

University of Georgia

| | |
|--|---------------------------------|
| Large acreage comparison of LDPE and metalized smooth impacts on nutsedge activity by methyl bromide. | |
| Trial ID: Veg57-05 | Study Dir.: Stanley Culpepper |
| Location: LTF | Investigator: Stanley Culpepper |

Reps: 3 Plots: 18 by 600 feet
 Spray vol: 14.8 gal/ac Mix size: 2 liters (min 41.671)

| Trt No. | Treatment Name | Form Conc | Form Type | Rate | Grow Unit | Stg | Appl Code | Amt Product to Measure | Plot No. By Rep | | |
|---------|----------------------------------|-----------|-----------|------|-----------|-----|-----------|------------------------|-----------------|-----|-----|
| | | | | | | | | | 1 | 2 | 3 |
| 1 | MB 67:33 400 lb LDPE | | | | | | | | 101 | 204 | 302 |
| 2 | MB 67:33 300 lb LDPE | | | | | | | | 102 | 203 | 301 |
| 3 | MB 67:33 300 lb metalized smooth | | | | | | | | 103 | 201 | 303 |
| 4 | MB 67:33 200 lb metalized smooth | | | | | | | | 104 | 202 | 304 |

Sort Order: Treatment

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

| Amount* | Unit | Treatment Name | Lot Code |
|---------|------|----------------|----------|
|---------|------|----------------|----------|

- * '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: Determine what rate of methyl bromide would be needed under metalized smooth mulch to equal 400 lb/A under standard LDPE mulch.

NUTSEDGE EMERGENCE COUNTS:

Early-season prior to Sandea application:

1. MB at 300 lbs under LDPE film was the least effective treatment while 300 lbs under metalized mulch was the most effective treatment.
2. MB at 400 lbs under LDPE mulch was more effective than 200 lbs of MB under metalized mulch.
3. MB at 400 lbs under LDPE mulch was less effective than 300 lbs of MB under metalized mulch.

Late-season after Sandea application:

1. MB at 400 lbs under LDPE mulch or 300 lbs under metalized mulch provided similar control; MB at 200 lbs under metalized mulch was less effective.
2. MB at 300 lbs under LDPE mulch was the least effective treatment.

CONCLUSIONS:

1. Growers should experiment with 67 to 75% rate of MB under smooth metalized mulch.

GENERAL COMMENTS:

1. Each plot was 3 beds by 1500 feet in length.
2. Sandea was applied overtop of tomato and nutsedge on July 21.

University of Georgia

Large acreage comparison of LDPE and metalized smooth impacts on nutsedge activity by methyl bromide.

Trial ID: Veg57-05

Study Dir.: Stanley Culpepper

Location: LTF

Investigator: Stanley Culpepper

| | | |
|------------------------------------|-----------|-----------|
| Weed Code | CYPZZ | CYPZZ |
| Crop Code | through | through |
| Rating Data Type | plastic | plastic |
| Rating Unit | #/400ft | #/400ft |
| Rating Date | Jul-20-05 | Nov-17-05 |
| Trt-Eval Interval | 26 DA-A | 146 DA-A |
| Trt No. | | |
| Treatment Name | | |
| Rate | | |
| Rate Unit | | |
| | 1 | 2 |
| 1 MB 67:33 400 lb LDPE | 77 | 5 |
| 2 MB 67:33 300 lb LDPE | 135 | 39 |
| 3 MB 67:33 300 lb metalized smooth | 29 | 4 |
| 4 MB 67:33 200 lb metalized smooth | 102 | 13 |
| LSD (P=.05) | 23.0 | 5.7 |
| Standard Deviation | 11.5 | 2.8 |
| CV | 13.4 | 18.44 |

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

University of Georgia

Large acreage comparison of LDPE and metalized smooth impacts on nutsedge activity by methyl bromide.

