

# University of Georgia

## Pepper and weed response to Paladin Pic alone or in a system with Devrinol and/or Dual Magnum

Trial ID: Veg6-10

Study Dir.: Stanley Culpepper

Location: Ponder Farm

Investigator: Stanley Culpepper

Use 3 liters(s) per treatment mixture to spray 25 gal/ac

Plots: 6 by 30 feet

| Trt No. | Treatment Name                                      | Form Conc | Form Type | Rate    | Rate Unit       | Grow Stg         | Appl Code | Amt Product to Measure     | Plot No. 1 | By 2 | Rep 3 |
|---------|-----------------------------------------------------|-----------|-----------|---------|-----------------|------------------|-----------|----------------------------|------------|------|-------|
| 1       | no fumigant or herbicide<br>No post                 |           |           |         |                 |                  |           |                            | 101        | 220  | 313   |
| 2       | no fumigant or herbicide<br>Dual Magnum             | 7.64      | L         | 12      | oz/a            | POST             | B         | 11.25 ml/mx                | 102        | 219  | 314   |
| 3       | Paladin+Pic 79:21: 40GPA<br>No post                 |           |           |         |                 |                  |           |                            | 103        | 212  | 319   |
| 4       | Paladin+Pic 79:21: 40GPA<br>Dual Magnum             | 7.64      | L         | 12      | oz/a            | POST             | B         | 11.25 ml/mx                | 104        | 211  | 320   |
| 5       | Paladin+Pic 79:21: 50GPA<br>No post                 |           |           |         |                 |                  |           |                            | 105        | 204  | 301   |
| 6       | Paladin+Pic 79:21: 50GPA<br>Dual Magnum             | 7.64      | L         | 12      | oz/a            | POST             | B         | 11.25 ml/mx                | 106        | 203  | 302   |
| 7       | Paladin+Pic 79:21: 60GPA<br>No post                 |           |           |         |                 |                  |           |                            | 107        | 214  | 317   |
| 8       | Paladin+Pic 79:21: 60GPA<br>Dual Magnum             | 7.64      | L         | 12      | oz/a            | POST             | B         | 11.25 ml/mx                | 108        | 213  | 318   |
| 9       | Paladin+Pic 79:21: 40GPA<br>Devrinol<br>No post     | 2         | EC        | 1       | lb ai/a         | under mu         | A         | 59.99 ml/mx                | 109        | 210  | 305   |
| 10      | Paladin+Pic 79:21: 40GPA<br>Devrinol<br>Dual Magnum | 2<br>7.64 | EC<br>L   | 1<br>12 | lb ai/a<br>oz/a | under mu<br>POST | A<br>B    | 59.99 ml/mx<br>11.25 ml/mx | 110        | 209  | 306   |
| 11      | Paladin+Pic 79:21: 50GPA<br>Devrinol<br>No post     | 2         | EC        | 1       | lb ai/a         | under mu         | A         | 59.99 ml/mx                | 111        | 202  | 315   |
| 12      | Paladin+Pic 79:21: 50GPA<br>Devrinol<br>Dual Magnum | 2<br>7.64 | EC<br>L   | 1<br>12 | lb ai/a<br>oz/a | under mu<br>POST | A<br>B    | 59.99 ml/mx<br>11.25 ml/mx | 112        | 201  | 316   |
| 13      | Paladin+Pic 79:21: 60GPA<br>Devrinol<br>No post     | 2         | EC        | 1       | lb ai/a         | under mu         | A         | 59.99 ml/mx                | 113        | 218  | 307   |
| 14      | Paladin+Pic 79:21: 60GPA<br>Devrinol<br>Dual Magnum | 2<br>7.64 | EC<br>L   | 1<br>12 | lb ai/a<br>oz/a | under mu<br>POST | A<br>B    | 59.99 ml/mx<br>11.25 ml/mx | 114        | 217  | 308   |
| 15      | Paladin+Pic 79:21: 40GPA<br>Devrinol<br>No post     | 2         | EC        | 2       | lb ai/a         | under mu         | A         | 120.0 ml/mx                | 115        | 208  | 311   |
| 16      | Paladin+Pic 79:21: 40GPA<br>Devrinol<br>Dual Magnum | 2<br>7.64 | EC<br>L   | 2<br>12 | lb ai/a<br>oz/a | under mu<br>POST | A<br>B    | 120.0 ml/mx<br>11.25 ml/mx | 116        | 207  | 312   |
| 17      | Paladin+Pic 79:21: 50GPA<br>Devrinol<br>No post     | 2         | EC        | 2       | lb ai/a         | under mu         | A         | 120.0 ml/mx                | 117        | 206  | 309   |
| 18      | Paladin+Pic 79:21: 50GPA<br>Devrinol<br>Dual Magnum | 2<br>7.64 | EC<br>L   | 2<br>12 | lb ai/a<br>oz/a | under mu<br>POST | A<br>B    | 120.0 ml/mx<br>11.25 ml/mx | 118        | 205  | 310   |

# University of Georgia

Use 3 liters(s) per treatment mixture to spray 25 gal/ac

Plots: 6 by 30 feet

| Trt No. | Treatment Name                                      | Form Conc | Form Type | Rate Rate | Rate Unit       | Grow Stg         | Appl Code | Amt to Measure             | Product | Plot No. 1 | By Rep 2 | Rep 3 |
|---------|-----------------------------------------------------|-----------|-----------|-----------|-----------------|------------------|-----------|----------------------------|---------|------------|----------|-------|
| 19      | Paladin+Pic 79:21: 60GPA<br>Devrinol<br>No post     | 2         | EC        | 2         | lb ai/a         | under mu         | A         | 120.0 ml/mx                |         | 119        | 216      | 303   |
| 20      | Paladin+Pic 79:21: 60GPA<br>Devrinol<br>Dual Magnum | 2<br>7.64 | EC<br>L   | 2<br>12   | lb ai/a<br>oz/a | under mu<br>POST | A<br>B    | 120.0 ml/mx<br>11.25 ml/mx |         | 120        | 215      | 304   |

Sort Order: Treatment

## Trial Comments

OBJECTIVE: Develop the most effective Paladin + Pic system.

### VISUAL INJURY:

1. Dual Magnum was applied 1 d after transplant in an effort to facilitate a worst case injury scenario. The GA label will require a 5 d window from planting until application. Regardless, the greatest level of injury was 6%.

### VISUAL NUTSEDGE CONTROL:

1. Dual POST provided essentially no control as expected.  
 2. At planting, 1 DMDS + PIC at all rates provided at least 94% control.  
 3. At 2, 5, and 8 WAP, control was at least 93% by all fumigant systems except 1) DMDS + PIC at 40 G, 2) DMDS + PIC at 40 G plus Dual, and 3) DMDS + PIC at 50 G.

