp., Unit:	65 F	58 F	54 F
Soil Moisture:	moist	moist	moist
% Cloud Cover:	100	100	100

**CROP STAGE AT EACH APPLICATION**

	A	B	C
Crop 1 Code, Stage:	none Mid Jan	none Mid Feb	none Ear. Marc
Stage Scale:	preplant	preplant	preplant
Height, Unit:	0 in	0 in	0 in

**WEED STAGE AT EACH APPLICATION**

	A	B	C
Weed 1 Code, Stage:	CYPRO Mid Jan	CYPRO Mid Feb	CYPRO Mar
Stage Scale:	not up	not up	not up
Density, Unit:	. .	. .	. .

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## APPLICATION EQUIPMENT

	A	B	C
<b>Appl. Equipment:</b>	see comme	see comme	see comme
<b>Operating Pressure:</b>	.	.	.
<b>Nozzle Type:</b>	.	.	.
<b>Nozzle Size:</b>	.	.	.
<b>Nozzle Spacing, Unit:</b>	0. .	0. .	0. .
<b>Nozzles/Row:</b>	3	3	3
<b>Band Width, Unit:</b>	0. .	0. .	0. .
<b>Boom Length, Unit:</b>	0. .	0. .	0. .
<b>Boom Height, Unit:</b>	0. .	0. .	0. .
<b>Ground Speed, Unit:</b>	3 mph	3 mph	3 mph
<b>Incorporation Equip.:</b>	.	.	.
<b>Hours to Incorp.:</b>	0.	0.	0.
<b>Incorp. Depth, Unit:</b>	0. .	0. .	0. .
<b>Carrier:</b>	none	none	none
<b>Spray Volume, Unit:</b>	0. .	0. .	0. .
<b>Spray pH:</b>	0.	0.	0.
<b>Propellant:</b>	N	N	N
<b>Tank Mix (Y/N):</b>	N	N	N

Trt No	Treatment Application Comment