

University of Nebraska

Glyphosate Resistant Corn Herbicide Programs

Trial ID: L0714
Location: Havelock

Study Dir.: Kevin Horky
Investigator: Dr. Mark Bernards

GENERAL TRIAL INFORMATION

Study Director: Kevin Horky **Title:** Research Technician
Affiliation: University of Nebraska Lincoln
Postal Code: 68583
Investigator: Dr. Mark Bernards **Title:** Ext. Weed Specialist
Affiliation: University of Nebraska Lincoln
Postal Code: 68583

TRIAL LOCATION

City: Lincoln
State/Prov.: NE
Postal Code: 68583

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

CROP AND WEED DESCRIPTION

| Weed | Code | Common Name | Scientific Name |
|------|-------|------------------|----------------------|
| 1. | HELAN | Common sunflower | Helianthus annuus |
| 2. | AMAPA | Amaranth, Palmer | Amaranthus palmeri |
| 3. | ABUTH | Velvetleaf | Abutilon theophrasti |
| 4. | SETVI | Green foxtail | Setaria viridis |

Crop 1: ZEAMX CORN, FIELD **Variety:** Dekalb 6019 RR
Planting Date: 1/May/2007 **Planting Method:** planted
Rate: 22000 seeds/acre **Depth:** 1.5
Row Spacing: 30 in **Seed Bed:** medium
Soil Temperature: 11 C **Soil Moisture:** good **Emergence Date:** 8/May/2007

SITE AND DESIGN

Plot Width, Unit: 10 FT **Plot Length, Unit:** 30 FT **Reps:** 3
Site Type: field
Tillage Type: conventional **Study Design:** RANDOMIZED COMPLETE BLOCK

MAINTENANCE

Field Prep./Maintenance: Field was disked once, Anhydrous Ammonia was applied at a rate of 120 lbs of Nitrogen/ acre, field was then field cultivated once.

SOIL DESCRIPTION

% Sand: 7 **% OM:** 2.7 **Texture:** Silt loam
% Silt: 69 **pH:** 6.8 **Soil Name:** Sharpesburg
% Clay: 23 **CEC:** 26 **Fert. Level:** good

APPLICATION DESCRIPTION

| | A | B | C |
|-----------------------------|------------|-------------|------------|
| Application Date: | 2/May/2007 | 29/May/2007 | 4/Jun/2007 |
| Time of Day: | 10:00 am | 11:30 am | 1:30 pm |
| Application Method: | Spray | Spray | Spray |
| Application Timing: | pre | epost | mpost |
| Applic. Placement: | BROSOI | BROFOL | BROFOL |
| Air Temp., Unit: | 70 F | 72 F | 80 F |
| % Relative Humidity: | 20 | 60 | 26 |
| Wind Velocity, Unit: | 4.5 mph | 8 mph | 8 mph |
| Dew Presence (Y/N): | n | n | n |
| Soil Temp., Unit: | 11 C | 11 C | 15 C |
| Soil Moisture: | good | good | good |
| % Cloud Cover: | 30 | 100 | 35 |

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CROP STAGE AT EACH APPLICATION

| | A | B | C |
|----------------------------|-------|-------|-------|
| Crop 1 Code, Stage: | ZEAMX | ZEAMX | ZEAMX |
| Stage Scale: | pre | V4 | V5 |
| Height, Unit: | | 12 in | 15 in |

WEED STAGE AT EACH APPLICATION

| | A | B | C |
|----------------------------|-------|-------|-------|
| Weed 1 Code, Stage: | HELAN | HELAN | HELAN |
| Stage Scale: | pre | 3 in | 10 in |
| Density, Unit: | | 7 m2 | 7 m2 |
| Weed 2 Code, Stage: | AMAPA | AMAPA | AMAPA |
| Stage Scale: | pre | 2 in | 8 in |
| Density, Unit: | | 10 m2 | 15 m2 |
| Weed 3 Code, Stage: | ABUTH | ABUTH | ABUTH |
| Stage Scale: | pre | 2 in | 8 in |
| Density, Unit: | | 5 m2 | 5 m2 |
| Weed 4 Code, Stage: | SETVI | SETVI | SETVI |
| Stage Scale: | pre | 2 in | 5 in |
| Density, Unit: | | 5 m2 | 5 m2 |

APPLICATION EQUIPMENT

| | A | B | C |
|------------------------------|-----------|-----------|-----------|
| Appl. Equipment: | IH cub | IH cub | IH cub |
| Operating Pressure: | 30 | 30 | 30 |
| Nozzle Type: | Turbo Tee | Turbo Tee | Turbo Tee |
| Nozzle Size: | 110015 | 110015 | 110015 |
| Nozzle Spacing, Unit: | 15 in | 15 in | 15 in |
| Nozzles/Row: | 2 | 2 | 2 |
| Boom Length, Unit: | 10 ft | 10 ft | 10 ft |
| Boom Height, Unit: | 18 in | 24 in | 30 in |
| Ground Speed, Unit: | 3 mph | 3 mph | 3 mph |
| Carrier: | water | water | water |
| Spray Volume, Unit: | 15 gpa | 15 gpa | 15 gpa |
| Propellant: | air | air | air |

Trial Comments

Protocols - Gowan Per-07-17, Dow, BASF BAS756 in RR Corn.