### VISUAL CRABGRASS CONTROL:

1. POST applications of Dual (applied within two days of hole poking) provided 87 to 93% control throughout the season.  
 2. DMDS + PIC at 40, 50, and 60 G provided only 6 to 27% control when nearing harvest.  
 3. The addition of Devrinol (either 1 or 2 lb) to DMDS + PIC at 40, 50, and 60 G improved control to 72, 85 and 90-94%, respectively.  
 4. When DMDS + PIC included Devrinol followed by Dual POST control was at least 92% throughout the season.

### VISUAL PALMER CONTROL:

1. POST applications of Dual (applied within two days of hole poking) provided 96 to 99% control throughout the season.  
 2. Any system with Dual and or Devrinol provided at least 94% control throughout the season.  
 3. DMDS + PIC at 40, 50, and 60 G provided only 50, 70, and 89% control when nearing harvest, respectively.

### GAS MEASUREMENTS:

1. Measurements were taken with the Mini Rae (for what thats worth).  
 2. Data was extremely variable as always but data showed a trend for higher concentrations with higher rates. Measurements of 631 PPM were taken the day before planting and no crop stunting was noted.

### WEED COUNTS:

1. Nutsedge, Palmer, and crabgrass counts noted trends similar to that for visual control.  
 2. Carpetweed was also noted in some plant holes. Dual POST control about 75% of the carpetweed while Paladin at 40 G reduced mid-season emergence by about 93%. All other systems effectively controlled carpetweed.

### PEPPER HEIGHTS:

1. Twenty plant heights per plot was measured 2 and 4 WAP.  
 2. Pepper in treated plots were at least as large as those in the non-treated control.

### PEPPER YIELD:

1. Jumbo pepper were harvested 3 times by a farmers crew.  
 2. Pepper yield was influenced to the greatest degree by grass control followed by Palmer control.  
 3. Clearly the most consistently effective systems were those with Devrinol and Dual in combination with Paladin Pic.

### CONCLUSIONS:

1. This study has developed the most effective systems approach for fumigated plasticulture with Paladin Pic plus Devrinol applied at time of laying the mulch followed by a POST Dual application 5 to 10 days after transplanting. If results can be replicated in 2011 then a recommended program should be finalized for pepper and tomato growers that provides excellent season long pest control.

# University of Georgia

## Pepper and weed response to Paladin Pic alone or in a system with Devrinol and/or Dual Magnum

Trial ID: Veg6-10  
Location: Ponder Farm

Study Dir.: Stanley Culpepper  
Investigator: Stanley Culpepper

|                  |          |           |          |           |           |           |          |
|------------------|----------|-----------|----------|-----------|-----------|-----------|----------|
| Weed Code        |          |           |          |           | CYPES     | CYPES     | CYPES    |
| Crop Code        |          |           |          |           |           |           |          |
| Rating Data Type | CPSAN    | CPSAN     | CPSAN    | CPSAN     | CONTROL   | CONTROL   | CONTROL  |
| Rating Unit      | INJURY   | INJURY    | INJURY   | INJURY    | %         | %         | %        |
| Rating Date      | 4/7/2010 | 4/15/2010 | 5/5/2010 | 5/28/2010 | 3/26/2010 | 4/15/2010 | 5/5/2010 |
| Crop Stage       |          |           |          |           |           |           |          |
| Crop Stage Scale |          |           |          |           |           |           |          |
| ARM Action Codes |          |           |          |           |           |           |          |

| Trt No.            | Treatment Name                          | Rate | Rate Unit | 1     | 2     | 3    | 4    | 6      | 7      | 8      |   |
|--------------------|-----------------------------------------|------|-----------|-------|-------|------|------|--------|--------|--------|---|
| 1                  | no fumigant or herbicide<br>No post     |      |           | 0.0   | c     | 0.0  | b    | 0.0    | a      | 0.0    | d |
| 2                  | no fumigant or herbicide<br>Dual Magnum | 12   | oz/a      | 7.3   | a     | 4.0  | a    | 0.0    | a      | 13.3   | c |
| 3                  | Paladin+Pic 79:21: 40GPA<br>No post     |      |           | 0.0   | c     | 0.0  | b    | 0.0    | a      | 95.3   | b |
| 4                  | Paladin+Pic 79:21: 40GPA<br>Dual Magnum | 12   | oz/a      | 6.0   | b     | 4.7  | a    | 0.0    | a      | 94.3   | b |
| 5                  | Paladin+Pic 79:21: 50GPA<br>No post     |      |           | 0.0   | c     | 0.0  | b    | 0.0    | a      | 99.0   | a |
| 6                  | Paladin+Pic 79:21: 50GPA<br>Dual Magnum | 12   | oz/a      | 6.3   | ab    | 5.3  | a    | 0.0    | a      | 99.0   | a |
| 7                  | Paladin+Pic 79:21: 60GPA<br>No post     |      |           | 0.0   | c     | 0.0  | b    | 0.0    | a      | 99.0   | a |
| 8                  | Paladin+Pic 79:21: 60GPA<br>Dual Magnum | 12   | oz/a      | 6.7   | ab    | 5.3  | a    | 0.0    | a      | 99.0   | a |
| 9                  | Paladin+Pic 79:21: 40GPA<br>Devrinol    | 1    | lb ai/a   | 0.0   | c     | 0.0  | b    | 0.0    | a      | 98.7   | a |
| 10                 | Paladin+Pic 79:21: 40GPA<br>Devrinol    | 1    | lb ai/a   | 6.3   | ab    | 5.3  | a    | 0.0    | a      | 98.0   | a |
| 11                 | Paladin+Pic 79:21: 50GPA<br>Dual Magnum | 12   | oz/a      | 0.0   | c     | 0.0  | b    | 0.0    | a      | 99.0   | a |
| 12                 | Paladin+Pic 79:21: 50GPA<br>Devrinol    | 1    | lb ai/a   | 0.0   | c     | 0.0  | b    | 0.0    | a      | 99.0   | a |
| 13                 | Paladin+Pic 79:21: 60GPA<br>Dual Magnum | 12   | oz/a      | 7.3   | a     | 5.3  | a    | 0.0    | a      | 99.0   | a |
| 14                 | Paladin+Pic 79:21: 60GPA<br>Devrinol    | 1    | lb ai/a   | 0.0   | c     | 0.0  | b    | 0.0    | a      | 99.0   | a |
| 15                 | Paladin+Pic 79:21: 60GPA<br>Dual Magnum | 12   | oz/a      | 0.0   | c     | 0.0  | b    | 0.0    | a      | 99.0   | a |
| 16                 | Paladin+Pic 79:21: 40GPA<br>Devrinol    | 2    | lb ai/a   | 0.0   | c     | 0.0  | b    | 0.0    | a      | 99.0   | a |
| 17                 | Paladin+Pic 79:21: 40GPA<br>Dual Magnum | 12   | oz/a      | 6.3   | ab    | 4.7  | a    | 0.0    | a      | 99.0   | a |
| 18                 | Paladin+Pic 79:21: 50GPA<br>Devrinol    | 2    | lb ai/a   | 0.0   | c     | 0.0  | b    | 0.0    | a      | 99.0   | a |
| 19                 | Paladin+Pic 79:21: 50GPA<br>Dual Magnum | 12   | oz/a      | 6.3   | ab    | 5.3  | a    | 0.0    | a      | 99.0   | a |
| 20                 | Paladin+Pic 79:21: 60GPA<br>Devrinol    | 2    | lb ai/a   | 0.0   | c     | 0.0  | b    | 0.0    | a      | 99.0   | a |
|                    | Paladin+Pic 79:21: 60GPA<br>Dual Magnum | 12   | oz/a      | 6.3   | ab    | 5.7  | a    | 0.0    | a      | 99.0   | a |
| LSD (P=.05)        |                                         |      |           | 1.24  | 2.23  | 0.00 | 0.00 | 2.29   | 4.49   | 5.15   |   |
| Standard Deviation |                                         |      |           | 0.75  | 1.35  | 0.00 | 0.00 | 1.39   | 2.72   | 3.12   |   |
| CV                 |                                         |      |           | 23.01 | 53.46 | 0.0  | 0.0  | 1.56   | 3.12   | 3.63   |   |
| Bartlett's X2      |                                         |      |           | 0.543 | 9.472 | 0.0  | 0.0  | 14.402 | 22.496 | 25.213 |   |
| P(Bartlett's X2)   |                                         |      |           | 1.00  | 0.395 | .    | .    | 0.006* | 0.013* | 0.09   |   |

