Seeded cultivar response to Dacthal when planted at two depths.

Trial ID: Onion4-08 Study Dir.: Jona Edwards
Location: Vidalia Onion Farm Investigator: Stanley Culpepper

Reps: 3 Plots: 6 by 25 feet

Spray vol: 14.8 gal/ac Mix size: 1 liters (min .57876)

|   | .,   |  |  |  |                            |             |               |          |  |
|---|--|--|--|--|----------------------------|-------------|---------------|----------|--|
|   | Treatment<br>Name                              |  |  |  | <br>Amt Product to Measure | Plot N<br>1 | lo. By I<br>2 | Rep<br>3 |  |
| 1 | 1/4 inch planting depth<br>No Dacthal          |  |  |  |                            | 102         | 204           | 306      |  |
| 2 | 1/4 inch planting depth<br>Dacthal PRE 6 PT/A  |  |  |  |                            | 104         | 202           | 304      |  |
| 3 | 1/4 inch planting depth<br>Dacthal PRE 12 PT/A |  |  |  |                            | 106         | 206           | 302      |  |
| 4 | 3/4 inch planting depth<br>No Dacthal          |  |  |  |                            | 101         | 203           | 305      |  |
| 5 | 3/4 inch planting depth<br>Dacthal PRE 6 PT/A  |  |  |  |                            | 103         | 201           | 303      |  |
| 6 | 3/4 inch planting depth<br>Dacthal PRE 12 PT/A |  |  |  |                            | 105         | 205           | 301      |  |

Sort Order: Treatment

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

### Amount\* Unit Treatment Name Form Conc Form Type Lot Code

- \* '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 how seeded onion cultivar and seedling depth impact onion tolerance to Dacthal PRE.

#### ONION RESPONSE:

- 1. Cultivars responded similarly to Dacthal PRE at normal use rates; however, at 12 PT/A Sweet Deal and Miss Megan tended to be slightly more sensitive.
- 2. Minor differences were noted with seedling depth. There was a trend for more injury from plants emerging from 0.75 inch as compared to 0.25 inch, especially Sweet Deal. Differences were primarily noted with 12 pt/A of Dacthal.
- 3. Injury from Dacthal was minor except at 12 PT/A with Sweet Deal (up to 32%) and Miss Megan (up to 18%).

### WEED RESPONSE:

1. All Dacthal rates provided excellent control of henbit

### GENERAL COMMENTS:

- 1. Four cultivars were included.
  - Row 1: Century
  - Row 2: Miss Megan
  - Row 3: Sugar Bell
  - Row 4: Sweet Deal
- 2. On November 5, 2008, irrigation occurred after planting.

### Jun-12-09 (Veg4-08) AOV Means Table Page 2 of 6

## **University of Georgia**

Seeded cultivar response to Dacthal when planted at two depths.

Trial ID: Onion4-08 Study Dir.: Jona Edwards
Location: Vidalia Onion Farm Investigator: Stanley Culpepper

| Weed Code<br>Crop Code<br>Rating Data Type<br>Rating Date<br>Trt-Eval Interval | century<br>injury<br>Dec-07-07<br>32 DA-A | Dec-20-07 | injury<br>Feb-05-08 | injury<br>Dec-07-07 | Dec-20-07 | injury<br>Feb-05-08 | injury<br>Dec-07-07 |
|--|---|-----------|---------------------|---------------------|-----------|---------------------|---------------------|
| Trt Treatment Rate No. Name Rate Unit  | 1   | 2         | 3                   | 4                   | 5         | 6                   | 7                   |
| 1 1/4 inch planting depth<br>No Dacthal  | 0 с                                       | 0 b       | 0 a                 | 0 b                 | 0 b       | 0 a                 | 0 с                 |
| 2 1/4 inch planting depth<br>Dacthal PRE 6 PT/A                                | 5 b                                       | 5 a       | 0 a                 | 7 ab                | 5 b       | 0 a                 | 5 b                 |
| 3 1/4 inch planting depth<br>Dacthal PRE 12 PT/A                               | 5 b                                       | 5 a       | 0 a                 | 5 ab                | 5 b       | 0 a                 | 5 b                 |
| 4 3/4 inch planting depth<br>No Dacthal  | 0 с                                       | 0 b       | 0 a                 | 0 b                 | 0 b       | 0 a                 | 0 с                 |
| 5 3/4 inch planting depth<br>Dacthal PRE 6 PT/A                                | 5 b                                       | 5 a       | 0 a                 | 12 ab               | 5 b       | 0 a                 | 7 b                 |
| 6 3/4 inch planting depth<br>Dacthal PRE 12 PT/A                               | 8 a                                       | 8 a       | 0 a                 | 18 a                | 17 a      | 0 a                 | 12 a                |
| LSD (P=.05)  | 2.1                                       | 4.3       | 0.0                 | 14.7                | 9.3       | 0.0                 | 2.7                 |
| Standard Deviation   | 1.2                                       | 2.4       |                     | 8.1                 | 5.1       | 0.0                 |                     |
| CV   | 30.3                                      | 60.61     |                     | 116.59              |           |                     |                     |
| Bartlett's X2<br>P(Bartlett's X2)  | 0.0                                       | 0.0       | 0.0                 | 5.903<br>0.052      |           | 0.0                 | 0.0<br>1.00         |