Data Requested

Weed Control - prior to post, 14,28 and 56, 120 DAT

Crop Injury - 7, 14, 28 DAT

Yield

University of Nebraska

Glyphosate Resistant Corn Herbicide Programs

Trial ID: L0714

Study Dir.: Kevin Horky

Location: Havelock

Investigator: Dr. Mark Bernards

| Weed Code | AMAPA ZEAMX | HELAN ZEAMX | ABUTH ZEAMX | SETVI ZEAMX | ZEAMX PHYCHL | | |
|----------------------|----------------|-------------------|----------------|----------------|-----------------|----|----|
| Crop Code | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL | | |
| Rating Data Type | % | % | % | % | % | | |
| Rating Unit | 4/Jun/2007 | 4/Jun/2007 | 4/Jun/2007 | 4/Jun/2007 | 5/Jun/2007 | | |
| Rating Date | | | | | | | |
| ARM Action Codes | | | | | | | |
| # Subsamples, Dec. | | | | | | | |
| Trt Treatment | Rate | Grow | | | | | |
| No. Name | Rate Unit | Stg Plot | 1 | 2 | 3 | 4 | 5 |
| 1 Check | | 101 210 311 | | | | | |
| Mean = | | | . | . | . | . | . |
| 2 SureStart | 1.75 pt/a | pre 102 | 80 | 50 | 90 | 95 | |
| Durango | 24 oz/a | mpost 207 | 75 | 90 | 90 | 95 | |
| AMS | 2.5 lb/a | mpost 303 | 85 | 60 | 85 | 80 | |
| Mean = | | | 80 | 67 | 88 | 90 | . |
| 3 Keystone | 1.5 qt/a | pre 103 | 70 | 60 | 85 | 95 | |
| Durango | 24 oz/a | mpost 201 | 85 | 40 | 70 | 90 | |
| AMS | 2.5 lb/a | mpost 312 | 85 | 70 | 70 | 80 | |
| Mean = | | | 80 | 57 | 75 | 88 | . |
| 4 SureStart | 1.75 pt/a | epost 104 | | | | | 15 |
| Durango | 24 oz/a | epost 205 | | | | | 10 |
| AMS | 2.5 lb/a | epost 310 | | | | | 30 |
| Mean = | | | . | . | . | . | 18 |
| 5 BAS 756 | 2.5 pt/a | mpost 105 | | | | | |
| NIS | 1 pt/100 gal | mpost 212 | | | | | |
| AMS | 8.5 lb/100 gal | mpost 301 | | | | | |
| Mean = | | | . | . | . | . | . |
| 6 Roundup Weathermax | 22 oz/a | mpost 106 | | | | | |
| AMS | 8.5 lb/100 gal | mpost 209 | | | | | |
| NIS | 0.25 % v/v | mpost 307 | | | | | |
| Mean = | | | . | . | . | . | . |
| 7 Permit | 0.67 oz/a | mpost 107 | | | | | |
| Roundup Weathermax | 22 oz/a | mpost 206 | | | | | |
| AMS | 2 lb/a | mpost 304 | | | | | |
| NIS | 0.25 % v/v | mpost | | | | | |
| Mean = | | | . | . | . | . | . |
| 8 Permit | 0.5 oz/a | mpost 108 | | | | | |
| Roundup Weathermax | 22 oz/a | mpost 202 | | | | | |
| AMS | 2 lb/a | mpost 309 | | | | | |
| NIS | 0.25 % v/v | mpost | | | | | |
| Mean = | | | . | . | . | . | . |
| 9 Yukon | 4 oz/a | mpost 109 | | | | | |
| Roundup Weathermax | 22 oz/a | mpost 203 | | | | | |
| AMS | 2 lb/a | mpost 308 | | | | | |
| NIS | 0.25 % v/v | mpost | | | | | |
| Mean = | | | . | . | . | . | . |

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| Weed Code | | | | | | AMAPA | HELAN | ABUTH | SETVI | ZEAMX |
|--------------------|--------------------|------|------------|--------|------|------------|------------|------------|------------|------------|
| Crop Code | | | | | | ZEAMX | ZEAMX | ZEAMX | ZEAMX | ZEAMX |
| Rating Data Type | | | | | | CONTROL | CONTROL | CONTROL | CONTROL | PHYCHL |
| Rating Unit | | | | | | % | % | % | % | % |
| Rating Date | | | | | | 4/Jun/2007 | 4/Jun/2007 | 4/Jun/2007 | 4/Jun/2007 | 5/Jun/2007 |
| ARM Action Codes | | | | | | | | | | |
| # Subsamples, Dec. | | | | | | | | | | |
| Trt | Treatment | Rate | Grow | | | | | | | |
| No. | Name | Rate | Unit | Stg | Plot | 1 | 2 | 3 | 4 | 5 |
| 10 | Yukon | 3 | oz/a | mpost | 110 | | | | | |
| | Roundup Weathermax | 22 | oz/a | mpost | 204 | | | | | |
| | AMS | 2 | lb/a | mpost | 305 | | | | | |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| | | | | Mean = | | . | . | . | . | . |
| 11 | Halex | 4 | pt/a | epost | 111 | | | | | 20 |
| | Aatrex | 1 | pt/a | epost | 208 | | | | | 20 |
| | AMS | 8.5 | lb/100 gal | epost | 302 | | | | | 10 |
| | NIS | 0.25 | % v/v | epost | | | | | | |
| | | | | Mean = | | . | . | . | . | 17 |
| 12 | Bicep II Magnum | 2.1 | pt/a | pre | 112 | 50 | 65 | 65 | 70 | |
| | Halex | 4 | pt/a | mpost | 211 | 80 | 75 | 70 | 65 | |
| | AMS | 8.5 | lb/100 gal | mpost | 306 | 70 | 80 | 60 | 85 | |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| | | | | Mean = | | 67 | 73 | 65 | 73 | . |

