

University of Georgia

Seeded turnip and transplant cabbage tolerance to numerous herbicides.

Trial ID: Veg10-06
Location: Ponder 5137

Study Dir.: Stanley Culpepper
Investigator: Stanley Culpepper

Reps: 4 Plots: 6 by 15 feet
Spray vol: 14.8 gal/ac Mix size: 1 liters (min .46301)

| Trt No. | Treatment Name | Form Conc | Form Type | Rate | Unit | Grow Stg | Appl Code | Amt Product to Measure | Plot No. By Rep | | | |
|---------|----------------|-----------|-----------|------|--------|----------|-----------|------------------------|-----------------|-----|-----|-----|
| | | | | | | | | | 1 | 2 | 3 | 4 |
| 1 | Valor | 51 | DG | 0.5 | OZ/A | PRE | A | 0.253 g/mx | 101 | 207 | 322 | 416 |
| 2 | Valor | 51 | DG | 1.0 | OZ/A | PRE | A | 0.506 g/mx | 102 | 203 | 312 | 423 |
| 3 | Valor | 51 | DG | 1.5 | OZ/A | PRE | A | 0.759 g/mx | 103 | 221 | 320 | 417 |
| 4 | Valor | 51 | DG | 2.0 | OZ/A | PRE | A | 1.012 g/mx | 104 | 214 | 319 | 424 |
| 5 | Treflan | 4 | L | 0.5 | PT/A | PRE | A | 4.223 ml/mx | 105 | 218 | 307 | 420 |
| 6 | Treflan | 4 | L | 0.5 | PT/A | PRE | A | 4.223 ml/mx | 106 | 222 | 315 | 404 |
| | Dual Magnum | 7.62 | L | 8 | OZ/A | 2WAP | B | 4.223 ml/mx | | | | |
| 7 | Non-treated | | | | | | | | 107 | 215 | 301 | 408 |
| 8 | Treflan | 4 | L | 0.5 | PT/A | PRE | A | 4.223 ml/mx | 108 | 210 | 306 | 413 |
| | Dual Magnum | 7.62 | L | 12 | OZ/A | 2WAP | B | 6.334 ml/mx | | | | |
| 9 | Dual Magnum | 7.62 | L | 8 | OZ/A | PRE | A | 4.223 ml/mx | 109 | 224 | 321 | 405 |
| 10 | Dual Magnum | 7.62 | L | 12 | OZ/A | PRE | A | 6.334 ml/mx | 110 | 216 | 311 | 418 |
| 11 | Dual Magnum | 7.62 | L | 8 | OZ/A | 2WAP | B | 4.223 ml/mx | 111 | 206 | 302 | 403 |
| 12 | Dual Magnum | 7.62 | L | 12 | OZ/A | 2WAP | B | 6.334 ml/mx | 112 | 202 | 314 | 419 |
| 13 | Outlook | 6 | L | 8 | OZ/A | PRE | A | 4.223 ml/mx | 113 | 219 | 316 | 401 |
| 14 | Outlook | 6 | L | 12 | OZ/A | PRE | A | 6.334 ml/mx | 114 | 208 | 317 | 406 |
| 15 | Outlook | 6 | L | 8 | OZ/A | 2WAP | B | 4.223 ml/mx | 115 | 204 | 305 | 421 |
| 16 | Outlook | 6 | L | 12 | OZ/A | 2WAP | B | 6.334 ml/mx | 116 | 212 | 309 | 411 |
| 17 | Prowl H20 | 3.8 | L | 12 | OZ/A | PRE | A | 6.334 ml/mx | 117 | 201 | 308 | 415 |
| 18 | Prowl H20 | 3.8 | L | 24 | OZ/A | PRE | A | 12.67 ml/mx | 118 | 220 | 303 | 409 |
| 19 | Prowl H20 | 3.8 | L | 12 | OZ/A | 2WAP | B | 6.334 ml/mx | 119 | 223 | 304 | 410 |
| 20 | Prowl H20 | 3.8 | L | 24 | OZ/A | 2WAP | B | 12.67 ml/mx | 120 | 205 | 313 | 407 |
| 21 | Sulfentrazone | 4 | L | 0.1 | LB A/A | PRE | A | 1.689 ml/mx | 121 | 209 | 318 | 412 |
| 22 | Sulfentrazone | 4 | L | 0.1 | LB A/A | 2WAP | B | 1.689 ml/mx | 123 | 213 | 310 | 402 |
| 23 | Define | 4 | L | 12 | OZ/A | PRE | A | 6.334 ml/mx | 124 | 211 | 324 | 414 |
| 24 | Define | 4 | L | 12 | OZ/A | 2WAP | B | 6.334 ml/mx | 122 | 217 | 323 | 422 |

Sort Order: Treatment

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

| Amount* | Unit | Treatment Name | Form Conc | Form Type | Lot Code |
|---------|------|----------------|-----------|-----------|----------|
| 3.163 | g | Valor | 51 | DG | |
| 15.834 | ml | Treflan | 4 | L | |
| 39.590 | ml | Dual Magnum | 7.62 | L | |
| 26.394 | ml | Outlook | 6 | L | |
| 47.509 | ml | Prowl H20 | 3.8 | L | |
| 4.223 | ml | Sulfentrazone | 4 | L | |
| 15.836 | ml | Define | 4 | L | |

* '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.