# University of Georgia

Weed Code

Crop Code

Rating Data Type

Rating Unit

Rating Date

Crop Stage

Crop Stage Scale

ARM Action Codes

|  |          |           |          |           |           |           |          |
|--|----------|-----------|----------|-----------|-----------|-----------|----------|
|  | CPSAN    | CPSAN     | CPSAN    | CPSAN     | CYPES     | CYPES     | CYPES    |
|  | INJURY   | INJURY    | INJURY   | INJURY    | CONTROL   | CONTROL   | CONTROL  |
|  | %        | %         | %        | %         | %         | %         | %        |
|  | 4/7/2010 | 4/15/2010 | 5/5/2010 | 5/28/2010 | 3/26/2010 | 4/15/2010 | 5/5/2010 |

Trt Treatment

No. Name

|  |      |      |
|--|------|------|
|  | Rate | Unit |
|--|------|------|

|                   |        |        |        |        |          |         |         |
|-------------------|--------|--------|--------|--------|----------|---------|---------|
|                   | 1      | 2      | 3      | 4      | 6        | 7       | 8       |
| Replicate F       | 12.863 | 2.081  | 0.000  | 0.000  | 0.837    | 4.494   | 2.859   |
| Replicate Prob(F) | 0.0001 | 0.1388 | 1.0000 | 1.0000 | 0.4410   | 0.0177  | 0.0697  |
| Treatment F       | 60.161 | 11.237 | 0.000  | 0.000  | 1249.120 | 366.591 | 269.929 |
| Treatment Prob(F) | 0.0001 | 0.0001 | 1.0000 | 1.0000 | 0.0001   | 0.0001  | 0.0001  |

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

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

| Weed Code        | CYPES     | DIGSA     | DIGSA    | DIGSA     | AMAPA     | AMAPA    | AMAPA     |
|------------------|-----------|-----------|----------|-----------|-----------|----------|-----------|
| Crop Code        |           |           |          |           |           |          |           |
| Rating Data Type | CONTROL   | CONTROL   | CONTROL  | CONTROL   | CONTROL   | CONTROL  | CONTROL   |
| Rating Unit      | %         | %         | %        | %         | %         | %        | %         |
| Rating Date      | 5/28/2010 | 4/15/2010 | 5/5/2010 | 5/28/2010 | 4/15/2010 | 5/5/2010 | 5/28/2010 |
| Crop Stage       |           |           |          |           |           |          |           |
| Crop Stage Scale |           |           |          |           |           |          |           |
| ARM Action Codes |           |           |          |           |           |          |           |