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| Weed Code | | | | | HELAN | ABUTH | AMAPA | SETVI | HELAN | |
|--------------------|--------------------|------|------------|----------|-------------|-------------|-------------|-------------|------------|----|
| Crop Code | | | | | ZEAMX | ZEAMX | ZEAMX | ZEAMX | ZEAMX | |
| Rating Data Type | | | | | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL | |
| Rating Unit | | | | | % | % | % | % | % | |
| Rating Date | | | | | 18/Jun/2007 | 18/Jun/2007 | 18/Jun/2007 | 18/Jun/2007 | 3/Jul/2007 | |
| ARM Action Codes | | | | | | | | | | |
| # Subsamples, Dec. | | | | | | | | | | |
| Trt No. | Treatment Name | Rate | Unit | Grow Stg | Plot | 6 | 7 | 8 | 9 | 10 |
| 1 | Check | | | | 101 | 0 | 0 | 0 | 0 | 0 |
| | | | | | 210 | 0 | 0 | 0 | 0 | 0 |
| | | | | | 311 | 0 | 0 | 0 | 0 | 0 |
| | | | | | Mean = | 0 | 0 | 0 | 0 | 0 |
| 2 | SureStart | 1.75 | pt/a | pre | 102 | 95 | 95 | 99 | 99 | 95 |
| | Durango | 24 | oz/a | mpost | 207 | 99 | 99 | 99 | 99 | 99 |
| | AMS | 2.5 | lb/a | mpost | 303 | 99 | 99 | 99 | 99 | 99 |
| | | | | | Mean = | 98 | 98 | 99 | 99 | 98 |
| 3 | Keystone | 1.5 | qt/a | pre | 103 | 99 | 99 | 95 | 99 | 99 |
| | Durango | 24 | oz/a | mpost | 201 | 99 | 95 | 95 | 99 | 99 |
| | AMS | 2.5 | lb/a | mpost | 312 | 99 | 95 | 99 | 90 | 99 |
| | | | | | Mean = | 99 | 96 | 96 | 96 | 99 |
| 4 | SureStart | 1.75 | pt/a | epost | 104 | 99 | 99 | 99 | 95 | 99 |
| | Durango | 24 | oz/a | epost | 205 | 99 | 99 | 99 | 99 | 99 |
| | AMS | 2.5 | lb/a | epost | 310 | 99 | 95 | 99 | 99 | 99 |
| | | | | | Mean = | 99 | 98 | 99 | 98 | 99 |
| 5 | BAS 756 | 2.5 | pt/a | mpost | 105 | 99 | 99 | 85 | 90 | 99 |
| | NIS | 1 | pt/100 gal | mpost | 212 | 99 | 95 | 90 | 95 | 99 |
| | AMS | 8.5 | lb/100 gal | mpost | 301 | 99 | 90 | 85 | 95 | 99 |
| | | | | | Mean = | 99 | 95 | 87 | 93 | 99 |
| 6 | Roundup Weathermax | 22 | oz/a | mpost | 106 | 99 | 95 | 95 | 99 | 99 |
| | AMS | 8.5 | lb/100 gal | mpost | 209 | 99 | 99 | 90 | 99 | 99 |
| | NIS | 0.25 | % v/v | mpost | 307 | 99 | 90 | 90 | 99 | 99 |
| | | | | | Mean = | 99 | 95 | 92 | 99 | 99 |
| 7 | Permit | 0.67 | oz/a | mpost | 107 | 99 | 95 | 95 | 99 | 99 |
| | Roundup Weathermax | 22 | oz/a | mpost | 206 | 99 | 99 | 95 | 99 | 99 |
| | AMS | 2 | lb/a | mpost | 304 | 99 | 99 | 95 | 99 | 99 |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| | | | | | Mean = | 99 | 98 | 95 | 99 | 99 |
| 8 | Permit | 0.5 | oz/a | mpost | 108 | 99 | 99 | 90 | 99 | 99 |
| | Roundup Weathermax | 22 | oz/a | mpost | 202 | 99 | 95 | 95 | 99 | 99 |
| | AMS | 2 | lb/a | mpost | 309 | 99 | 99 | 90 | 99 | 99 |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| | | | | | Mean = | 99 | 98 | 92 | 99 | 99 |
| 9 | Yukon | 4 | oz/a | mpost | 109 | 99 | 95 | 90 | 99 | 99 |
| | Roundup Weathermax | 22 | oz/a | mpost | 203 | 99 | 99 | 95 | 99 | 99 |
| | AMS | 2 | lb/a | mpost | 308 | 99 | 95 | 90 | 99 | 99 |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| | | | | | Mean = | 99 | 96 | 92 | 99 | 99 |
| 10 | Yukon | 3 | oz/a | mpost | 110 | 99 | 95 | 95 | 99 | 99 |
| | Roundup Weathermax | 22 | oz/a | mpost | 204 | 99 | 99 | 95 | 99 | 99 |
| | AMS | 2 | lb/a | mpost | 305 | 99 | 95 | 95 | 99 | 99 |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| | | | | | Mean = | 99 | 96 | 95 | 99 | 99 |