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Seeded turnip and transplant cabbage tolerance to numerous herbicides.

Trial ID: Veg10-06
Location: Ponder 5137

Study Dir.: Stanley Culpepper
Investigator: Stanley Culpepper

Trial Comments

OBJECTIVE: Develop the most effective weed management program in seeded turnip and transplant cabbage.

WEED CONTROL:

1. All products except Treflan alone and Dual Mag. at 8 oz/A PRE provided excellent control of henbit. POST residual treatments were effective because the weed emerged after POST application were made.
2. Swinecress control was greater than 90% only with Valor, Treflan fb Dual Mag., and Prowl H20 PRE at 24 oz/A.

CROP EVALUATIONS WERE MADE IN AN AREA OF THE PLOT THAT WAS MAINTAINED WEED FREE

VISUAL TURNIP INJURY:

1. Less than 16% injury was noted throughout the season with Treflan, Treflan fb Dual Mag., Dual Mag or Outlook POST at 8 oz/A, and Prowl H20 at 12 oz/A PRE.

TURNIP STAND COUNTS:

1. Stand counts were taken prior to POST applications. Valor, sulfentrazone, and Define PRE reduced plant stand at least 70%.
2. Outlook PRE and Dual Magnum 12 oz PRE tended to reduce stand counts.

TURNIP PLANT HEIGHTS (measured 10 living plants):

1. Compared to Treflan alone or the control, heights were not impacted by only Treflan fb Dual Magnum, Dual Mag POST at 8 oz/A and Prowl H20 at 12 oz/A PRE or POST.

TURNIP TOP YIELDS (Harvested 5 row feet):

1. Compared to Treflan alone, turnip weights were not significantly impacted by Treflan fb Dual Magnum, Dual Mag. or Outlook PRE at 8 oz/A; Dual Mag POST or Outlook POST at 8 oz/A and Prowl H20 at 12 oz/A PRE or POST.
2. Yield data was very variable and when noting yield trends, it appears that yields were not impacted with only the Treflan fb Dual systems and the Prowl at 12 oz treatments.

VISUAL CABBAGE INJURY:

1. Valor, Dual Magnum PRE, Outlook PRE, Sulfentrazone and Define caused excessive cabbage injury.
2. Treflan fb Dual, Dual or Outlook POST, and Prowl caused only minor injury throughout the season.

CABBAGE PLANT HEIGHTS (measured 10 living plants):

1. Compared to Treflan alone, heights were only reduced by Valor at 1.5 and 2 oz/A; Dual Magnum 12 oz/A PRE, Outlook PRE, and Define applied PRE.

CABBAGE YIELDS:

1. Seven plants per plot were harvested even though in some plots had stand loss.
2. Of the plants surviving, only Outlook PRE reduced cabbage heads.

CONCLUSION:

1. Turnip: Develop programs using Treflan, low rates of Dual POST, low rates of Outlook POST, and low rates of Prowl H20 PRE.
2. Cabbage: Develop programs using Treflan, Dual or Outlook POST, and Prowl H20 PRE or POST.
3. Develop row middle applications for Valor.