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

| Weed Code                                   |      |      |          |          |          |           |          | LAMAM   | LAMAM   |
|---|------|------|----------|----------|----------|-----------|----------|---------|---------|
| Crop Code                                   |      |      | sug bell | sug bell | swe deal | swe deal  | swe deal |         |         |
| Rating Data Type                            |      |      | injury   | injury   |          | , ,       | , ,      | control |         |
| Rating Date                                 |      |      |          |          |          | Dec-20-07 |          |         |         |
| Trt-Eval Interval                           |      |      | 45 DA-A  | 92 DA-A  | 32 DA-A  | 45 DA-A   | 92 DA-A  | 45 DA-A | 92 DA-A |
| Trt Treatment                               |      | Rate |          |          |          |           |          |         |         |
| No. Name                                    | Rate | Unit | 8        | 9        | 10       | 11        | 12       | 13      | 14      |
| 1 1/4 inch planting de<br>No Dacthal        | pth  |      | 0 b      | 0 a      | 0 с      | 0 b       | 0 a      | 0 b     | 0 b     |
| 2 1/4 inch planting de<br>Dacthal PRE 6 PT/ | -    |      | 5 a      | 0 a      | 8 b      | 10 b      | 0 a      | 99 a    | 99 a    |
| 3 1/4 inch planting de<br>Dacthal PRE 12 PT | •    |      | 5 a      | 0 a      | 7 bc     | 5 b       | 0 a      | 99 a    | 99 a    |
| 4 3/4 inch planting de<br>No Dacthal        | pth  |      | 0 b      | 0 a      | 0 c      | 0 b       | 0 a      | 0 b     | 0 b     |
| 5 3/4 inch planting de<br>Dacthal PRE 6 PT/ | •    |      | 5 a      | 0 a      | 13 b     | 15 ab     | 0 a      | 99 a    | 99 a    |
| 6 3/4 inch planting de<br>Dacthal PRE 12 PT | •    |      | 5 a      | 0 a      | 25 a     | 32 a      | 0 a      | 99 a    | 99 a    |
| LSD (P=.05)                                 |      |      | 0.0      | 0.0      | 7.4      | 20.2      | 0.0      | 0.0     | 0.0     |
| Standard Deviation                          |      |      | 0.0      | 0.0      | 4.0      | 11.1      | 0.0      | 0.0     | 0.0     |
| CV  |      |      | 0.0      | 0.0      | 45.54    | 107.93    | 0.0      | 0.0     | 0.0     |
| Bartlett's X2                               |      |      | 0.0      | 0.0      | 0.948    | 2.668     | 0.0      | 0.0     | 0.0     |
| P(Bartlett's X2)                            |      |      |          |          | 0.814    | 0.263     |          |         |         |

