

Purdue University

Application Timing (Time of Day) Impact on Common Lambsquarters Efficacy with Glyphosate Combinations

Trial ID: 05-ACRE-CHEAL-DAYTIME
Location: ACRE

Study Dir.: Dr. Bill Johnson
Investigator: Dr. William G. Johnson

GENERAL TRIAL INFORMATION

Study Director: Vince Davis **Title:** Research Associate
Affiliation: Purdue University
Postal Code: 47907
Investigator: Dr. William G. Johnson **Title:** Associate Professor
Affiliation: Purdue University
Postal Code: 47907

TRIAL LOCATION

City: West Lafayette
State/Prov.: IN
Postal Code: 47906
Country: USA
Directions: Agronomy Center for Research and Education (ACRE) - Field 102

COOPERATOR/LANDOWNER

Cooperator: Agronomy Center for Res. & Educ. **Country:** USA
Phone No: 765-463-2632
Address 1: 4540 U.S. 52 West
City: West Lafayette
State/Prov: IN
Postal Code: 47906

Conducted Under GLP (Y/N): N **Conducted Under GEP (Y/N):** N

Objective: The objective of this experiment is to evaluate the impact of glyphosate application timing on lambsquarters control.

CROP AND WEED DESCRIPTION

| Weed | Code | Common Name | Scientific Name |
|------|-------|-----------------------|-------------------|
| 1. | CHEAL | Lambsquarters, common | Chenopodium album |

Crop 1: ZEAMX corn **Variety:** Harvest Residue
Row Spacing: 30 IN

SITE AND DESIGN

Plot Width, Unit: 10 FT **Plot Length, Unit:** 30 FT **Reps:** 4
Site Type: FIELD
Tillage Type: No-Till **Study Design:** RANDOMIZED COMPLETE BLOCK

| | Previous Crops | Previous Pesticides | Year |
|----|----------------|---------------------|------|
| 1. | corn | | 2004 |

MAINTENANCE

Field Prep./Maintenance: The plot area was mowed about 15 inches above the soil surface with the farms 15 foot batwing mower about a week ahead of the spray applications. Mowing just cut off the tops of groundsel plants and the tops of the corn stalks.

SOIL DESCRIPTION

% Sand: 35 **% OM:** 3 **Texture:** FINE SILTY LOAM
% Silt: 65 **pH:** 6.3 **Soil Name:** Raub / mixed, mesic, Aquic Argiudoll
% Clay: 80 **CEC:** 19 **Fert. Level:** GOOD

ADDITIONAL MEASURED ELEMENTS

| Element | Quantity | Unit |
|------------|----------|----------|
| Phosphorus | 44 | LBS/ACRE |
| Potassium | 193 | LBS/ACRE |
| Calcium | 4343 | LBS/ACRE |
| LBS/ACRE | 1079 | LBS/ACRE |

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APPLICATION DESCRIPTION

| | A | B | C | D | E |
|----------------------|------------|------------|------------|------------|------------|
| Application Date: | 9/Jun/2005 | 9/Jun/2005 | 9/Jun/2005 | 9/Jun/2005 | 9/Jun/2005 |
| Time of Day: | 6:20AM | 12:20PM | 6:08PM | 8:08PM | 10:08PM |
| Application Method: | SPRAY | SPRAY | SPRAY | SPRAY | SPRAY |
| Application Timing: | A | B | C | D | E |
| Applic. Placement: | BROFOL | BROFOL | BROFOL | BROFOL | BROFOL |
| Air Temp., Unit: | 71 F | 92 F | 88 F | 85 F | 76 F |
| % Relative Humidity: | 81 | 31 | 41 | 54 | 68.5 |
| Wind Velocity, Unit: | 0 mph | 1 mph | 5 mph | 0 mph | 0 mph |
| Soil Temp., Unit: | 70 F | 89 F | 87 F | 83 F | 80 F |
| Soil Moisture: | DRY | DRY | DRY | DRY | DRY |
| % Cloud Cover: | 90 | 5 | 30 | 20 | 5 |

CROP STAGE AT EACH APPLICATION

| | A | B | C | D | E |
|---------------------|---------------|---------------|-----------|-----------|-----------|
| Crop 1 Code, Stage: | ZEAMX residue | ZEAMX residue | ZEAMX | ZEAMX | ZEAMX |
| Stage Scale: | 80%residu | 80%residu | 80%residu | 80%residu | 80%residu |