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Location: Ponder 5137

Study Dir.: Stanley Culpepper
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| Weed Code | LAMAM | COPDI | BSRSS | BSRSS | BSRSS | BSRSS | plant 1 | plant 2 | | |
|--------------------|------------------------|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|--------|--------|
| Crop Code | | | | | | | BSRSS | BSRSS | | |
| Rating Data Type | control | control | control | injury | injury | stand cts | ht | ht | | |
| Rating Unit | percent | percent | percent | percent | percent | # | cm | cm | | |
| Rating Date | Mar-21-06 | Mar-21-06 | Feb-24-06 | Mar-07-06 | Mar-21-06 | Feb-27-06 | Mar-27-06 | Mar-27-06 | | |
| Trt-Eval Interval | 41 DA-A | 41 DA-A | 16 DA-A | 27 DA-A | 41 DA-A | 19 DA-A | 47 DA-A | 47 DA-A | | |
| ARM Action Codes | | | | | | | | | | |
| 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 | 8 | | | | | | |
| 1 | Valor | 0.5 OZ/A | 100 a | 100 a | 100 a | 100 a | 100 a | 0 d | 0 g | 0 g |
| 2 | Valor | 1.0 OZ/A | 100 a | 100 a | 100 a | 100 a | 100 a | 0 d | 0 g | 0 g |
| 3 | Valor | 1.5 OZ/A | 100 a | 100 a | 100 a | 100 a | 100 a | 0 d | 0 g | 0 g |
| 4 | Valor | 2.0 OZ/A | 100 a | 100 a | 100 a | 100 a | 100 a | 0 d | 0 g | 0 g |
| 5 | Treflan | 0.5 PT/A | 48 c | 29 j | 0 c | 1 gh | 0 h | 22 a | 12 ab | 11 ab |
| 6 | Treflan Dual Magnum | 0.5 PT/A 8 OZ/A | 100 a | 74 fg | 0 c | 1 gh | 0 h | 23 a | 13 a | 13 a |
| 7 | Non-treated | | 0 d | 0 k | 0 c | 0 h | 0 h | 23 a | 13 a | 13 a |
| 8 | Treflan Dual Magnum | 0.5 PT/A 12 OZ/A | 99 ab | 97 ab | 0 c | 3 fgh | 1 h | 19 abc | 10 abc | 9 a-d |
| 9 | Dual Magnum | 8 OZ/A | 87 b | 46 i | 14 b | 12 e | 19 g | 21 abc | 7 b-e | 6 c-f |
| 10 | Dual Magnum | 12 OZ/A | 98 ab | 59 h | 13 b | 18 e | 39 ef | 17 bc | 8 b-e | 7 b-f |
| 11 | Dual Magnum | 8 OZ/A | 99 ab | 74 fg | 0 c | 13 e | 15 g | 23 a | 12 ab | 10 abc |
| 12 | Dual Magnum | 12 OZ/A | 99 ab | 86 cd | 0 c | 15 e | 14 g | 19 abc | 7 b-e | 8 a-e |
| 13 | Outlook | 8 OZ/A | 97 ab | 68 gh | 16 b | 18 e | 49 e | 17 bc | 6 cde | 6 c-f |
| 14 | Outlook | 12 OZ/A | 98 ab | 74 efg | 17 b | 28 d | 61 d | 16 c | 5 cde | 5 d-g |
| 15 | Outlook | 8 OZ/A | 98 ab | 79 def | 0 c | 9 efg | 16 g | 22 ab | 6 cde | 7 b-f |
| 16 | Outlook | 12 OZ/A | 99 ab | 88 bcd | 0 c | 13 e | 40 ef | 20 abc | 9 a-d | 7 b-f |
| 17 | Prowl H20 | 12 OZ/A | 98 ab | 60 h | 2 c | 1 gh | 9 gh | 23 a | 11 ab | 10 abc |
| 18 | Prowl H20 | 24 OZ/A | 99 ab | 95 abc | 0 c | 18 e | 75 c | 21 abc | 4 efg | 6 c-f |
| 19 | Prowl H20 | 12 OZ/A | 93 ab | 38 ij | 0 c | 11 ef | 16 g | 22 ab | 10 abc | 10 abc |
| 20 | Prowl H20 | 24 OZ/A | 97 ab | 68 gh | 0 c | 2 gh | 34 f | 23 a | 8 b-e | 7 b-f |
| 21 | Sulfentrazone | 0.1 LB A/A | 90 ab | 38 ij | 100 a | 80 b | 67 cd | 5 d | 7 cde | 5 c-f |
| 22 | Sulfentrazone | 0.1 LB A/A | 93 ab | 65 gh | 0 c | 69 c | 63 d | 21 abc | 5 def | 4 efg |
| 23 | Define | 12 OZ/A | 95 ab | 84 de | 100 a | 100 a | 100 a | 1 d | 1 fg | 0 g |
| 24 | Define | 12 OZ/A | 92 ab | 84 de | 0 c | 68 c | 86 b | 22 ab | 4 efg | 3 fg |
| LSD (P=.05) | | | 9.9 | 8.8 | 6.3 | 7.7 | 10.2 | 4.5 | 3.8 | 4.0 |
| Standard Deviation | | | 7.0 | 6.2 | 4.5 | 5.5 | 7.2 | 3.2 | 2.7 | 2.8 |
| CV | | | 7.7 | 8.8 | 16.27 | 14.98 | 15.66 | 20.25 | 42.29 | 46.78 |
| Bartlett's X2 | | | 92.44 | 28.87 | 7.436 | 32.391 | 31.536 | 31.216 | 28.684 | 25.08 |
| P(Bartlett's X2) | | | 0.001* | 0.05* | 0.115 | 0.013* | 0.007* | 0.038* | 0.071 | 0.123 |