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

| See                      | eded cultivar response to Dact | hal when planted at | t two depths. |
|--------------------------|--------------------------------|---------------------|---------------|
| Trial ID: Onion4-08      | Study Dir.: J                  | Jona Edwards        |               |
|                          | n Farm Investigator: S         |                     |               |
|                          | GENERAL TRIAL INFORMATION      | * * * *             |               |
| Study Director: Jona Ed  |                                | Title: Ext. Weed    | Science       |
| Affiliation: Univers     |                                | 11010. Enc. weed    | bolenec       |
| Postal Code: 31794       |                                |                     |               |
|                          |                                |                     |               |
| Investigator: Stanley    | y Culpepper                    | Title: Ext. Weed    | Science       |
| Affiliation: Univers     | sity of Georgia                |                     |               |
| Postal Code: 31794       |                                |                     |               |
|                          |                                |                     |               |
|                          | TRIAL LOCATION                 |                     |               |
| City: Vidalia            |                                | Status:             |               |
| State/Prov.: GA          |                                | Reliability:        | _             |
| Postal Code:             | <del>-</del>                   | ation Date:         |               |
| Country: USA             |                                | ed Completion Date: |               |
|                          | er °: N-Latitu<br>Unit: Angle  |                     |               |
| Directions:              | 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:             | _                              |                     |               |
|                          |                                |                     |               |
|                          | /N): N Conducted Un            |                     |               |
| Guidelines:              | Guideline Description:         |                     |               |
| Obdestises.              |                                |                     |               |
| Objective:               |                                |                     |               |
| Conclusions:             |                                |                     |               |
|                          |                                |                     |               |
|                          | CROP AND WEED DESCRIPTION      |                     |               |
| Weed Code Common Name    | Scientific Name                |                     |               |
| 1. LAMAM henbit          |                                |                     |               |
|                          |                                |                     |               |
| Crop 1: ALLCE onion      |                                | Variety: see com    | ments         |
| Planting Date: Nov-05-0  | 8 Planting Method:             | _                   |               |
|                          |                                | erennial Age:       |               |
|                          | _ Spacing Within Row: 4        |                     |               |
|                          | f Soil Moisture: dry           |                     |               |
|                          |                                |                     |               |
|                          | SITE AND DESIGN                |                     |               |
| Plot Width, Unit: 6      | FT Plot Length, Unit: 2        | 5 FT Reps:          | 3             |
| Site Type: Vidalia C     | nion Research Farm             | -                   |               |
| Tillage Type: Convention | onal Study Design: S           | PLIT-PLOT           |               |
|                          |                                |                     |               |
| Trial Initiation Commen  | ts:                            |                     |               |
|                          |                                |                     |               |
| Previous Crops           | Provious Po                    | etidides            | Vear          |

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

Soil Name: Fert. Level:

### ADDITIONAL MEASURED ELEMENTS

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

#### MOISTURE CONDITIONS

|    | Date | Time | Amount | Unit | Туре | Interval | Unit |
|----|------|------|--------|------|------|----------|------|
| 1. |      |      |        |      |      |          |      |

Overall Moisture Conditions: Closest Weather Station: \_\_\_\_\_ Distance: \_\_\_\_ Unit: \_\_

### APPLICATION DESCRIPTION

|                                 | A         |
|---------------------------------|-----------|
| Application Date:               | Nov-05-07 |
| Time of Day:                    | 10:15 am  |
| Application Method:             | broadcast |
| Application Timing:             | pre-app   |
| Applic. Placement:              | on soil   |
| Air Temp., Unit:                | 65 f      |
| <pre>% Relative Humidity:</pre> | 52        |
| Wind Velocity, Unit:            | 3 mph     |
| Dew Presence (Y/N):             | n         |
| Water Hardness:                 |           |
| Soil Temp., Unit:               | 60 f      |
| Soil Moisture:                  | dry       |
| % Cloud Cover:                  | 0         |

### CROP STAGE AT EACH APPLICATION

|                     | A         |
|---------------------|-----------|
| Crop 1 Code, Stage: | ALLCE PRE |
| Stage Scale:        | not emerg |
| Height, Unit:       | 0 in      |

#### WEED STAGE AT EACH APPLICATION

|                     | A         |
|---------------------|-----------|
| Weed 1 Code, Stage: | LAMAM PRE |
| Stage Scale:        | not emerg |
| Density, Unit:      | 8 ydsq    |

### APPLICATION EQUIPMENT

|                       | A        |
|-----------------------|----------|
| Appl. Equipment:      | backpack |
| Operating Pressure:   | 24       |
| Nozzle Type:          | flat fan |
| Nozzle Size:          | 11002    |
| Nozzle Spacing, Unit: | 18 in    |
| Nozzles/Row:          | 2        |
| Band Width, Unit:     |          |
| Boom Length, Unit:    | 4.5 ft   |
| Boom Height, Unit:    | 15 in    |
| Ground Speed, Unit:   | 3 mph    |
| Incorporation Equip.: |          |
| Hours to Incorp.:     |          |
| Incorp. Depth, Unit:  |          |
| Carrier:              | water    |
| Spray Volume, Unit:   | 14.8 GPA |
| Spray pH:             |          |
| Propellant:           | CO2      |
| Tank Mix (Y/N):       | Y        |

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