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| Weed Code | | | | | HELAN | ABUTH | AMAPA | SETVI | HELAN | |
|--------------------|-----------------|------|------------|--------|-------------|-------------|-------------|-------------|------------|----|
| Crop Code | | | | | ZEAMX | ZEAMX | ZEAMX | ZEAMX | ZEAMX | |
| Rating Data Type | | | | | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL | |
| Rating Unit | | | | | % | % | % | % | % | |
| Rating Date | | | | | 18/Jun/2007 | 18/Jun/2007 | 18/Jun/2007 | 18/Jun/2007 | 3/Jul/2007 | |
| ARM Action Codes | | | | | | | | | | |
| # Subsamples, Dec. | | | | | | | | | | |
| Trt | Treatment | Rate | Grow | | | | | | | |
| No. | Name | Rate | Unit | Stg | Plot | 6 | 7 | 8 | 9 | 10 |
| 11 | Halex | 4 | pt/a | epost | 111 | 99 | 99 | 99 | 90 | 99 |
| | Aatrex | 1 | pt/a | epost | 208 | 99 | 99 | 99 | 99 | 99 |
| | AMS | 8.5 | lb/100 gal | epost | 302 | 99 | 99 | 99 | 99 | 99 |
| | NIS | 0.25 | % v/v | epost | | | | | | |
| | | | | Mean = | | 99 | 99 | 99 | 96 | 99 |
| 12 | Bicep II Magnum | 2.1 | pt/a | pre | 112 | 99 | 99 | 99 | 99 | 99 |
| | Halex | 4 | pt/a | mpost | 211 | 99 | 95 | 99 | 99 | 99 |
| | AMS | 8.5 | lb/100 gal | mpost | 306 | 99 | 99 | 99 | 99 | 99 |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| | | | | Mean = | | 99 | 98 | 99 | 99 | 99 |

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| Weed Code | | | | | ABUTH | AMAPA | SETVI | HELAN | ABUTH |
|--------------------|--------------------|----------------|-------|--------|------------|------------|------------|-------------|-------------|
| Crop Code | | | | | ZEAMX | ZEAMX | ZEAMX | ZEAMX | ZEAMX |
| Rating Data Type | | | | | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 3/Jul/2007 | 3/Jul/2007 | 3/Jul/2007 | 30/Jul/2007 | 30/Jul/2007 |
| ARM Action Codes | | | | | | | | | |
| # Subsamples, Dec. | | | | | | | | | |
| Trt | Treatment | Rate | Grow | Plot | 11 | 12 | 13 | 14 | 15 |
| No. | Name | Rate Unit | Stg | | | | | | |
| 1 | Check | | | 101 | 0 | 0 | 0 | 0 | 0 |
| | | | | 210 | 0 | 0 | 0 | 0 | 0 |
| | | | | 311 | 0 | 0 | 0 | 0 | 0 |
| | | | | Mean = | 0 | 0 | 0 | 0 | 0 |
| 2 | SureStart | 1.75 pt/a | pre | 102 | 95 | 99 | 99 | 95 | 95 |
| | Durango | 24 oz/a | mpost | 207 | 99 | 99 | 99 | 95 | 95 |
| | AMS | 2.5 lb/a | mpost | 303 | 99 | 99 | 99 | 95 | 95 |
| | | | | Mean = | 98 | 99 | 99 | 95 | 95 |
| 3 | Keystone | 1.5 qt/a | pre | 103 | 99 | 95 | 99 | 95 | 95 |
| | Durango | 24 oz/a | mpost | 201 | 95 | 95 | 99 | 95 | 95 |
| | AMS | 2.5 lb/a | mpost | 312 | 95 | 99 | 90 | 95 | 95 |
| | | | | Mean = | 96 | 96 | 96 | 95 | 95 |
| 4 | SureStart | 1.75 pt/a | epost | 104 | 99 | 99 | 95 | 95 | 90 |
| | Durango | 24 oz/a | epost | 205 | 99 | 99 | 99 | 90 | 90 |
| | AMS | 2.5 lb/a | epost | 310 | 95 | 99 | 99 | 95 | 90 |
| | | | | Mean = | 98 | 99 | 98 | 93 | 90 |
| 5 | BAS 756 | 2.5 pt/a | mpost | 105 | 99 | 85 | 90 | 85 | 80 |
| | NIS | 1 pt/100 gal | mpost | 212 | 90 | 90 | 95 | 90 | 85 |
| | AMS | 8.5 lb/100 gal | mpost | 301 | 85 | 85 | 95 | 90 | 85 |
| | | | | Mean = | 91 | 87 | 93 | 88 | 83 |
| 6 | Roundup Weathermax | 22 oz/a | mpost | 106 | 95 | 95 | 99 | 90 | 80 |
| | AMS | 8.5 lb/100 gal | mpost | 209 | 99 | 90 | 99 | 90 | 80 |
| | NIS | 0.25 % v/v | mpost | 307 | 85 | 85 | 99 | 90 | 85 |
| | | | | Mean = | 93 | 90 | 99 | 90 | 82 |
| 7 | Permit | 0.67 oz/a | mpost | 107 | 95 | 95 | 99 | 90 | 95 |
| | Roundup Weathermax | 22 oz/a | mpost | 206 | 99 | 95 | 99 | 90 | 95 |
| | AMS | 2 lb/a | mpost | 304 | 99 | 95 | 99 | 90 | 95 |
| | NIS | 0.25 % v/v | mpost | | | | | | |
| | | | | Mean = | 98 | 95 | 99 | 90 | 95 |
| 8 | Permit | 0.5 oz/a | mpost | 108 | 99 | 90 | 99 | 90 | 90 |
| | Roundup Weathermax | 22 oz/a | mpost | 202 | 95 | 95 | 99 | 90 | 90 |
| | AMS | 2 lb/a | mpost | 309 | 99 | 90 | 99 | 95 | 90 |
| | NIS | 0.25 % v/v | mpost | | | | | | |
| | | | | Mean = | 98 | 92 | 99 | 92 | 90 |
| 9 | Yukon | 4 oz/a | mpost | 109 | 95 | 90 | 99 | 95 | 95 |
| | Roundup Weathermax | 22 oz/a | mpost | 203 | 99 | 95 | 99 | 90 | 95 |
| | AMS | 2 lb/a | mpost | 308 | 95 | 90 | 99 | 95 | 95 |
| | NIS | 0.25 % v/v | mpost | | | | | | |
| | | | | Mean = | 96 | 92 | 99 | 93 | 95 |
| 10 | Yukon | 3 oz/a | mpost | 110 | 95 | 95 | 99 | 99 | 95 |
| | Roundup Weathermax | 22 oz/a | mpost | 204 | 99 | 95 | 99 | 95 | 95 |
| | AMS | 2 lb/a | mpost | 305 | 95 | 95 | 99 | 95 | 95 |
| | NIS | 0.25 % v/v | mpost | | | | | | |
| | | | | Mean = | 96 | 95 | 99 | 96 | 95 |