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

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| Weed Code | plant 3 | plant 4 | plant 5 | plant 6 | plant 7 | plant 8 | plant 9 | plant 10 | | | |
|--------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------|--------|--------|
| Crop Code | BSRSS | BSRSS | BSRSS | BSRSS | BSRSS | BSRSS | BSRSS | BSRSS | | | |
| Rating Data Type | ht | ht | ht | ht | ht | ht | ht | ht | | | |
| Rating Unit | cm | cm | cm | cm | cm | cm | cm | cm | | | |
| Rating Date | Mar-27-06 | Mar-27-06 | Mar-27-06 | Mar-27-06 | Mar-27-06 | Mar-27-06 | Mar-27-06 | Mar-27-06 | | | |
| Trt-Eval Interval | 47 DA-A | 47 DA-A | 47 DA-A | 47 DA-A | 47 DA-A | 47 DA-A | 47 DA-A | 47 DA-A | | | |
| ARM Action Codes | | | | | | | | | | | |
| Trt No. | Treatment Name | Rate | Unit | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 1 | Valor | 0.5 | OZ/A | 0 h | 0 g | 0 h | 0 f | 0 j | 0 g | 0 g | 0 h |
| 2 | Valor | 1.0 | OZ/A | 0 h | 0 g | 0 h | 0 f | 0 j | 0 g | 0 g | 0 h |
| 3 | Valor | 1.5 | OZ/A | 0 h | 0 g | 0 h | 0 f | 0 j | 0 g | 0 g | 0 h |
| 4 | Valor | 2.0 | OZ/A | 0 h | 0 g | 0 h | 0 f | 0 j | 0 g | 0 g | 0 h |
| 5 | Treflan | 0.5 | PT/A | 11 a-d | 13 a | 12 ab | 13 a | 11 ab | 11 ab | 11 ab | 12 ab |
| 6 | Treflan | 0.5 | PT/A | 13 a | 13 a | 12 ab | 14 a | 13 a | 13 a | 14 a | 13 a |
| | Dual Magnum | 8 | OZ/A | | | | | | | | |
| 7 | Non-treated | | | 12 ab | 12 a | 11 ab | 14 a | 13 a | 11 ab | 12 a | 12 ab |
| 8 | Treflan | 0.5 | PT/A | 9 b-e | 9 abc | 10 a-e | 10 abc | 8 c-f | 8 bcd | 11 abc | 10 a-d |
| | Dual Magnum | 12 | OZ/A | | | | | | | | |
| 9 | Dual Magnum | 8 | OZ/A | 7 d-g | 7 bcd | 7 c-g | 6 de | 7 c-g | 7 b-e | 7 d | 7 c-f |
| 10 | Dual Magnum | 12 | OZ/A | 7 c-f | 6 c-f | 6 efg | 7 cde | 7 d-h | 7 b-e | 5 de | 5 efg |
| 11 | Dual Magnum | 8 | OZ/A | 11 abc | 12 a | 11 abc | 8 b-e | 10 a-d | 8 bcd | 8 bcd | 10 a-d |
| 12 | Dual Magnum | 12 | OZ/A | 7 d-g | 8 bcd | 8 b-f | 8 b-e | 8 b-e | 7 b-e | 8 bcd | 7 c-f |
| 13 | Outlook | 8 | OZ/A | 6 efg | 6 c-f | 6 d-g | 5 de | 6 e-i | 7 b-e | 7 cd | 7 c-f |
| 14 | Outlook | 12 | OZ/A | 4 fg | 5 def | 6 d-g | 4 ef | 4 hij | 4 d-g | 4 def | 4 e-h |
| 15 | Outlook | 8 | OZ/A | 6 efg | 7 bcd | 7 c-g | 6 cde | 8 c-f | 8 bcd | 8 bcd | 7 c-f |
| 16 | Outlook | 12 | OZ/A | 7 d-g | 6 c-f | 5 fg | 5 de | 6 e-i | 6 c-f | 5 de | 5 efg |
| 17 | Prowl H20 | 12 | OZ/A | 10 a-e | 11 a | 13 a | 12 ab | 11 abc | 10 ab | 11 ab | 11 abc |
| 18 | Prowl H20 | 24 | OZ/A | 4 fg | 3 fg | 4 gh | 5 de | 4 f-i | 3 efg | 3 efg | 4 efg |
| 19 | Prowl H20 | 12 | OZ/A | 9 b-e | 10 ab | 10 a-d | 9 bcd | 9 b-e | 10 abc | 8 bcd | 8 b-e |
| 20 | Prowl H20 | 24 | OZ/A | 8 b-f | 7 cde | 7 c-g | 6 cde | 9 b-e | 7 b-e | 7 d | 7 def |
| 21 | Sulfentrazone | 0.1 | LB A/A | 7 d-g | 6 c-f | 5 fg | 4 def | 4 ghi | 4 d-g | 3 efg | 4 fgh |
| 22 | Sulfentrazone | 0.1 | LB A/A | 4 fg | 4 def | 4 gh | 4 def | 3 ij | 3 efg | 6 de | 4 fgh |
| 23 | Define | 12 | OZ/A | 0 h | 0 g | 0 h | 0 f | 0 j | 0 g | 0 g | 0 h |
| 24 | Define | 12 | OZ/A | 3 gh | 3 efg | 3 gh | 4 def | 3 ij | 2 fg | 1 fg | 2 gh |
| LSD (P=.05) | | | | 3.5 | 3.3 | 3.5 | 3.8 | 3.2 | 3.8 | 3.2 | 3.6 |
| Standard Deviation | | | | 2.5 | 2.3 | 2.5 | 2.7 | 2.3 | 2.7 | 2.3 | 2.5 |
| CV | | | | 41.99 | 38.2 | 41.78 | 44.53 | 38.25 | 48.43 | 40.2 | 44.66 |
| Bartlett's X2 | | | | 35.614 | 24.304 | 25.406 | 24.264 | 23.556 | 21.353 | 14.584 | 12.771 |
| P(Bartlett's X2) | | | | 0.008* | 0.145 | 0.114 | 0.147 | 0.17 | 0.262 | 0.69 | 0.805 |