Trial ID: Veg57-05

Study Dir.: Stanley Culpepper

Location: LTF

Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Stanley Culpepper
Affiliation: Univ. of Georgia
Postal Code: 31794

Title: Ext. Weed Science

Investigator: Stanley Culpepper
Affiliation: Univ. of Georgia
Postal Code: 31794

Title: Ext. Weed Science

TRIAL LOCATION

City: TyTy **Trial Status:** completed
State/Prov.: GA **Trial Reliability:** good
Postal Code: _____ **Initiation Date:** Jun-24-05
Country: 31794 **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. | CYPZZ | yellow and purple nutsedge | |

Crop 1: LYPES TOMATO **Variety:** several
Planting Date: Nov-04-05 **Planting Method:** transplant
Rate: 1 20 in **Depth:** 1.5 in **Perennial Age:** _____
Row Spacing: 5 feet **Spacing Within Row:** 20 inch **Seed Bed:** 8 in bed
Soil Temperature: _____ **Soil Moisture:** drip **Emergence Date:** _____

SITE AND DESIGN

Plot Width, Unit: 18 FT **Plot Length, Unit:** 600 FT **Reps:** 3
Site Type: Lewis Taylor Farms
Tillage Type: plasticulture **Study Design:** RANDOMIZED COMPLETE BLOCK

Trial Initiation Comments:

| | Previous Crops | Previous Pesticides | Year |
|----|----------------|---------------------|------|
| 1. | | | |

MAINTENANCE

Field Prep./Maintenance:

University of Georgia

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

SOIL DESCRIPTION

% Sand: 0. % OM: 0. Texture: sand
 % Silt: 0. pH: 0. Soil Name: Tifton sandy loam
 % Clay: 0. CEC: _____ Fert. Level: _____

ADDITIONAL MEASURED ELEMENTS

| Element | Quantity | Unit |
|---------|----------|------|
| | | |

MOISTURE CONDITIONS

| No. | Date | Time | Amount | Unit | Type | Interval | Unit |
|-----|------|------|--------|------|------|----------|------|
| 1. | | | | | | | |

Overall Moisture Conditions: drip irrigation

Closest Weather Station: _____ Distance: _____ Unit: __

APPLICATION DESCRIPTION

| | A |
|----------------------|-----------|
| Application Date: | Jun-24-05 |
| Time of Day: | 7 pm |
| Application Method: | injected |
| Application Timing: | fumigatio |
| Applic. Placement: | injected |
| Air Temp., Unit: | 85 F |
| % Relative Humidity: | 59 |
| Wind Velocity, Unit: | 4 mph |
| Dew Presence (Y/N): | n |
| Water Hardness: | |
| Soil Temp., Unit: | 89 F |
| Soil Moisture: | wet |
| % Cloud Cover: | 40 |

CROP STAGE AT EACH APPLICATION

| | A |
|---------------------|----------------|
| Crop 1 Code, Stage: | LYPES preplant |
| Stage Scale: | not up |
| Height, Unit: | 0 inch |

WEED STAGE AT EACH APPLICATION

| | A |
|---------------------|----------------|
| Weed 1 Code, Stage: | CYPZZ preplant |
| Stage Scale: | not up |
| Density, Unit: | 0 inch |

University of Georgia

APPLICATION EQUIPMENT

| | |
|-----------------------|-----------|
| | A |
| Appl. Equipment: | supperbed |
| Operating Pressure: | . |
| Nozzle Type: | . |
| Nozzle Size: | . |
| Nozzle Spacing, Unit: | 8 inch |
| Nozzles/Row: | 3 |
| Band Width, Unit: | |
| Boom Length, Unit: | |
| Boom Height, Unit: | |
| Ground Speed, Unit: | 5 mph |
| Incorporation Equip.: | |
| Hours to Incorp.: | |
| Incorp. Depth, Unit: | |
| Carrier: | none |
| Spray Volume, Unit: | |
| Spray pH: | |
| Propellant: | N |
| Tank Mix (Y/N): | |

| Trt No | Treatment Application Comment |
|--------|-------------------------------|
| | |