WEED STAGE AT EACH APPLICATION

| | A | B | C | D | E |
|---------------------|---------------|---------|---------|---------|---------|
| Weed 1 Code, Stage: | CHEAL residue | CHEAL | CHEAL | CHEAL | CHEAL |
| Stage Scale: | 1-10" | 1-10" | 1-10" | 1-10" | 1-10" |
| Density, Unit: | 300 YD2 | 300 YD2 | 300 YD2 | 300 YD2 | 300 YD2 |

APPLICATION EQUIPMENT

| | A | B | C | D | E |
|-----------------------|-----------|-----------|-----------|-----------|-----------|
| Appl. Equipment: | BACKPACK | BACKPACK | BACKPACK | BACKPACK | BACKPACK |
| Operating Pressure: | 25 psi |
| Nozzle Type: | XR11002VS | XR11002VS | XR11002VS | XR11002VS | XR11002VS |
| Nozzle Size: | XR11002VS | XR11002VS | XR11002VS | XR11002VS | XR11002VS |
| Nozzle Spacing, Unit: | 20 IN |
| Boom Length, Unit: | 10 FT |
| Ground Speed, Unit: | 3 MPH |
| Carrier: | water | water | water | water | water |
| Spray Volume, Unit: | 15 gpa |
| Propellant: | CO2 | CO2 | CO2 | CO2 | CO2 |

| Trt No | Treatment Application Comment |
|--------|-------------------------------|
| 1 | |

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Location: ACRE

Study Dir.: Dr. Bill Johnson
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| | | | | | | | | CHEAL | CHEAL | |
|---------|-----------------|--------|---------|--------------|--------------|----------|-----------|-------------|------------|----|
| | | | | | | | | PLAQUA P | PLAQUA P | |
| | | | | | | | | Efficacy | Efficacy | |
| | | | | | | | | % | % | |
| | | | | | | | | 24/Jun/2005 | 8/Jul/2005 | |
| | | | | | | | | 2-15" | 4-32" | |
| | | | | | | | | 300 YD2 | 300 YD2 | |
| | | | | | | | | VMD | VMD | |
| | | | | | | | | 15 DA-A | 29 DA-A | |
| Trt No. | Treatment Name | Rate | Unit | Product Rate | Product Unit | Grow Stg | Appl Code | Plot | 1 | 2 |
| 1 | Untreated Check | | | | | | | 101 | 0 | 0 |
| | | | | | | | | 408 | 0 | 0 |
| | | | | | | | | 603 | 0 | 0 |
| | | | | | | | | 805 | 0 | 0 |
| | | | | | | | | Mean = | 0 | 0 |
| 2 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 6AM | A | 102 | 97 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 6AM | A | 407 | 95 | 97 |
| | | | | | | | | 609 | 95 | 99 |
| | | | | | | | | 807 | 94 | 96 |
| | | | | | | | | Mean = | 95 | 98 |
| 3 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 6AM | A | 103 | 93 | 97 |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 6AM | A | 310 | 93 | 97 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 6AM | A | 510 | 97 | 99 |
| | | | | | | | | 707 | 96 | 98 |
| | | | | | | | | Mean = | 95 | 98 |
| 4 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 6AM | A | 104 | 97 | 99 |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 6AM | A | 307 | 97 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 6AM | A | 507 | 99 | 99 |
| | HARMONY GT | 0.0052 | lb ai/a | 0.083 | oz ai/a | 6AM | A | 703 | 98 | 99 |
| | | | | | | | | Mean = | 98 | 99 |
| 5 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 6AM | A | 105 | 97 | 99 |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 6AM | A | 404 | 92 | 90 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 6AM | A | 605 | 96 | 99 |
| | RAPTOR | 0.0312 | lb ai/a | 4 | fl oz/a | 6AM | A | 802 | 98 | 99 |
| | | | | | | | | Mean = | 96 | 97 |
| 6 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 12PM | B | 106 | 98 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 12PM | B | 402 | 98 | 99 |
| | | | | | | | | 602 | 98 | 99 |
| | | | | | | | | 806 | 99 | 99 |
| | | | | | | | | Mean = | 98 | 99 |
| 7 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 12PM | B | 107 | 99 | 99 |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 12PM | B | 409 | 99 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 12PM | B | 610 | 99 | 99 |
| | | | | | | | | 704 | 99 | 99 |
| | | | | | | | | Mean = | 99 | 99 |
| 8 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 12PM | B | 108 | 99 | 99 |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 12PM | B | 410 | 99 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 12PM | B | 508 | 99 | 99 |
| | HARMONY GT | 0.0052 | lb ai/a | 0.083 | oz ai/a | 12PM | B | 708 | 99 | 99 |
| | | | | | | | | Mean = | 99 | 99 |
| 9 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 12PM | B | 109 | 99 | 99 |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 12PM | B | 306 | 99 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 12PM | B | 506 | 99 | 99 |
| | RAPTOR | 0.0312 | lb ai/a | 4 | fl oz/a | 12PM | B | 705 | 99 | 99 |
| | | | | | | | | Mean = | 99 | 99 |