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

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| Weed Code | Avg10pla | Harv 1 | Harv 1 | BRSOL | BRSOL | BRSOL | plant 1 | plant 2 | | |
|--------------------|----------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|--------|--------|
| Crop Code | BSRSS | BSRSS | BSRSS | BRSOL | BRSOL | BRSOL | BRSOL | BRSOL | | |
| Rating Data Type | ht | wt/5 row ft | yield | injury | injury | injury | ht | ht | | |
| Rating Unit | cm | lb | lbs/A | percent | percent | percent | cm | cm | | |
| Rating Date | Mar-27-06 | Apr-06-06 | Apr-06-06 | Feb-24-06 | Mar-07-06 | Mar-21-06 | Mar-27-06 | Mar-27-06 | | |
| Trt-Eval Interval | 47 DA-A | 57 DA-A | | 16 DA-A | 16 DA-A | 41 DA-A | 47 DA-A | 47 DA-A | | |
| ARM Action Codes | T1 | | T3 | | | | | | | |
| Trt No. | Treatment Name | Rate | Rate | Rate | Rate | Rate | Rate | Rate | | |
| | | Unit | Unit | Unit | Unit | Unit | Unit | Unit | | |
| | | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | |
| 1 | Valor | 0.5 OZ/A | 0 j | 0 i | 0 i | 13 cd | 19 d | 12 efg | 17 abc | 18 abc |
| 2 | Valor | 1.0 OZ/A | 0 j | 0 i | 0 i | 9 de | 18 de | 18 ef | 14 a-e | 16 a-d |
| 3 | Valor | 1.5 OZ/A | 0 j | 0 i | 0 i | 34 a | 36 b | 41 bc | 17 abc | 17 abc |
| 4 | Valor | 2.0 OZ/A | 0 j | 0 i | 0 i | 31 a | 64 a | 55 a | 13 b-e | 11 de |
| 5 | Treflan | 0.5 PT/A | 11 abc | 4 ab | 10788 ab | 0 f | 3 fg | 0 g | 19 abc | 17 a-d |
| 6 | Treflan | 0.5 PT/A | 13 a | 4 a | 11013 a | 0 f | 1 fg | 0 g | 20 a | 18 abc |
| | Dual Magnum | 8 OZ/A | | | | | | | | |
| 7 | Non-treated | | 12 ab | 3 abc | 8719 abc | 0 f | 0 g | 0 g | 20 a | 21 a |
| 8 | Treflan | 0.5 PT/A | 9 b-e | 3 abc | 9031 abc | 0 f | 1 fg | 0 g | 18 abc | 18 abc |
| | Dual Magnum | 12 OZ/A | | | | | | | | |
| 9 | Dual Magnum | 8 OZ/A | 7 e-h | 2 cde | 7166 cde | 10 de | 19 d | 21 de | 15 a-e | 16 a-e |
| 10 | Dual Magnum | 12 OZ/A | 6 e-h | 2 c-f | 6207 c-f | 10 d | 23 cd | 31 cd | 16 a-d | 14 cde |
| 11 | Dual Magnum | 8 OZ/A | 10 bcd | 3 bcd | 7979 bcd | 0 f | 0 g | 3 g | 19 ab | 17 abc |
| 12 | Dual Magnum | 12 OZ/A | 8 def | 2 cde | 6970 cde | 0 f | 1 fg | 2 g | 19 ab | 19 abc |
| 13 | Outlook | 8 OZ/A | 6 e-h | 2 c-f | 6512 c-f | 17 bc | 36 b | 51 ab | 10 e | 10 e |
| 14 | Outlook | 12 OZ/A | 4 ghi | 2 efg | 4697 efg | 18 bc | 38 b | 57 a | 10 de | 11 e |
| 15 | Outlook | 8 OZ/A | 7 d-g | 3 cde | 7442 cde | 0 f | 4 fg | 0 g | 17 abc | 18 abc |
| 16 | Outlook | 12 OZ/A | 6 fgh | 2 d-g | 5184 d-g | 0 f | 10 d-g | 6 fg | 19 abc | 18 abc |
| 17 | Prowl H20 | 12 OZ/A | 11 abc | 3 abc | 8342 abc | 3 ef | 6 efg | 3 g | 18 abc | 19 abc |
| 18 | Prowl H20 | 24 OZ/A | 4 hi | 1 hi | 1735 hi | 0 f | 3 fg | 4 g | 20 a | 21 ab |
| 19 | Prowl H20 | 12 OZ/A | 9 cde | 3 abc | 8429 abc | 0 f | 14 def | 11 efg | 19 abc | 22 a |
| 20 | Prowl H20 | 24 OZ/A | 7 d-g | 2 d-g | 4966 d-g | 0 f | 5 fg | 6 fg | 16 a-d | 16 a-e |
| 21 | Sulfentrazone | 0.1 LB A/A | 5 f-i | 1 fgh | 3870 fgh | 9 de | 18 de | 18 ef | 17 abc | 18 abc |
| 22 | Sulfentrazone | 0.1 LB A/A | 4 hi | 1 ghi | 2998 ghi | 0 f | 19 d | 7 fg | 18 abc | 19 abc |
| 23 | Define | 12 OZ/A | 0 j | 0 i | 123 i | 20 b | 34 bc | 39 bc | 12 cde | 15 b-e |
| 24 | Define | 12 OZ/A | 3 ij | 0 hi | 1162 hi | 0 f | 4 fg | 24 de | 16 a-d | 17 abc |
| LSD (P=.05) | | 2.6 | 0.9 | 2626.3 | 6.1 | 11.3 | 11.6 | 5.2 | 4.9 | |
| Standard Deviation | | 1.8 | 0.6 | 1857.1 | 4.3 | 8.0 | 8.2 | 3.6 | 3.5 | |
| CV | | 31.0 | 36.14 | 36.14 | 59.67 | 51.49 | 48.6 | 22.12 | 20.81 | |
| Bartlett's X2 | | 48.167 | 39.03 | 39.03 | 11.784 | 45.042 | 21.664 | 43.5 | 23.91 | |
| P(Bartlett's X2) | | 0.001* | 0.004* | 0.004* | 0.30 | 0.002* | 0.247 | 0.006* | 0.409 | |