| Trt No.            | Treatment Name                                      | Rate |         |         |     |        |   |        |     |        |     |         |   |        |   |        |    |
|--------------------|-----------------------------------------------------|------|---------|---------|-----|--------|---|--------|-----|--------|-----|---------|---|--------|---|--------|----|
|                    |                                                     | Rate | Unit    | 9       |     | 11     |   | 12     |     | 13     |     | 15      |   | 16     |   | 17     |    |
| 1                  | no fumigant or herbicide<br>No post                 | 12   | oz/a    | 0.0     | e   | 0.0    | d | 0.0    | f   | 0.0    | g   | 0.0     | c | 0.0    | d | 0.0    | e  |
| 2                  | no fumigant or herbicide<br>Dual Magnum             |      |         | 0.0     | e   | 93.0   | a | 89.7   | abc | 87.7   | a-d | 99.0    | a | 96.0   | a | 96.0   | ab |
| 3                  | Paladin+Pic 79:21: 40GPA<br>No post                 |      |         | 81.7    | d   | 33.3   | c | 20.0   | e   | 6.7    | g   | 84.7    | b | 63.0   | c | 50.0   | d  |
| 4                  | Paladin+Pic 79:21: 40GPA<br>Dual Magnum             | 12   | oz/a    | 81.7    | d   | 96.0   | a | 88.3   | abc | 82.7   | de  | 96.0    | a | 94.3   | a | 92.7   | ab |
| 5                  | Paladin+Pic 79:21: 50GPA<br>No post                 |      |         | 90.0    | c   | 61.7   | b | 53.3   | d   | 26.7   | f   | 99.0    | a | 81.3   | b | 70.0   | c  |
| 6                  | Paladin+Pic 79:21: 50GPA<br>Dual Magnum             |      |         | 93.3    | bc  | 92.7   | a | 76.0   | c   | 83.3   | cd  | 99.0    | a | 99.0   | a | 98.7   | a  |
| 7                  | Paladin+Pic 79:21: 60GPA<br>No post                 | 12   | oz/a    | 97.3    | ab  | 72.7   | b | 56.7   | d   | 26.7   | f   | 99.0    | a | 95.7   | a | 89.0   | b  |
| 8                  | Paladin+Pic 79:21: 60GPA<br>Dual Magnum             |      |         | 97.3    | ab  | 94.7   | a | 88.3   | abc | 87.7   | a-d | 99.0    | a | 99.0   | a | 99.0   | a  |
| 9                  | Paladin+Pic 79:21: 40GPA<br>Devrinol                |      |         | 93.3    | bc  | 86.3   | a | 82.7   | bc  | 71.7   | e   | 99.0    | a | 99.0   | a | 99.0   | a  |
| 10                 | No post<br>Paladin+Pic 79:21: 40GPA<br>Devrinol     | 1    | lb ai/a | 93.3    | bc  | 99.0   | a | 93.7   | ab  | 91.7   | a-d | 99.0    | a | 99.0   | a | 99.0   | a  |
| 11                 | Dual Magnum<br>Paladin+Pic 79:21: 50GPA<br>Devrinol | 12   | oz/a    | 99.0    | a   | 97.0   | a | 90.0   | abc | 85.0   | bcd | 99.0    | a | 98.7   | a | 99.0   | a  |
| 12                 | No post<br>Paladin+Pic 79:21: 50GPA<br>Devrinol     | 1    | lb ai/a | 98.0    | ab  | 99.0   | a | 98.7   | a   | 95.7   | ab  | 99.0    | a | 99.0   | a | 99.0   | a  |
| 13                 | Dual Magnum<br>Paladin+Pic 79:21: 60GPA<br>Devrinol | 12   | oz/a    | 96.3    | ab  | 99.0   | a | 93.0   | ab  | 90.0   | a-d | 99.0    | a | 99.0   | a | 99.0   | a  |
| 14                 | No post<br>Paladin+Pic 79:21: 60GPA<br>Devrinol     | 1    | lb ai/a | 95.7    | ab  | 99.0   | a | 98.7   | a   | 95.3   | ab  | 99.0    | a | 99.0   | a | 99.0   | a  |
| 15                 | Dual Magnum<br>Paladin+Pic 79:21: 40GPA<br>Devrinol | 12   | oz/a    | 92.7    | bc  | 96.7   | a | 86.7   | abc | 71.7   | e   | 99.0    | a | 96.0   | a | 94.3   | ab |
| 16                 | No post<br>Paladin+Pic 79:21: 40GPA<br>Devrinol     | 2    | lb ai/a | 93.0    | bc  | 99.0   | a | 97.3   | ab  | 92.3   | a-d | 99.0    | a | 99.0   | a | 99.0   | a  |
| 17                 | Dual Magnum<br>Paladin+Pic 79:21: 50GPA<br>Devrinol | 12   | oz/a    | 96.0    | ab  | 99.0   | a | 90.7   | abc | 85.0   | bcd | 99.0    | a | 99.0   | a | 99.0   | a  |
| 18                 | No post<br>Paladin+Pic 79:21: 50GPA<br>Devrinol     | 2    | lb ai/a | 94.7    | abc | 99.0   | a | 98.7   | a   | 95.7   | ab  | 99.0    | a | 99.0   | a | 99.0   | a  |
| 19                 | Dual Magnum<br>Paladin+Pic 79:21: 60GPA<br>Devrinol | 12   | oz/a    | 94.0    | abc | 99.0   | a | 95.7   | ab  | 94.3   | abc | 99.0    | a | 99.0   | a | 99.0   | a  |
| 20                 | No post<br>Paladin+Pic 79:21: 60GPA<br>Devrinol     | 2    | lb ai/a | 95.0    | abc | 99.0   | a | 98.7   | a   | 97.7   | a   | 99.0    | a | 99.0   | a | 99.0   | a  |
|                    | Dual Magnum                                         | 12   | oz/a    |         |     |        |   |        |     |        |     |         |   |        |   |        |    |
| LSD (P=.05)        |                                                     |      |         | 5.36    |     | 13.16  |   | 14.97  |     | 11.28  |     | 5.02    |   | 12.44  |   | 7.25   |    |
| Standard Deviation |                                                     |      |         | 3.25    |     | 7.97   |   | 9.07   |     | 6.84   |     | 3.04    |   | 7.54   |   | 4.39   |    |
| CV                 |                                                     |      |         | 3.86    |     | 9.3    |   | 11.36  |     | 9.32   |     | 3.26    |   | 8.32   |   | 4.94   |    |
| Bartlett's X2      |                                                     |      |         | 17.546  |     | 22.922 |   | 65.63  |     | 16.051 |     | 1.395   |   | 32.177 |   | 9.837  |    |
| P(Bartlett's X2)   |                                                     |      |         | 0.351   |     | 0.006* |   | 0.001* |     | 0.589  |     | 0.238   |   | 0.001* |   | 0.132  |    |
| Replicate F        |                                                     |      |         | 2.116   |     | 0.229  |   | 0.161  |     | 1.627  |     | 1.239   |   | 0.750  |   | 1.691  |    |
| Replicate Prob(F)  |                                                     |      |         | 0.1344  |     | 0.7965 |   | 0.8521 |     | 0.2099 |     | 0.3012  |   | 0.4793 |   | 0.1978 |    |
| Treatment F        |                                                     |      |         | 241.372 |     | 32.198 |   | 26.998 |     | 62.627 |     | 159.304 |   | 27.942 |   | 91.603 |    |
| Treatment Prob(F)  |                                                     |      |         | 0.0001  |     | 0.0001 |   | 0.0001 |     | 0.0001 |     | 0.0001  |   | 0.0001 |   | 0.0001 |    |

# University of Georgia

|                  |           |           |          |           |           |          |           |
|------------------|-----------|-----------|----------|-----------|-----------|----------|-----------|
| Weed Code        | CYPES     | DIGSA     | DIGSA    | DIGSA     | AMAPA     | AMAPA    | AMAPA     |
| Crop Code        |           |           |          |           |           |          |           |
| Rating Data Type | CONTROL   | CONTROL   | CONTROL  | CONTROL   | CONTROL   | CONTROL  | CONTROL   |
| Rating Unit      | %         | %         | %        | %         | %         | %        | %         |
| Rating Date      | 5/28/2010 | 4/15/2010 | 5/5/2010 | 5/28/2010 | 4/15/2010 | 5/5/2010 | 5/28/2010 |
| Crop Stage       |           |           |          |           |           |          |           |
| Crop Stage Scale |           |           |          |           |           |          |           |
| ARM Action Codes |           |           |          |           |           |          |           |

| Trt | Treatment | Rate | Unit | 9 | 11 | 12 | 13 | 15 | 16 | 17 |
|-----|-----------|------|------|---|----|----|----|----|----|----|
| No. | Name      | Rate | Unit |   |    |    |    |    |    |    |