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| Weed Code | | | | | | | | | CHEAL | CHEAL |
|--------------------|-----------------|--------|---------|--------------|--------------|----------|-----------|--------|-------------|------------|
| Part Rated | | | | | | | | | PLAQUA P | PLAQUA P |
| Rating Data Type | | | | | | | | | Efficacy | Efficacy |
| Rating Unit | | | | | | | | | % | % |
| Rating Date | | | | | | | | | 24/Jun/2005 | 8/Jul/2005 |
| Weed Stage | | | | | | | | | 2-15" | 4-32" |
| Weed Density, Unit | | | | | | | | | 300 YD2 | 300 YD2 |
| Assessed By | | | | | | | | | VMD | VMD |
| Trt-Eval Interval | | | | | | | | | 15 DA-A | 29 DA-A |
| Trt No. | Treatment Name | Rate | Unit | Product Rate | Product Unit | Grow Stg | Appl Code | Plot | 1 | 2 |
| 10 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 6PM | C | 110 | 99 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 6PM | C | 309 | 99 | 98 |
| | | | | | | | | 606 | 99 | 99 |
| | | | | | | | | 711 | 97 | 96 |
| | | | | | | | | Mean = | 99 | 98 |
| 11 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 6PM | C | 111 | 97 | 97 |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 6PM | C | 305 | 99 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 6PM | C | 501 | 99 | 99 |
| | | | | | | | | 810 | 99 | 99 |
| | | | | | | | | Mean = | 99 | 99 |
| 12 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 6PM | C | 210 | 99 | 99 |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 6PM | C | 308 | 99 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 6PM | C | 504 | 99 | 99 |
| | HARMONY GT | 0.0052 | lb ai/a | 0.083 | oz ai/a | 6PM | C | 811 | 98 | 97 |
| | | | | | | | | Mean = | 99 | 99 |
| 13 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 6PM | C | 211 | 99 | 99 |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 6PM | C | 411 | 99 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 6PM | C | 608 | 99 | 99 |
| | RAPTOR | 0.0312 | lb ai/a | 4 | fl oz/a | 6PM | C | 808 | 99 | 99 |
| | | | | | | | | Mean = | 99 | 99 |
| 14 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 8PM | D | 201 | 99 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 8PM | D | 403 | 98 | 99 |
| | | | | | | | | 607 | 98 | 99 |
| | | | | | | | | 710 | 99 | 99 |
| | | | | | | | | Mean = | 99 | 99 |
| 15 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 8PM | D | 202 | 99 | 99 |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 8PM | D | 311 | 97 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 8PM | D | 511 | 99 | 99 |
| | | | | | | | | 701 | 98 | 99 |
| | | | | | | | | Mean = | 98 | 99 |
| 16 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 8PM | D | 203 | 99 | 99 |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 8PM | D | 303 | 99 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 8PM | D | 505 | 99 | 99 |
| | HARMONY GT | 0.0052 | lb ai/a | 0.083 | oz ai/a | 8PM | D | 706 | 99 | 99 |
| | | | | | | | | Mean = | 99 | 99 |
| 17 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 8PM | D | 204 | 97 | 99 |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 8PM | D | 405 | 99 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 8PM | D | 503 | 99 | 99 |
| | RAPTOR | 0.0312 | lb ai/a | 4 | fl oz/a | 8PM | D | 804 | 98 | 99 |
| | | | | | | | | Mean = | 98 | 99 |
| 18 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 10PM | E | 205 | 93 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 10PM | E | 401 | 97 | 97 |
| | | | | | | | | 502 | 98 | 99 |
| | | | | | | | | 702 | 98 | 99 |
| | | | | | | | | Mean = | 97 | 99 |