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| Weed Code | | | | | | ABUTH | AMAPA | SETVI | HELAN | ABUTH |
|--------------------|-----------------|------|------------|--------|------|------------|------------|------------|-------------|-------------|
| Crop Code | | | | | | ZEAMX | ZEAMX | ZEAMX | ZEAMX | ZEAMX |
| Rating Data Type | | | | | | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL |
| Rating Unit | | | | | | % | % | % | % | % |
| Rating Date | | | | | | 3/Jul/2007 | 3/Jul/2007 | 3/Jul/2007 | 30/Jul/2007 | 30/Jul/2007 |
| ARM Action Codes | | | | | | | | | | |
| # Subsamples, Dec. | | | | | | | | | | |
| Trt | Treatment | Rate | Grow | | | | | | | |
| No. | Name | Rate | Unit | Stg | Plot | 11 | 12 | 13 | 14 | 15 |
| 11 | Halex | 4 | pt/a | epost | 111 | 99 | 99 | 90 | 90 | 99 |
| | Aatrex | 1 | pt/a | epost | 208 | 99 | 99 | 99 | 90 | 99 |
| | AMS | 8.5 | lb/100 gal | epost | 302 | 99 | 99 | 99 | 90 | 99 |
| | NIS | 0.25 | % v/v | epost | | | | | | |
| | | | | Mean = | | 99 | 99 | 96 | 90 | 99 |
| 12 | Bicep II Magnum | 2.1 | pt/a | pre | 112 | 99 | 99 | 99 | 95 | 99 |
| | Halex | 4 | pt/a | mpost | 211 | 95 | 99 | 99 | 95 | 99 |
| | AMS | 8.5 | lb/100 gal | mpost | 306 | 99 | 99 | 99 | 90 | 99 |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| | | | | Mean = | | 98 | 99 | 99 | 93 | 99 |