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

Column 17: T1 = @AVG([C7].[C16])

Column 19: T3 = [18]*4/30*43560

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| Weed Code | plant 3 | plant 4 | plant 5 | plant 6 | plant 7 | plant 8 | plant 9 | plant 10 | | | |
|--------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------|--------|--------|
| Crop Code | BRSOL | BRSOL | BRSOL | BRSOL | BRSOL | BRSOL | BRSOL | BRSOL | | | |
| Rating Data Type | ht | ht | ht | ht | ht | ht | ht | ht | | | |
| Rating Unit | cm | cm | cm | cm | cm | cm | cm | cm | | | |
| Rating Date | Mar-27-06 | Mar-27-06 | Mar-27-06 | Mar-27-06 | Mar-27-06 | Mar-27-06 | Mar-27-06 | Mar-27-06 | | | |
| Trt-Eval Interval | 47 DA-A | 47 DA-A | 47 DA-A | 47 DA-A | 47 DA-A | 47 DA-A | 47 DA-A | 47 DA-A | | | |
| ARM Action Codes | | | | | | | | | | | |
| Trt No. | Treatment Name | Rate | Unit | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
| 1 | Valor | 0.5 | OZ/A | 16 b-g | 18 a-d | 16 a-g | 17 a-e | 14 c-h | 15 b-f | 17 a-d | 16 a-e |
| 2 | Valor | 1.0 | OZ/A | 15 b-g | 18 a-d | 14 d-h | 15 c-g | 16 a-g | 18 a-e | 18 a-d | 18 a-d |
| 3 | Valor | 1.5 | OZ/A | 16 b-g | 14 def | 16 a-g | 11 gh | 12 fgh | 13 d-g | 16 b-e | 11 fg |
| 4 | Valor | 2.0 | OZ/A | 13 efg | 12 ef | 14 c-g | 8 h | 11 gh | 9 g | 11 fg | 13 d-g |
| 5 | Treflan | 0.5 | PT/A | 18 a-e | 17 b-e | 17 a-e | 20 a-d | 19 abc | 21 ab | 18 abc | 22 a |
| 6 | Treflan | 0.5 | PT/A | 18 a-d | 17 b-e | 19 abc | 17 a-e | 21 ab | 17 a-e | 18 a-d | 19 a-d |
| | Dual Magnum | 8 | OZ/A | | | | | | | | |
| 7 | Non-treated | | | 23 a | 23 a | 20 a | 17 a-e | 21 ab | 21 a | 21 ab | 19 abc |
| 8 | Treflan | 0.5 | PT/A | 17 b-e | 21 ab | 20 a | 23 a | 21 a | 22 a | 19 abc | 21 ab |
| | Dual Magnum | 12 | OZ/A | | | | | | | | |
| 9 | Dual Magnum | 8 | OZ/A | 15 b-g | 17 b-e | 16 a-f | 15 b-g | 15 b-h | 16 a-e | 15 c-f | 15 b-f |
| 10 | Dual Magnum | 12 | OZ/A | 14 c-g | 15 c-f | 13 e-h | 14 d-g | 13 e-h | 15 c-g | 14 c-f | 14 c-g |
| 11 | Dual Magnum | 8 | OZ/A | 16 b-f | 19 a-d | 19 ab | 18 a-e | 18 a-e | 19 a-d | 19 abc | 21 ab |
| 12 | Dual Magnum | 12 | OZ/A | 20 ab | 20 abc | 19 ab | 19 a-d | 20 abc | 20 abc | 18 a-d | 20 ab |
| 13 | Outlook | 8 | OZ/A | 11 g | 14 def | 11 gh | 10 gh | 13 d-h | 13 efg | 13 d-g | 11 efg |
| 14 | Outlook | 12 | OZ/A | 11 fg | 10 f | 9 h | 11 fgh | 10 h | 10 fg | 9 g | 9 g |
| 15 | Outlook | 8 | OZ/A | 20 ab | 16 b-e | 18 a-d | 17 a-f | 18 a-e | 16 a-e | 19 abc | 18 a-d |
| 16 | Outlook | 12 | OZ/A | 18 a-d | 19 a-d | 20 ab | 17 a-e | 15 b-h | 19 a-d | 21 a | 19 abc |
| 17 | Prowl H20 | 12 | OZ/A | 19 abc | 20 abc | 19 abc | 21 ab | 20 ab | 19 abc | 18 a-d | 19 abc |
| 18 | Prowl H20 | 24 | OZ/A | 20 ab | 20 abc | 18 a-d | 21 abc | 19 a-d | 18 a-e | 19 abc | 20 ab |
| 19 | Prowl H20 | 12 | OZ/A | 18 a-e | 18 a-d | 18 a-e | 17 a-e | 20 abc | 16 a-e | 18 a-d | 17 a-e |
| 20 | Prowl H20 | 24 | OZ/A | 18 a-e | 19 a-d | 18 a-d | 19 a-e | 20 ab | 19 a-d | 20 ab | 19 abc |
| 21 | Sulfentrazone | 0.1 | LB A/A | 16 b-g | 19 a-d | 15 b-g | 16 b-g | 15 b-h | 17 a-e | 18 a-d | 17 a-d |
| 22 | Sulfentrazone | 0.1 | LB A/A | 21 ab | 19 a-d | 17 a-f | 19 a-e | 18 a-e | 20 abc | 19 abc | 19 a-d |
| 23 | Define | 12 | OZ/A | 13 d-g | 14 def | 12 fgh | 13 e-h | 13 d-h | 12 efg | 11 efg | 10 fg |
| 24 | Define | 12 | OZ/A | 20 ab | 16 b-e | 18 a-d | 17 a-f | 17 a-f | 16 a-e | 16 b-e | 16 a-e |
| LSD (P=.05) | | | | 4.6 | 4.6 | 4.1 | 5.1 | 5.0 | 4.9 | 4.2 | 4.7 |
| Standard Deviation | | | | 3.3 | 3.3 | 2.9 | 3.6 | 3.5 | 3.5 | 3.0 | 3.3 |
| CV | | | | 19.44 | 19.18 | 17.84 | 22.28 | 21.2 | 20.82 | 17.72 | 19.81 |
| Bartlett's X2 | | | | 24.401 | 21.794 | 22.605 | 14.586 | 20.726 | 20.837 | 31.617 | 24.005 |
| P(Bartlett's X2) | | | | 0.382 | 0.533 | 0.484 | 0.909 | 0.598 | 0.591 | 0.108 | 0.404 |