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

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

| Weed Code        |             |             | CYPES     | CYPES     | AMAPA     | AMAPA     | DIGSA     |
|------------------|-------------|-------------|-----------|-----------|-----------|-----------|-----------|
| Crop Code        |             |             |           |           |           |           |           |
| Rating Data Type | GAS READING | GAS READING | Counts    | Counts    | Counts    | Counts    | Counts    |
| Rating Unit      | PPM         | PPM         | #/plot    | #/plot    | #/plot    | #/plot    | #/plot    |
| Rating Date      | 3/19/2010   | 3/30/2010   | 4/14/2010 | 4/28/2010 | 4/14/2010 | 4/28/2010 | 4/14/2010 |
| Crop Stage       |             |             |           |           |           |           |           |
| Crop Stage Scale |             |             |           |           |           |           |           |
| ARM Action Codes |             |             |           |           |           |           |           |

| Trt No.            | Treatment Name                          | Rate |         | Rate    |    |         |     |         |    |        |    |        |    |        |    |         |     |
|--------------------|-----------------------------------------|------|---------|---------|----|---------|-----|---------|----|--------|----|--------|----|--------|----|---------|-----|
|                    |                                         | Rate | Unit    | 19      | 20 |         | 22  |         | 23 |        | 25 |        | 26 |        | 28 |         |     |
| 1                  | no fumigant or herbicide<br>No post     | 12   | oz/a    | 10.93   | b  | 19.40   | d   | 223.3   | a  | 259.7  | a  | 7.0    | a  | 11.0   | a  | 96.0    | a   |
| 2                  | no fumigant or herbicide<br>Dual Magnum |      |         | 10.93   | b  | 19.40   | d   | 207.7   | a  | 248.0  | a  | 0.7    | c  | 1.0    | ef | 1.0     | ef  |
| 3                  | Paladin+Pic 79:21: 40GPA<br>No post     |      |         | 259.73  | b  | 182.80  | bcd | 35.0    | b  | 54.3   | b  | 6.0    | a  | 6.7    | b  | 87.3    | b   |
| 4                  | Paladin+Pic 79:21: 40GPA<br>Dual Magnum | 12   | oz/a    | 259.73  | b  | 182.80  | bcd | 44.0    | b  | 53.3   | b  | 0.0    | c  | 1.7    | de | 2.0     | ef  |
| 5                  | Paladin+Pic 79:21: 50GPA<br>No post     |      |         | 888.67  | ab | 348.33  | b   | 7.3     | c  | 13.0   | c  | 4.0    | b  | 3.7    | c  | 22.3    | c   |
| 6                  | Paladin+Pic 79:21: 50GPA<br>Dual Magnum |      |         | 888.67  | ab | 348.33  | b   | 2.7     | c  | 9.7    | c  | 0.0    | c  | 0.3    | fg | 4.0     | def |
| 7                  | Paladin+Pic 79:21: 60GPA<br>No post     | 12   | oz/a    | 1382.67 | a  | 296.97  | bc  | 1.0     | c  | 1.3    | c  | 0.0    | c  | 2.0    | d  | 26.3    | c   |
| 8                  | Paladin+Pic 79:21: 60GPA<br>Dual Magnum |      |         | 1382.67 | a  | 296.97  | bc  | 1.7     | c  | 8.7    | c  | 0.0    | c  | 0.0    | g  | 8.0     | de  |
| 9                  | Paladin+Pic 79:21: 40GPA<br>Devrinol    |      |         | 266.47  | b  | 83.00   | cd  | 10.0    | c  | 13.7   | c  | 0.0    | c  | 0.0    | g  | 10.0    | d   |
| 10                 | Paladin+Pic 79:21: 40GPA<br>Devrinol    | 1    | lb ai/a | 266.47  | b  | 83.00   | cd  | 10.7    | c  | 16.7   | c  | 0.0    | c  | 0.0    | g  | 0.0     | f   |
| 11                 | Paladin+Pic 79:21: 50GPA<br>Devrinol    | 12   | oz/a    | 793.33  | ab | 273.93  | bcd | 2.3     | c  | 5.7    | c  | 0.0    | c  | 0.0    | g  | 1.7     | ef  |
| 12                 | Paladin+Pic 79:21: 50GPA<br>Devrinol    | 1    | lb ai/a | 793.33  | ab | 273.93  | bcd | 2.0     | c  | 2.3    | c  | 0.0    | c  | 0.0    | g  | 0.0     | f   |
| 13                 | Paladin+Pic 79:21: 60GPA<br>Devrinol    | 12   | oz/a    | 695.33  | ab | 659.00  | a   | 1.7     | c  | 3.3    | c  | 0.0    | c  | 0.0    | g  | 0.3     | f   |
| 14                 | Paladin+Pic 79:21: 60GPA<br>Devrinol    | 1    | lb ai/a | 695.33  | ab | 659.00  | a   | 0.3     | c  | 2.7    | c  | 0.0    | c  | 0.0    | g  | 0.0     | f   |
| 15                 | Paladin+Pic 79:21: 40GPA<br>Devrinol    | 12   | oz/a    | 354.67  | b  | 194.03  | bcd | 3.3     | c  | 10.7   | c  | 0.0    | c  | 1.7    | de | 0.0     | f   |
| 16                 | Paladin+Pic 79:21: 40GPA<br>Devrinol    | 2    | lb ai/a | 354.67  | b  | 194.03  | bcd | 5.3     | c  | 14.3   | c  | 0.0    | c  | 0.0    | g  | 0.0     | f   |
| 17                 | Paladin+Pic 79:21: 50GPA<br>Devrinol    | 12   | oz/a    | 714.00  | ab | 335.00  | bc  | 1.3     | c  | 4.0    | c  | 0.0    | c  | 0.0    | g  | 0.0     | f   |
| 18                 | Paladin+Pic 79:21: 50GPA<br>Devrinol    | 2    | lb ai/a | 714.00  | ab | 335.00  | bc  | 1.7     | c  | 9.3    | c  | 0.0    | c  | 0.0    | g  | 0.3     | f   |
| 19                 | Paladin+Pic 79:21: 60GPA<br>Devrinol    | 12   | oz/a    | 1311.67 | a  | 631.00  | a   | 0.0     | c  | 2.0    | c  | 0.0    | c  | 0.0    | g  | 0.0     | f   |
| 20                 | Paladin+Pic 79:21: 60GPA<br>Devrinol    | 2    | lb ai/a | 1311.67 | a  | 631.00  | a   | 0.3     | c  | 1.0    | c  | 0.0    | c  | 0.0    | g  | 0.0     | f   |
|                    | Dual Magnum                             | 12   | oz/a    |         |    |         |     |         |    |        |    |        |    |        |    |         |     |
| LSD (P=.05)        |                                         |      |         | 893.561 |    | 254.618 |     | 21.50   |    | 22.64  |    | 1.43   |    | 0.97   |    | 7.41    |     |
| Standard Deviation |                                         |      |         | 541.507 |    | 154.301 |     | 13.03   |    | 13.72  |    | 0.87   |    | 0.59   |    | 4.49    |     |
| CV                 |                                         |      |         | 81.09   |    | 51.03   |     | 46.4    |    | 37.39  |    | 98.27  |    | 41.83  |    | 34.65   |     |
| Bartlett's X2      |                                         |      |         | 54.509  |    | 36.391  |     | 110.969 |    | 82.241 |    | 3.994  |    | 5.045  |    | 29.893  |     |
| P(Bartlett's X2)   |                                         |      |         | 0.001*  |    | 0.009*  |     | 0.001*  |    | 0.001* |    | 0.136  |    | 0.538  |    | 0.002*  |     |
| Replicate F        |                                         |      |         | 0.464   |    | 6.051   |     | 1.744   |    | 2.783  |    | 1.349  |    | 0.437  |    | 1.116   |     |
| Replicate Prob(F)  |                                         |      |         | 0.6325  |    | 0.0052  |     | 0.1886  |    | 0.0745 |    | 0.2716 |    | 0.6490 |    | 0.3382  |     |
| Treatment F        |                                         |      |         | 1.992   |    | 5.218   |     | 75.079  |    | 91.546 |    | 17.987 |    | 69.217 |    | 116.255 |     |
| Treatment Prob(F)  |                                         |      |         | 0.0348  |    | 0.0001  |     | 0.0001  |    | 0.0001 |    | 0.0001 |    | 0.0001 |    | 0.0001  |     |