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| Weed Code | | | | | AMAPA | SETVI | HELAN | ABUTH | AMAPA | |
|--------------------|--------------------|------|------------|----------|-------------|-------------|------------|------------|------------|----|
| Crop Code | | | | | ZEAMX | ZEAMX | ZEAMX | ZEAMX | ZEAMX | |
| Rating Data Type | | | | | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL | |
| Rating Unit | | | | | % | % | % | % | % | |
| Rating Date | | | | | 30/Jul/2007 | 30/Jul/2007 | 1/Oct/2007 | 1/Oct/2007 | 1/Oct/2007 | |
| ARM Action Codes | | | | | | | | | | |
| # Subsamples, Dec. | | | | | | | | | | |
| Trt No. | Treatment Name | Rate | Unit | Grow Stg | Plot | 16 | 17 | 18 | 19 | 20 |
| 1 | Check | | | | 101 | 0 | 0 | 0 | 0 | 0 |
| | | | | | 210 | 0 | 0 | 0 | 0 | 0 |
| | | | | | 311 | 0 | 0 | 0 | 0 | 0 |
| | | | | | Mean = | 0 | 0 | 0 | 0 | 0 |
| 2 | SureStart | 1.75 | pt/a | pre | 102 | 95 | 95 | 90 | 95 | 95 |
| | Durango | 24 | oz/a | mpost | 207 | 95 | 95 | 99 | 95 | 95 |
| | AMS | 2.5 | lb/a | mpost | 303 | 95 | 95 | 95 | 99 | 95 |
| | | | | | Mean = | 95 | 95 | 95 | 96 | 95 |
| 3 | Keystone | 1.5 | qt/a | pre | 103 | 95 | 90 | 95 | 95 | 99 |
| | Durango | 24 | oz/a | mpost | 201 | 95 | 95 | 95 | 99 | 99 |
| | AMS | 2.5 | lb/a | mpost | 312 | 95 | 90 | 90 | 95 | 99 |
| | | | | | Mean = | 95 | 92 | 93 | 96 | 99 |
| 4 | SureStart | 1.75 | pt/a | epost | 104 | 90 | 90 | 99 | 99 | 95 |
| | Durango | 24 | oz/a | epost | 205 | 90 | 90 | 95 | 95 | 95 |
| | AMS | 2.5 | lb/a | epost | 310 | 90 | 90 | 90 | 90 | 95 |
| | | | | | Mean = | 90 | 90 | 95 | 95 | 95 |
| 5 | BAS 756 | 2.5 | pt/a | mpost | 105 | 90 | 95 | 90 | 90 | 95 |
| | NIS | 1 | pt/100 gal | mpost | 212 | 90 | 95 | 90 | 95 | 90 |
| | AMS | 8.5 | lb/100 gal | mpost | 301 | 90 | 95 | 90 | 90 | 90 |
| | | | | | Mean = | 90 | 95 | 90 | 92 | 92 |
| 6 | Roundup Weathermax | 22 | oz/a | mpost | 106 | 90 | 95 | 90 | 90 | 90 |
| | AMS | 8.5 | lb/100 gal | mpost | 209 | 90 | 95 | 90 | 90 | 90 |
| | NIS | 0.25 | % v/v | mpost | 307 | 90 | 90 | 90 | 90 | 90 |
| | | | | | Mean = | 90 | 93 | 90 | 90 | 90 |
| 7 | Permit | 0.67 | oz/a | mpost | 107 | 85 | 95 | 90 | 95 | 90 |
| | Roundup Weathermax | 22 | oz/a | mpost | 206 | 90 | 90 | 95 | 99 | 95 |
| | AMS | 2 | lb/a | mpost | 304 | 90 | 95 | 90 | 95 | 90 |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| | | | | | Mean = | 88 | 93 | 92 | 96 | 92 |
| 8 | Permit | 0.5 | oz/a | mpost | 108 | 90 | 90 | 90 | 95 | 90 |
| | Roundup Weathermax | 22 | oz/a | mpost | 202 | 95 | 90 | 90 | 95 | 90 |
| | AMS | 2 | lb/a | mpost | 309 | 90 | 90 | 90 | 90 | 90 |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| | | | | | Mean = | 92 | 90 | 90 | 93 | 90 |
| 9 | Yukon | 4 | oz/a | mpost | 109 | 80 | 95 | 95 | 95 | 90 |
| | Roundup Weathermax | 22 | oz/a | mpost | 203 | 85 | 95 | 90 | 99 | 90 |
| | AMS | 2 | lb/a | mpost | 308 | 80 | 95 | 90 | 90 | 85 |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| | | | | | Mean = | 82 | 95 | 92 | 95 | 88 |
| 10 | Yukon | 3 | oz/a | mpost | 110 | 90 | 90 | 99 | 95 | 85 |
| | Roundup Weathermax | 22 | oz/a | mpost | 204 | 90 | 95 | 95 | 99 | 85 |
| | AMS | 2 | lb/a | mpost | 305 | 90 | 90 | 90 | 95 | 85 |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| | | | | | Mean = | 90 | 92 | 95 | 96 | 85 |

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| Weed Code | | | | | | AMAPA | SETVI | HELAN | ABUTH | AMAPA |
|--------------------|-----------------|------|------------|-------|--------|-------------|-------------|------------|------------|------------|
| Crop Code | | | | | | ZEAMX | ZEAMX | ZEAMX | ZEAMX | ZEAMX |
| Rating Data Type | | | | | | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL |
| Rating Unit | | | | | | % | % | % | % | % |
| Rating Date | | | | | | 30/Jul/2007 | 30/Jul/2007 | 1/Oct/2007 | 1/Oct/2007 | 1/Oct/2007 |
| ARM Action Codes | | | | | | | | | | |
| # Subsamples, Dec. | | | | | | | | | | |
| Trt | Treatment | Rate | Grow | | | | | | | |
| No. | Name | Rate | Unit | Stg | Plot | 16 | 17 | 18 | 19 | 20 |
| 11 | Halex | 4 | pt/a | epost | 111 | 95 | 90 | 95 | 95 | 95 |
| | Aatrex | 1 | pt/a | epost | 208 | 95 | 90 | 95 | 95 | 95 |
| | AMS | 8.5 | lb/100 gal | epost | 302 | 95 | 90 | 90 | 99 | 95 |
| | NIS | 0.25 | % v/v | epost | | | | | | |
| | | | | | Mean = | 95 | 90 | 93 | 96 | 95 |
| 12 | Bicep II Magnum | 2.1 | pt/a | pre | 112 | 90 | 95 | 99 | 99 | 95 |
| | Halex | 4 | pt/a | mpost | 211 | 90 | 95 | 90 | 99 | 90 |
| | AMS | 8.5 | lb/100 gal | mpost | 306 | 90 | 95 | 90 | 99 | 90 |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| | | | | | Mean = | 90 | 95 | 93 | 99 | 92 |

