

University of Georgia

Nutsedge response to various methyl bromide formulations and application methods

Trial ID: Veg45-05 Study Dir.: Stanley Culpepper
 Location: Ponder farm (5160) Investigator: Stanley Culpepper

Reps: 3 Plots: 6 by 65 feet
 Spray vol: 14.8 gal/ac Mix size: 2 liters (min 1.5048)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Appl Stg	Amt to Measure	Plot No. By Rep		
								1	2	3
1	MB/Pic 67:33 at 400 lb							101	204	303
2	MB/Pic 57:43 at 400 lb							102	203	304
3	MB/Pic 50:50 at 400 lb							103	202	301
4	MB/Pic 67:33 at 400 lb drip applied by H&D							104	201	302

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= 14.8 gal/ac, mix size= 2 liters (mix size basis).
 * Product amount calculations increased 25 % for overage adjustment.

Trial Comments

OBJECTIVE: Compare formulations and application methods of methyl bromide.

Nutsedge Response:

1. Visual control and actual counts of nutsedge noted that the drip injecting MB was less effective than shank applications.
2. There was little difference in 67:33 and 57:43 applications of MB.
3. MB 50:50 mixtures tended to be less effective than 67:33 or 57:43 mixtures.

GENERAL COMMENTS:

1. July 13: fumigants were applied, beds were formed and mulch was laid. MB was either applied with super bedder plastic layer injecting 8 inches deep with 3 knives on a 32 inch bedtop or through the drip as noted.

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Weed Code	CYPRO control percent	CYPRO control percent	CYPRO control percent	CYPRO number #/plot	CYPRO number #/plot	CYPRO number #/plot	CYPRO number #/plot	CYPRO number #/plot	
Rating Data Type									
Rating Unit									
Rating Date	Jul-25-05	Aug-05-05	Aug-11-05	Jul-27-05	Aug-02-05	Aug-08-05	Aug-15-05	Aug-22-05	
Trt-Eval Interval	12 DA-A	23 DA-A	29 DA-A	14 DA-A	20 DA-A	26 DA-A	33 DA-A	40 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	2	3	4	5	6	7	
1	MB/Pic 67:33 at 400 lb	100	97	93	1	2	5	13	27
2	MB/Pic 57:43 at 400 lb	100	97	91	1	1	4	13	32
3	MB/Pic 50:50 at 400 lb	99	93	87	1	6	7	22	38
4	MB/Pic 67:33 at 400 lb drip applied by H&D	95	85	81	7	16	23	37	62
LSD (P=.05)		2.5	8.8	5.1	2.7	4.0	5.5	7.9	10.8
Standard Deviation		1.2	4.4	2.6	1.3	2.0	2.8	4.0	5.4
CV		1.26	4.76	2.91	55.6	30.45	28.45	18.46	13.56

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

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Weed Code	CYPRO		
Rating Data Type	number		
Rating Unit	#/plot		
Rating Date	Sep-06-05		
Trt-Eval Interval	55 DA-A		
Trt No.	Treatment Name	Rate	Unit
1	MB/Pic 67:33 at 400 lb		34
2	MB/Pic 57:43 at 400 lb		32
3	MB/Pic 50:50 at 400 lb		39
4	MB/Pic 67:33 at 400 lb drip applied by H&D		58
LSD (P=.05)			10.6
Standard Deviation			5.3
CV			13.03

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

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GENERAL TRIAL INFORMATION

Study Director: Stanley Culpepper **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: TyTy **Trial Status:** completed
State/Prov.: GA **Trial Reliability:** excellent
Postal Code: 31794 **Initiation Date:** Jul-13-05
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.	CYPRO	purple nutsedge	

Crop 1: none fallow **Variety:** _____
Planting Date: _____ **Planting Method:** _____
Rate: _____ **Depth:** _____ **Perennial Age:** _____
Row Spacing: _____ **Spacing Within Row:** _____ **Seed Bed:** _____
Soil Temperature: _____ **Soil Moisture:** _____ **Emergence Date:** _____

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 65 FT **Reps:** 3
Site Type: research station
Tillage Type: plasticulture **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: 94 % OM: 1.3 Texture: loamy sand
 % Silt: 2 pH: 6.2 Soil Name: _____
 % 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
Application Date:	Jul-13-05
Time of Day:	1 pm
Application Method:	broadcast
Application Timing:	fumigatio
Applic. Placement:	in soil
Air Temp., Unit:	92 F
% Relative Humidity:	54
Wind Velocity, Unit:	2 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	90 F
Soil Moisture:	moist
% Cloud Cover:	70

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	none
Stage Scale:	
Height, Unit:	

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	CYPRO preplant
Stage Scale:	not up
Density, Unit:	see data

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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