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

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| Weed Code | | | Avg.10pl | Harv 1 | Harv 1 | Harv 1 | |
|--------------------|------------------------|-----------|--------------|------------|------------|-----------|-----------|
| Crop Code | | | BRSOL | BRSOL | BRSOL | BRSOL | |
| Rating Data Type | | | ht | per 7 plts | wt/7plants | yield | |
| Rating Unit | | | cm | number | lbs | lbs/A | |
| Rating Date | | | Mar-27-06 | May-11-06 | May-11-06 | May-11-06 | |
| Trt-Eval Interval | | | 47 DA-A | | | | |
| ARM Action Codes | | | T2 | | | T4 | |
| Trt No. | Treatment Name | Rate | Rate Unit | 33 | 34 | 35 | 36 |
| 1 | Valor | 0.5 | OZ/A | 16 c-f | 7 a | 22 abc | 44639 abc |
| 2 | Valor | 1.0 | OZ/A | 16 def | 7 a | 23 ab | 47138 ab |
| 3 | Valor | 1.5 | OZ/A | 14 fg | 7 a | 20 abc | 40926 abc |
| 4 | Valor | 2.0 | OZ/A | 11 gh | 7 a | 17 a-d | 34884 a-d |
| 5 | Treflan | 0.5 | PT/A | 19 a-d | 7 a | 17 a-d | 35377 a-d |
| 6 | Treflan Dual Magnum | 0.5 8 | PT/A OZ/A | 18 a-e | 7 a | 17 a-d | 35418 a-d |
| 7 | Non-treated | | | 21 a | 7 a | 18 a-d | 36564 a-d |
| 8 | Treflan Dual Magnum | 0.5 12 | PT/A OZ/A | 20 ab | 7 a | 19 abc | 39266 abc |
| 9 | Dual Magnum | 8 | OZ/A | 15 ef | 7 a | 15 bcd | 31866 bcd |
| 10 | Dual Magnum | 12 | OZ/A | 14 fg | 7 a | 14 cde | 29559 cde |
| 11 | Dual Magnum | 8 | OZ/A | 18 a-d | 7 a | 18 a-d | 37560 a-d |
| 12 | Dual Magnum | 12 | OZ/A | 19 abc | 7 a | 21 abc | 42720 abc |
| 13 | Outlook | 8 | OZ/A | 12 gh | 7 a | 8 e | 16205 e |
| 14 | Outlook | 12 | OZ/A | 10 h | 7 a | 11 de | 21987 de |
| 15 | Outlook | 8 | OZ/A | 18 a-e | 7 a | 17 a-d | 36227 a-d |
| 16 | Outlook | 12 | OZ/A | 19 a-d | 7 a | 18 a-d | 37508 a-d |
| 17 | Prowl H20 | 12 | OZ/A | 19 abc | 7 a | 19 abc | 39064 abc |
| 18 | Prowl H20 | 24 | OZ/A | 19 abc | 7 a | 22 abc | 45634 abc |
| 19 | Prowl H20 | 12 | OZ/A | 18 a-e | 7 a | 17 a-d | 35242 a-d |
| 20 | Prowl H20 | 24 | OZ/A | 18 a-e | 7 a | 19 abc | 39064 abc |
| 21 | Sulfentrazone | 0.1 | LB A/A | 17 c-f | 7 a | 17 a-d | 34319 a-d |
| 22 | Sulfentrazone | 0.1 | LB A/A | 19 a-d | 7 a | 18 a-d | 37270 a-d |
| 23 | Define | 12 | OZ/A | 12 gh | 7 a | 19 abc | 38940 abc |
| 24 | Define | 12 | OZ/A | 17 b-f | 7 a | 24 a | 50540 a |
| LSD (P=.05) | | | 2.5 | 0.0 | 6.7 | 13797.2 | |
| Standard Deviation | | | 1.8 | 0.0 | 4.7 | 9756.1 | |
| CV | | | 10.83 | 0.0 | 26.37 | 26.37 | |
| Bartlett's X2 | | | 16.237 | 0.0 | 32.784 | 32.784 | |
| P(Bartlett's X2) | | | 0.845 | . | 0.085 | 0.085 | |