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| Weed Code | | | | | | | | | CHEAL | CHEAL |
|--------------------|-----------------|--------|---------|--------------|-------------------|----------|-----------|--------|-------------|------------|
| Part Rated | | | | | | | | | PLAQUA P | PLAQUA P |
| Rating Data Type | | | | | | | | | Efficacy | Efficacy |
| Rating Unit | | | | | | | | | % | % |
| Rating Date | | | | | | | | | 24/Jun/2005 | 8/Jul/2005 |
| Weed Stage | | | | | | | | | 2-15" | 4-32" |
| Weed Density, Unit | | | | | | | | | 300 YD2 | 300 YD2 |
| Assessed By | | | | | | | | | VMD | VMD |
| Trt-Eval Interval | | | | | | | | | 15 DA-A | 29 DA-A |
| Trt No. | Treatment Name | Rate | Unit | Product Rate | Product Rate Unit | Grow Stg | Appl Code | Plot | 1 | 2 |
| 19 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 10PM | E | 206 | 98 | 93 |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 10PM | E | 304 | 99 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 10PM | E | 509 | 99 | 99 |
| | | | | | | | | 709 | 99 | 99 |
| | | | | | | | | Mean = | 99 | 98 |
| 20 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 10PM | E | 207 | 98 | 97 |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 10PM | E | 301 | 99 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 10PM | E | 604 | 99 | 99 |
| | HARMONY GT | 0.0052 | lb ai/a | 0.083 | oz ai/a | 10PM | E | 803 | 99 | 99 |
| | | | | | | | | Mean = | 99 | 99 |
| 21 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 10PM | E | 208 | 97 | 99 |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 10PM | E | 406 | 99 | 99 |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 10PM | E | 601 | 98 | 99 |
| | RAPTOR | 0.0312 | lb ai/a | 4 | fl oz/a | 10PM | E | 809 | 99 | 99 |
| | | | | | | | | Mean = | 98 | 99 |
| 22 | Untreated Check | | | | | | | 209 | 0 | 0 |
| | | | | | | | | 302 | 0 | 0 |
| | | | | | | | | 611 | 0 | 0 |
| | | | | | | | | 801 | 0 | 0 |
| | | | | | | | | Mean = | 0 | 0 |

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Study Dir.: Dr. Bill Johnson
Investigator: Dr. William G. Johnson

| Weed Code | | | | | | | | CHEAL | CHEAL |
|--------------------|-----------------|--------|-----------|--------------|-------------------|----------|-----------|-------------|------------|
| Part Rated | | | | | | | | PLAQUA P | PLAQUA P |
| Rating Data Type | | | | | | | | Efficacy | Efficacy |
| Rating Unit | | | | | | | | % | % |
| Rating Date | | | | | | | | 24/Jun/2005 | 8/Jul/2005 |
| Weed Stage | | | | | | | | 2-15" | 4-32" |
| Weed Density, Unit | | | | | | | | 300 YD2 | 300 YD2 |
| Assessed By | | | | | | | | VMD | VMD |
| Trt-Eval Interval | | | | | | | | 15 DA-A | 29 DA-A |
| Trt No. | Treatment Name | Rate | Rate Unit | Product Rate | Product Rate Unit | Grow Stg | Appl Code | 1 | 2 |
| 1 | Untreated Check | | | | | | | 0 e | 0 c |
| 2 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 6AM | A | 95 cd | 98 ab |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 6AM | A | | |
| 3 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 6AM | A | 95 d | 98 ab |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 6AM | A | | |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 6AM | A | | |
| 4 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 6AM | A | 98 ab | 99 a |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 6AM | A | | |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 6AM | A | | |
| | HARMONY GT | 0.0052 | lb ai/a | 0.083 | oz ai/a | 6AM | A | | |
| 5 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 6AM | A | 96 cd | 97 b |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 6AM | A | | |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 6AM | A | | |
| | RAPTOR | 0.0312 | lb ai/a | 4 | fl oz/a | 6AM | A | | |
| 6 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 12PM | B | 98 a | 99 a |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 12PM | B | | |
| 7 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 12PM | B | 99 a | 99 a |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 12PM | B | | |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 12PM | B | | |
| 8 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 12PM | B | 99 a | 99 a |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 12PM | B | | |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 12PM | B | | |
| | HARMONY GT | 0.0052 | lb ai/a | 0.083 | oz ai/a | 12PM | B | | |
| 9 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 12PM | B | 99 a | 99 a |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 12PM | B | | |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 12PM | B | | |
| | RAPTOR | 0.0312 | lb ai/a | 4 | fl oz/a | 12PM | B | | |
| 10 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 6PM | C | 99 a | 98 ab |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 6PM | C | | |
| 11 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 6PM | C | 99 a | 99 ab |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 6PM | C | | |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 6PM | C | | |
| 12 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 6PM | C | 99 a | 99 ab |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 6PM | C | | |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 6PM | C | | |
| | HARMONY GT | 0.0052 | lb ai/a | 0.083 | oz ai/a | 6PM | C | | |
| 13 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 6PM | C | 99 a | 99 a |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 6PM | C | | |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 6PM | C | | |
| | RAPTOR | 0.0312 | lb ai/a | 4 | fl oz/a | 6PM | C | | |