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| Weed Code | | | | | SETVI | | | |
|--------------------|--------------------|----------------|-------|--------|------------|-------------|-------------|-------------|
| Crop Code | | | | | ZEAMX | ZEAMX | ZEAMX | ZEAMX |
| Rating Data Type | | | | | CONTROL | YIELD | MOICON | YIELD |
| Rating Unit | | | | | % | LB | % | bu/ac |
| Rating Date | | | | | 1/Oct/2007 | 24/Oct/2007 | 24/Oct/2007 | 24/Oct/2007 |
| ARM Action Codes | | | | | | | | TY1 |
| # Subsamples, Dec. | | | | | | | | 1 |
| Trt | Treatment | Rate | Grow | Plot | 21 | 22 | 23 | 24 |
| No. | Name | Rate Unit | Stg | | | | | |
| 1 | Check | | | 101 | 0 | 3 | 16 | 7.9 |
| | | | | 210 | 0 | 4 | 17 | 9.4 |
| | | | | 311 | 0 | 3 | 17 | 8.7 |
| | | | | Mean = | 0 | 3 | 16 | 8.7 |
| 2 | SureStart | 1.75 pt/a | pre | 102 | 95 | 50 | 16 | 127.5 |
| | Durango | 24 oz/a | mpost | 207 | 95 | 55 | 16 | 141.4 |
| | AMS | 2.5 lb/a | mpost | 303 | 90 | 55 | 16 | 139.5 |
| | | | | Mean = | 93 | 53 | 16 | 136.1 |
| 3 | Keystone | 1.5 qt/a | pre | 103 | 95 | 53 | 16 | 134.5 |
| | Durango | 24 oz/a | mpost | 201 | 95 | 44 | 16 | 112.5 |
| | AMS | 2.5 lb/a | mpost | 312 | 90 | 45 | 16 | 114.2 |
| | | | | Mean = | 93 | 47 | 16 | 120.4 |
| 4 | SureStart | 1.75 pt/a | epost | 104 | 95 | 59 | 16 | 151.3 |
| | Durango | 24 oz/a | epost | 205 | 90 | 56 | 16 | 143.5 |
| | AMS | 2.5 lb/a | epost | 310 | 90 | 52 | 16 | 133.0 |
| | | | | Mean = | 92 | 56 | 16 | 142.6 |
| 5 | BAS 756 | 2.5 pt/a | mpost | 105 | 90 | 54 | 17 | 137.9 |
| | NIS | 1 pt/100 gal | mpost | 212 | 95 | 48 | 16 | 123.6 |
| | AMS | 8.5 lb/100 gal | mpost | 301 | 95 | 43 | 16 | 108.9 |
| | | | | Mean = | 93 | 48 | 16 | 123.5 |
| 6 | Roundup Weathermax | 22 oz/a | mpost | 106 | 95 | 55 | 16 | 141.1 |
| | AMS | 8.5 lb/100 gal | mpost | 209 | 90 | 52 | 17 | 133.5 |
| | NIS | 0.25 % v/v | mpost | 307 | 90 | 55 | 16 | 139.6 |
| | | | | Mean = | 92 | 54 | 16 | 138.0 |
| 7 | Permit | 0.67 oz/a | mpost | 107 | 90 | 57 | 17 | 144.7 |
| | Roundup Weathermax | 22 oz/a | mpost | 206 | 90 | 54 | 17 | 137.8 |
| | AMS | 2 lb/a | mpost | 304 | 90 | 53 | 16 | 136.2 |
| | NIS | 0.25 % v/v | mpost | | | | | |
| | | | | Mean = | 90 | 55 | 16 | 139.6 |
| 8 | Permit | 0.5 oz/a | mpost | 108 | 95 | 52 | 16 | 132.7 |
| | Roundup Weathermax | 22 oz/a | mpost | 202 | 90 | 43 | 17 | 108.8 |
| | AMS | 2 lb/a | mpost | 309 | 90 | 54 | 16 | 138.0 |
| | NIS | 0.25 % v/v | mpost | | | | | |
| | | | | Mean = | 92 | 50 | 16 | 126.5 |
| 9 | Yukon | 4 oz/a | mpost | 109 | 90 | 53 | 16 | 136.1 |
| | Roundup Weathermax | 22 oz/a | mpost | 203 | 90 | 52 | 16 | 132.2 |
| | AMS | 2 lb/a | mpost | 308 | 90 | 54 | 17 | 136.2 |
| | NIS | 0.25 % v/v | mpost | | | | | |
| | | | | Mean = | 90 | 53 | 16 | 134.8 |
| 10 | Yukon | 3 oz/a | mpost | 110 | 90 | 49 | 16 | 126.1 |
| | Roundup Weathermax | 22 oz/a | mpost | 204 | 90 | 52 | 16 | 133.4 |
| | AMS | 2 lb/a | mpost | 305 | 90 | 53 | 16 | 134.4 |
| | NIS | 0.25 % v/v | mpost | | | | | |
| | | | | Mean = | 90 | 51 | 16 | 131.3 |