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

Column 33: T2 = @AVG([C23].[C32])

Column 36: T4 = [35]*2/42*43560

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Seeded turnip and transplant cabbage tolerance to numerous herbicides.

Trial ID: Veg10-06
Location: Ponder 5137

Study Dir.: Stanley Culpepper
Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Andrew MacRae
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: 31794 **Initiation Date:** Feb-08-06
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. | LAMAM | henbit | |
| 2. | COPDI | Swinecress | Coronopus didymus |

Crop 1: BRSRR TURNIP **Variety:** White Globe Turnip Top
Planting Date: Feb-08-06 **Planting Method:** seeded
Rate: 8 per ft **Depth:** 0.15 in **Perennial Age:** ____ ____
Row Spacing: 36 inch **Spacing Within Row:** 0.33 inch **Seed Bed:** flat
Soil Temperature: 54 F **Soil Moisture:** moist **Emergence Date:** Feb-17-06

Crop 2: BRSOL CABBAGE **Variety:** Bravo
Planting Date: Feb-10-06 **Planting Method:** transplant
Rate: 1 per ft **Depth:** 1 in **Perennial Age:** ____ ____
Row Spacing: 36 inch **Spacing Within Row:** 12 inch **Seed Bed:** flat
Soil Temperature: 58 F **Soil Moisture:** moist **Emergence Date:** _____

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 15 FT **Reps:** 4
Site Type: Research station
Tillage Type: Conventional **Study Design:** RANDOMIZED COMPLETE BLOCK

Trial Initiation Comments: _____

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

MAINTENANCE

Field Prep./Maintenance:

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

SOIL DESCRIPTION

| | | | |
|------------|------------|------------------------------|--|
| % Sand: 94 | % OM: 1.1 | Texture: sand | |
| % Silt: 2 | pH: 6.1 | Soil Name: Tifton sandy loam | |
| % Clay: 4 | CEC: _____ | Fert. Level: _____ | |

ADDITIONAL MEASURED ELEMENTS

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

MOISTURE CONDITIONS

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

Overall Moisture Conditions: irrigated

Closest Weather Station: _____ Distance: _____ Unit: ____

APPLICATION DESCRIPTION

| | A | B |
|----------------------|-----------|-----------|
| Application Date: | Feb-08-06 | Feb-27-06 |
| Time of Day: | 10 am | 6 pm |
| Application Method: | broadcast | broadcast |
| Application Timing: | PRE | 2WAP |
| Applic. Placement: | on soil | overtop |
| Air Temp., Unit: | 54 F | 59 F |
| % Relative Humidity: | 24 | 28 |
| Wind Velocity, Unit: | 2 mph | 1 mph |
| Dew Presence (Y/N): | n | n |
| Water Hardness: | | |
| Soil Temp., Unit: | 54 F | 62 F |
| Soil Moisture: | moist | moist |
| % Cloud Cover: | 0 | 0 |

CROP STAGE AT EACH APPLICATION

| | A | B |
|---------------------|-----------|-------------|
| Crop 1 Code, Stage: | BRSRR PRE | BRSRR 2 WAP |
| Stage Scale: | not up | 1-2 lf |
| Height, Unit: | 0 inch | 0.5 inch |
| Crop 2 Code, Stage: | BRSOL PRE | BRSOL 2 WAP |
| Stage Scale: | not plant | 2 new lf |
| Height, Unit: | 0 inch | 3 inch |

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WEED STAGE AT EACH APPLICATION

| | A | B |
|----------------------------|-----------|-------------|
| Weed 1 Code, Stage: | LAMAM PRE | LAMAM 2 WAP |
| Stage Scale: | not up | not up |
| Density, Unit: | 10 ydsq | 10 ydsq |
| Weed 2 Code, Stage: | COPDI PRE | COPDI 2 WAP |
| Stage Scale: | not up | 0.25 inch |
| Density, Unit: | 0 ydsq | 8 ydsq |

APPLICATION EQUIPMENT

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

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