# University of Georgia

|                  |           |             |             |           |           |           |           |           |    |    |
|------------------|-----------|-------------|-------------|-----------|-----------|-----------|-----------|-----------|----|----|
| Weed Code        |           |             |             | CYPES     | CYPES     | AMAPA     | AMAPA     | DIGSA     |    |    |
| Crop Code        |           |             |             |           |           |           |           |           |    |    |
| Rating Data Type |           | GAS READING | GAS READING | Counts    | Counts    | Counts    | Counts    | Counts    |    |    |
| Rating Unit      |           | PPM         | PPM         | #/plot    | #/plot    | #/plot    | #/plot    | #/plot    |    |    |
| Rating Date      |           | 3/19/2010   | 3/30/2010   | 4/14/2010 | 4/28/2010 | 4/14/2010 | 4/28/2010 | 4/14/2010 |    |    |
| Crop Stage       |           |             |             |           |           |           |           |           |    |    |
| Crop Stage Scale |           |             |             |           |           |           |           |           |    |    |
| ARM Action Codes |           |             |             |           |           |           |           |           |    |    |
| Trt              | Treatment | Rate        |             |           |           |           |           |           |    |    |
| No.              | Name      | Rate        | Unit        | 19        | 20        | 22        | 23        | 25        | 26 | 28 |

Means followed by same letter do not significantly differ (P=.05, LSD)  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