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| Weed Code | | | | | | | | CHEAL | CHEAL |
|--------------------|-----------------|--------|-----------|--------------|-------------------|----------|-----------|-------------|------------|
| Part Rated | | | | | | | | PLAQUA P | PLAQUA P |
| Rating Data Type | | | | | | | | Efficacy | Efficacy |
| Rating Unit | | | | | | | | % | % |
| Rating Date | | | | | | | | 24/Jun/2005 | 8/Jul/2005 |
| Weed Stage | | | | | | | | 2-15" | 4-32" |
| Weed Density, Unit | | | | | | | | 300 YD2 | 300 YD2 |
| Assessed By | | | | | | | | VMD | VMD |
| Trt-Eval Interval | | | | | | | | 15 DA-A | 29 DA-A |
| Trt No. | Treatment Name | Rate | Rate Unit | Product Rate | Product Rate Unit | Grow Stg | Appl Code | 1 | 2 |
| 14 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 8PM | D | 99 a | 99 a |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 8PM | D | | |
| 15 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 8PM | D | 98 a | 99 a |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 8PM | D | | |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 8PM | D | | |
| 16 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 8PM | D | 99 a | 99 a |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 8PM | D | | |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 8PM | D | | |
| | HARMONY GT | 0.0052 | lb ai/a | 0.083 | oz ai/a | 8PM | D | | |
| 17 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 8PM | D | 98 a | 99 a |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 8PM | D | | |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 8PM | D | | |
| | RAPTOR | 0.0312 | lb ai/a | 4 | fl oz/a | 8PM | D | | |
| 18 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 10PM | E | 97 bc | 99 ab |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 10PM | E | | |
| 19 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 10PM | E | 99 a | 98 ab |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 10PM | E | | |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 10PM | E | | |
| 20 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 10PM | E | 99 a | 99 ab |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 10PM | E | | |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 10PM | E | | |
| | HARMONY GT | 0.0052 | lb ai/a | 0.083 | oz ai/a | 10PM | E | | |
| 21 | AMS | 2.5 | lb ai/a | 2.5 | lb ai/a | 10PM | E | 98 a | 99 a |
| | NIS | 0.25 | % v/v | 0.25 | % v/v | 10PM | E | | |
| | TOUCHDOWN TOTAL | 0.75 | lb ae/a | 23 | fl oz/a | 10PM | E | | |
| | RAPTOR | 0.0312 | lb ai/a | 4 | fl oz/a | 10PM | E | | |
| 22 | Untreated Check | | | | | | | 0 e | 0 c |
| LSD (P=.05) | | | | | | | | 1.5 | 1.9 |
| Standard Deviation | | | | | | | | 1.1 | 1.3 |
| CV | | | | | | | | 1.18 | 1.47 |
| Grand Mean | | | | | | | | 89.08 | 89.58 |
| Bartlett's X2 | | | | | | | | 26.019 | 18.487 |
| P(Bartlett's X2) | | | | | | | | 0.026* | 0.018* |
| Replicate F | | | | | | | | 1.894 | 1.216 |
| Replicate Prob(F) | | | | | | | | 0.1397 | 0.3114 |
| Treatment F | | | | | | | | 3000.815 | 1945.460 |
| Treatment Prob(F) | | | | | | | | 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.