# University of Georgia

| Weed Code          | DIGSA                    | MOLVE     | MOLVE     | AVG20PLA  | AVG20PLA  | HAR1-3    | HAR1-3    |        |    |        |     |        |   |        |     |         |     |
|--------------------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|--------|----|--------|-----|--------|---|--------|-----|---------|-----|
| Crop Code          | CPSAN                    | CPSAN     | CPSAN     | CPSAN     | CPSAN     | CPSAN     | CPSAN     |        |    |        |     |        |   |        |     |         |     |
| Rating Data Type   | Counts                   | Counts    | Counts    | HEIGHTS   | HEIGHTS   | HAR 1-3   | HAR 1-3   |        |    |        |     |        |   |        |     |         |     |
| Rating Unit        | #/plot                   | #/plot    | #/plot    | CM        | CM        | #         | LBS       |        |    |        |     |        |   |        |     |         |     |
| Rating Date        | 4/28/2010                | 4/14/2010 | 4/28/2010 | 4/14/2010 | 4/28/2010 | 6/17/2010 | 6/17/2010 |        |    |        |     |        |   |        |     |         |     |
| Crop Stage         | AVG                      | AVG       | AVG       | AVG       | AVG       | #/PLOT    | LB/PLOT   |        |    |        |     |        |   |        |     |         |     |
| Crop Stage Scale   |                          |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| ARM Action Codes   | T1                       | T2        | T3        | T4        |           |           |           |        |    |        |     |        |   |        |     |         |     |
| Trt                | Treatment                | Rate      | Rate      |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| No.                | Name                     | Rate      | Unit      | 29        | 31        | 32        | 54        | 76     | 85 | 86     |     |        |   |        |     |         |     |
| 1                  | no fumigant or herbicide |           |           | 120.0     | a         | 93.3      | a         | 153.3  | a  | 14.867 | b-e | 21.800 | a | 31.7   | e   | 16.300  | e   |
| 2                  | No post                  |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 3                  | no fumigant or herbicide | 12        | oz/a      | 6.0       | def       | 6.3       | b         | 39.0   | b  | 15.750 | abc | 22.833 | a | 86.3   | ab  | 43.583  | a-d |
| 4                  | Dual Magnum              |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 5                  | Paladin+Pic 79:21: 40GPA |           |           | 100.3     | ab        | 0.0       | c         | 11.3   | c  | 14.900 | b-e | 22.167 | a | 34.7   | e   | 15.450  | e   |
| 6                  | No post                  |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 7                  | Paladin+Pic 79:21: 40GPA | 12        | oz/a      | 25.7      | cd        | 0.0       | c         | 10.7   | c  | 15.317 | a-d | 22.983 | a | 68.0   | bc  | 34.950  | cd  |
| 8                  | Dual Magnum              |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 9                  | Paladin+Pic 79:21: 50GPA |           |           | 86.3      | b         | 0.0       | c         | 1.0    | c  | 14.333 | de  | 20.950 | a | 42.3   | de  | 22.483  | e   |
| 10                 | No post                  |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 11                 | Paladin+Pic 79:21: 50GPA | 12        | oz/a      | 24.0      | cde       | 0.0       | c         | 0.0    | c  | 14.750 | b-e | 21.283 | a | 73.7   | abc | 40.400  | a-d |
| 12                 | Dual Magnum              |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 13                 | Paladin+Pic 79:21: 60GPA |           |           | 85.7      | b         | 0.0       | c         | 0.0    | c  | 14.483 | de  | 21.050 | a | 39.7   | e   | 21.750  | e   |
| 14                 | No post                  |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 15                 | Paladin+Pic 79:21: 60GPA | 12        | oz/a      | 25.7      | cd        | 0.0       | c         | 0.3    | c  | 14.033 | e   | 20.433 | a | 67.7   | bc  | 36.933  | cd  |
| 16                 | Dual Magnum              |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 17                 | Paladin+Pic 79:21: 40GPA | 1         | lb ai/a   | 29.0      | c         | 0.0       | c         | 0.0    | c  | 15.133 | a-e | 21.900 | a | 73.7   | abc | 42.183  | a-d |
| 18                 | Devrinol                 |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 19                 | No post                  |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 20                 | Paladin+Pic 79:21: 40GPA | 1         | lb ai/a   | 7.7       | c-f       | 0.0       | c         | 0.3    | c  | 15.867 | abc | 22.567 | a | 94.0   | a   | 49.217  | a   |
| 21                 | Devrinol                 | 1         | lb ai/a   |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 22                 | Dual Magnum              | 12        | oz/a      |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 23                 | Paladin+Pic 79:21: 50GPA | 1         | lb ai/a   | 15.7      | c-f       | 0.0       | c         | 0.0    | c  | 14.867 | b-e | 21.650 | a | 69.3   | bc  | 37.650  | bcd |
| 24                 | Devrinol                 | 1         | lb ai/a   |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 25                 | No post                  |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 26                 | Paladin+Pic 79:21: 50GPA | 1         | lb ai/a   | 4.0       | ef        | 0.0       | c         | 0.0    | c  | 15.367 | a-d | 21.633 | a | 72.3   | abc | 42.417  | a-d |
| 27                 | Devrinol                 | 12        | oz/a      |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 28                 | Dual Magnum              |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 29                 | Paladin+Pic 79:21: 60GPA | 1         | lb ai/a   | 14.7      | c-f       | 0.0       | c         | 0.3    | c  | 14.700 | b-e | 20.133 | a | 73.0   | abc | 40.017  | a-d |
| 30                 | Devrinol                 | 1         | lb ai/a   |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 31                 | No post                  |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 32                 | Paladin+Pic 79:21: 60GPA | 1         | lb ai/a   | 5.7       | def       | 0.0       | c         | 0.0    | c  | 15.333 | a-d | 20.883 | a | 86.3   | ab  | 45.583  | abc |
| 33                 | Devrinol                 | 12        | oz/a      |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 34                 | Dual Magnum              |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 35                 | Paladin+Pic 79:21: 40GPA | 2         | lb ai/a   | 15.3      | c-f       | 0.0       | c         | 2.7    | c  | 15.917 | ab  | 22.300 | a | 62.3   | cd  | 36.550  | cd  |
| 36                 | Devrinol                 | 2         | lb ai/a   |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 37                 | No post                  |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 38                 | Paladin+Pic 79:21: 40GPA | 2         | lb ai/a   | 3.3       | ef        | 0.0       | c         | 4.0    | c  | 16.333 | a   | 22.467 | a | 87.3   | ab  | 48.467  | ab  |
| 39                 | Devrinol                 | 12        | oz/a      |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 40                 | Dual Magnum              |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 41                 | Paladin+Pic 79:21: 50GPA | 2         | lb ai/a   | 12.3      | c-f       | 0.0       | c         | 0.7    | c  | 14.650 | cde | 21.233 | a | 62.0   | cd  | 33.967  | d   |
| 42                 | Devrinol                 | 2         | lb ai/a   |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 43                 | No post                  |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 44                 | Paladin+Pic 79:21: 50GPA | 2         | lb ai/a   | 2.7       | ef        | 0.0       | c         | 0.0    | c  | 15.117 | a-e | 21.883 | a | 73.7   | abc | 40.250  | a-d |
| 45                 | Devrinol                 | 12        | oz/a      |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 46                 | Dual Magnum              |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 47                 | Paladin+Pic 79:21: 60GPA | 2         | lb ai/a   | 5.7       | def       | 0.0       | c         | 0.0    | c  | 15.450 | a-d | 22.100 | a | 66.7   | bc  | 35.933  | cd  |
| 48                 | Devrinol                 | 2         | lb ai/a   |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 49                 | No post                  |           |           |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 50                 | Paladin+Pic 79:21: 60GPA | 2         | lb ai/a   | 2.0       | f         | 0.0       | c         | 0.7    | c  | 14.483 | de  | 20.783 | a | 72.7   | abc | 44.443  | a-d |
| 51                 | Devrinol                 | 2         | lb ai/a   |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| 52                 | Dual Magnum              | 12        | oz/a      |           |           |           |           |        |    |        |     |        |   |        |     |         |     |
| LSD (P=.05)        |                          |           |           | 21.51     |           | 2.90      |           | 14.67  |    | 1.2244 |     | 1.6650 |   | 22.17  |     | 10.8953 |     |
| Standard Deviation |                          |           |           | 13.04     |           | 1.76      |           | 8.89   |    | 0.7420 |     | 1.0090 |   | 13.44  |     | 6.6027  |     |
| CV                 |                          |           |           | 44.06     |           | 35.26     |           | 79.23  |    | 4.92   |     | 4.66   |   | 20.1   |     | 18.13   |     |
| Bartlett's X2      |                          |           |           | 59.696    |           | 0.004     |           | 58.963 |    | 23.859 |     | 29.963 |   | 26.504 |     | 24.396  |     |
| P(Bartlett's X2)   |                          |           |           | 0.001*    |           | 0.947     |           | 0.001* |    | 0.202  |     | 0.052  |   | 0.117  |     | 0.181   |     |
| Replicate F        |                          |           |           | 1.518     |           | 1.625     |           | 0.675  |    | 8.214  |     | 1.370  |   | 0.623  |     | 1.653   |     |
| Replicate Prob(F)  |                          |           |           | 0.2322    |           | 0.2103    |           | 0.5151 |    | 0.0011 |     | 0.2663 |   | 0.5418 |     | 0.2049  |     |
| Treatment F        |                          |           |           | 23.726    |           | 422.228   |           | 45.546 |    | 1.895  |     | 1.860  |   | 5.092  |     | 6.828   |     |
| Treatment Prob(F)  |                          |           |           | 0.0001    |           | 0.0001    |           | 0.0001 |    | 0.0461 |     | 0.0510 |   | 0.0001 |     | 0.0001  |     |

# University of Georgia

|                  |           |           |           |           |           |           |           |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Weed Code        | DIGSA     | MOLVE     | MOLVE     | AVG20PLA  | AVG20PLA  | HAR1-3    | HAR1-3    |
| Crop Code        |           |           |           | CPSAN     | CPSAN     | CPSAN     | CPSAN     |
| Rating Data Type | Counts    | Counts    | Counts    | HEIGHTS   | HEIGHTS   | HAR 1-3   | HAR 1-3   |
| Rating Unit      | #/plot    | #/plot    | #/plot    | CM        | CM        | #         | LBS       |
| Rating Date      | 4/28/2010 | 4/14/2010 | 4/28/2010 | 4/14/2010 | 4/28/2010 | 6/17/2010 | 6/17/2010 |
| Crop Stage       |           |           |           | AVG       | AVG       | #/PLOT    | LB/PLOT   |
| Crop Stage Scale |           |           |           |           |           |           |           |
| ARM Action Codes |           |           |           | T1        | T2        | T3        | T4        |
| Trt Treatment    | Rate      | Unit      |           |           |           |           |           |
| No. Name         | 29        | 31        | 32        | 54        | 76        | 85        | 86        |

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

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

# University of Georgia

## Pepper and weed response to Paladin Pic alone or in a system with Devrinol and/or Dual Magnum

Trial ID: Veg6-10  
Location: Ponder Farm

Study Dir.: Stanley Culpepper  
Investigator: Stanley Culpepper

### GENERAL TRIAL INFORMATION

|                                           |                                 |
|-------------------------------------------|---------------------------------|
| <b>Study Director:</b> Stanley Culpepper  | <b>Title:</b> EXT. WEED SCIENCE |
| <b>Affiliation:</b> UNIVERSITY OF GEORGIA |                                 |
| <b>Postal Code:</b> 31794                 |                                 |
| <b>Investigator:</b> Stanley Culpepper    | <b>Title:</b> EXT. WEED SCIENCE |
| <b>Affiliation:</b> UNIVERSITY OF GEORIGA |                                 |
| <b>Postal Code:</b> 31794                 |                                 |

### TRIAL LOCATION

|                           |                                     |
|---------------------------|-------------------------------------|
| <b>City:</b> TY TY        | <b>Trial Status:</b> COMPLETED      |
| <b>State/Prov.:</b> GA    | <b>Trial Reliability:</b> excellent |
| <b>Postal Code:</b> 31795 | <b>Initiation Date:</b> 2/18/2010   |
| <b>Country:</b> USA       |                                     |

Conducted Under GLP (Y/N): N

Conducted Under GEP (Y/N): N

### CROP AND WEED DESCRIPTION

| Weed Code | Common Name     | Scientific Name       |
|-----------|-----------------|-----------------------|
| 1. CYPES  | YELLOW NUTSEDGE | CYPERUS ESCULENTUS    |
| 2. AMAPA  | Palmer amaranth | Amaranthus palmeri    |
| 3. DIGSA  | Large crabgrass | Digitaria sanguinalis |
| 4. MOLVE  | Carpetweed      | Mollugo verticillata  |

|                                 |                                         |                               |
|---------------------------------|-----------------------------------------|-------------------------------|
| <b>Crop 1:</b> CPSAN            | <b>BELL PEPPER</b>                      | <b>Variety:</b> 2815          |
| <b>Planting Date:</b> 3/30/2010 | <b>Planting Method:</b> TRANSPLANT-HAND |                               |
| <b>Rate:</b> 1 FT               | <b>Depth:</b> 2 IN                      |                               |
| <b>Row Spacing:</b> 15 IN       | <b>Spacing Within Row:</b> 12 IN        | <b>Seed Bed:</b> RAISED-MULCH |
| <b>Soil Temperature:</b> 79 F   | <b>Soil Moisture:</b> MOIST             |                               |

### SITE AND DESIGN

|                                    |                                 |                |
|------------------------------------|---------------------------------|----------------|
| <b>Plot Width, Unit:</b> 6 FT      | <b>Plot Length, Unit:</b> 30 FT | <b>Reps:</b> 3 |
| <b>Site Type:</b> PONDER FARM      |                                 |                |
| <b>Tillage Type:</b> PLASTICULTURE | <b>Study Design:</b> FACTORIAL  |                |

### SOIL DESCRIPTION

|                   |                  |                                     |
|-------------------|------------------|-------------------------------------|
| <b>% Sand:</b> 90 | <b>% OM:</b> 0.8 | <b>Texture:</b> .                   |
| <b>% Silt:</b> 4  | <b>pH:</b> 6.5   | <b>Soil Name:</b> TIFTON SANDY LOAM |
| <b>% Clay:</b> 6  | <b>CEC:</b> 400  |                                     |

**Overall Moisture Conditions:** DRIP IRRIGATION

**Closest Weather Station:** www.griffin.uga.edu/aemn/ **Distance:** 200 **Unit:** yd

### APPLICATION DESCRIPTION

|                             | A         | B         |
|-----------------------------|-----------|-----------|
| <b>Application Date:</b>    | 2/18/2010 | 4/1/2010  |
| <b>Time of Day:</b>         | 5:00 PM   | 12:00 AM  |
| <b>Application Method:</b>  | BAND SB   | BROADCAST |
| <b>Application Timing:</b>  | PREPLANT  | POST      |
| <b>Applic. Placement:</b>   | IN BED    | OVERTOP   |
| <b>Air Temp., Unit:</b>     | 60 F      | 77 F      |
| <b>% Relative Humidity:</b> | 30        | 50        |
| <b>Wind Velocity, Unit:</b> | 4 MPH     | 0 MPH     |
| <b>Dew Presence (Y/N):</b>  | N         | N         |
| <b>Soil Temp., Unit:</b>    | 58 F      | 84 F      |
| <b>Soil Moisture:</b>       | MOIST     | MOIST     |
| <b>% Cloud Cover:</b>       | 0         | 0         |

### CROP STAGE AT EACH APPLICATION

|                            | A              | B          |
|----------------------------|----------------|------------|
| <b>Crop 1 Code, Stage:</b> | CPSAN PREplant | CPSAN POST |
| <b>Stage Scale:</b>        | PREPLANT       | 6 LEAF     |
| <b>Height, Unit:</b>       | 0 inch         | 4 IN       |

# University of Georgia

## WEED STAGE AT EACH APPLICATION

|                            | A              | B          |
|----------------------------|----------------|------------|
| <b>Weed 1 Code, Stage:</b> | CYPES PREPLANT | CYPES POST |
| <b>Stage Scale:</b>        | none up        | 3-6 inch   |
| <b>Density, Unit:</b>      | see data       | see data   |
| <b>Weed 2 Code, Stage:</b> | AMAPA PREPLANT | AMAPA POST |
| <b>Stage Scale:</b>        | none up        | 0.1 inch   |
| <b>Density, Unit:</b>      | see data       | see data   |
| <b>Weed 3 Code, Stage:</b> | DIGSA PREPLANT | DIGSA POST |
| <b>Stage Scale:</b>        | none up        | 0.1 inch   |
| <b>Density, Unit:</b>      | see data       | see data   |
| <b>Weed 4 Code, Stage:</b> | MOLVE PREPLANT | MOLVE POST |
| <b>Stage Scale:</b>        | none up        | 0.1 inch   |
| <b>Density, Unit:</b>      | see data       | see data   |

## APPLICATION EQUIPMENT

|                              | A         | B        |
|------------------------------|-----------|----------|
| <b>Appl. Equipment:</b>      | SUPER BED | BACKPACK |
| <b>Operating Pressure:</b>   | 26 PSI    | 26 PSI   |
| <b>Nozzle Type:</b>          | FLAT FAN  | FLAT FAN |
| <b>Nozzle Size:</b>          | 11002     | 11002    |
| <b>Nozzle Spacing, Unit:</b> | 8 IN      | 18 IN    |
| <b>Nozzles/Row:</b>          | 6         | 2        |
| <b>Boom Length, Unit:</b>    | 4 FT      | 4.5 FT   |
| <b>Boom Height, Unit:</b>    | 10 IN     | 15 IN    |
| <b>Ground Speed, Unit:</b>   | 3 MPH     | 3 IN     |
| <b>Carrier:</b>              | H2O       | H2O      |
| <b>Spray Volume, Unit:</b>   | 25 GPA    | 15 GPA   |
| <b>Propellant:</b>           | CO2       | CO2      |
| <b>Tank Mix (Y/N):</b>       | Y         | Y        |