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| Weed Code | | | | | | SETVI | | | |
|--|-----------------|------|------------|-------|--------|------------|-------------|-------------|-------------|
| Crop Code | | | | | | ZEAMX | ZEAMX | ZEAMX | ZEAMX |
| Rating Data Type | | | | | | CONTROL | YIELD | MOICON | YIELD |
| Rating Unit | | | | | | % | LB | % | bu/ac |
| Rating Date | | | | | | 1/Oct/2007 | 24/Oct/2007 | 24/Oct/2007 | 24/Oct/2007 |
| ARM Action Codes | | | | | | | | | TY1 |
| # Subsamples, Dec. | | | | | | | | | 1 |
| Trt | Treatment | Rate | Rate | Grow | | | | | |
| No. | Name | Rate | Unit | Stg | Plot | 21 | 22 | 23 | 24 |
| 11 | Halex | 4 | pt/a | epost | 111 | 80 | 52 | 16 | 131.5 |
| | Aatrex | 1 | pt/a | epost | 208 | 90 | 51 | 16 | 131.4 |
| | AMS | 8.5 | lb/100 gal | epost | 302 | 90 | 48 | 16 | 123.1 |
| | NIS | 0.25 | % v/v | epost | | | | | |
| | | | | | Mean = | 87 | 50 | 16 | 128.6 |
| 12 | Bicep II Magnum | 2.1 | pt/a | pre | 112 | 95 | 57 | 16 | 145.1 |
| | Halex | 4 | pt/a | mpost | 211 | 95 | 52 | 16 | 133.0 |
| | AMS | 8.5 | lb/100 gal | mpost | 306 | 95 | 56 | 16 | 143.8 |
| | NIS | 0.25 | % v/v | mpost | | | | | |
| | | | | | Mean = | 95 | 55 | 16 | 140.7 |
| Column 24: TY1 = 2.592857*[22]*(100-[23])/85 | | | | | | | | | |

University of Nebraska

Glyphosate Resistant Corn Herbicide Programs

Trial ID: L0714

Study Dir.: Kevin Horkey

Location: Havelock

Investigator: Dr. Mark Bernards

| Weed Code | | AMAPA | HELAN | ABUTH | SETVI | | HELAN | | | |
|--------------------|--------------------|------------|------------|------------|------------|------------|-------------|--------|--------|----------|
| Crop Code | | ZEAMX | ZEAMX | ZEAMX | ZEAMX | ZEAMX | ZEAMX | | | |
| Rating Data Type | | CONTROL | CONTROL | CONTROL | CONTROL | PHYCHL | CONTROL | | | |
| Rating Unit | | % | % | % | % | % | % | | | |
| Rating Date | | 4/Jun/2007 | 4/Jun/2007 | 4/Jun/2007 | 4/Jun/2007 | 5/Jun/2007 | 18/Jun/2007 | | | |
| ARM Action Codes | | | | | | | | | | |
| # Subsamples, Dec. | | | | | | | | | | |
| Trt No. | Treatment Name | Rate | Unit | Grow Stg | 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | Check | | | | | | | | | 0 b |
| 2 | SureStart | 1.75 | pt/a | pre | 80 a | 67 a | 88 A | 90 a | | 98 a |
| | Durango | 24 | oz/a | mpost | | | | | | |
| | AMS | 2.5 | lb/a | mpost | | | | | | |
| 3 | Keystone | 1.5 | qt/a | pre | 80 a | 57 a | 75 b | 88 a | | 99 a |
| | Durango | 24 | oz/a | mpost | | | | | | |
| | AMS | 2.5 | lb/a | mpost | | | | | | |
| 4 | SureStart | 1.75 | pt/a | epost | | | | | 18 a | 99 a |
| | Durango | 24 | oz/a | epost | | | | | | |
| | AMS | 2.5 | lb/a | epost | | | | | | |
| 5 | BAS 756 | 2.5 | pt/a | mpost | | | | | | 99 a |
| | NIS | 1 | pt/100 gal | mpost | | | | | | |
| | AMS | 8.5 | lb/100 gal | mpost | | | | | | |
| 6 | Roundup Weathermax | 22 | oz/a | mpost | | | | | | 99 a |
| | AMS | 8.5 | lb/100 gal | mpost | | | | | | |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| 7 | Permit | 0.67 | oz/a | mpost | | | | | | 99 a |
| | Roundup Weathermax | 22 | oz/a | mpost | | | | | | |
| | AMS | 2 | lb/a | mpost | | | | | | |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| 8 | Permit | 0.5 | oz/a | mpost | | | | | | 99 a |
| | Roundup Weathermax | 22 | oz/a | mpost | | | | | | |
| | AMS | 2 | lb/a | mpost | | | | | | |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| 9 | Yukon | 4 | oz/a | mpost | | | | | | 99 a |
| | Roundup Weathermax | 22 | oz/a | mpost | | | | | | |
| | AMS | 2 | lb/a | mpost | | | | | | |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| 10 | Yukon | 3 | oz/a | mpost | | | | | | 99 a |
| | Roundup Weathermax | 22 | oz/a | mpost | | | | | | |
| | AMS | 2 | lb/a | mpost | | | | | | |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| 11 | Halex | 4 | pt/a | epost | | | | | 17 a | 99 a |
| | Aatrex | 1 | pt/a | epost | | | | | | |
| | AMS | 8.5 | lb/100 gal | epost | | | | | | |
| | NIS | 0.25 | % v/v | epost | | | | | | |
| 12 | Bicep II Magnum | 2.1 | pt/a | pre | 67 a | 73 a | 65 b | 73 a | | 99 a |
| | Halex | 4 | pt/a | mpost | | | | | | |
| | AMS | 8.5 | lb/100 gal | mpost | | | | | | |
| | NIS | 0.25 | % v/v | mpost | | | | | | |
| LSD (P=.05) | | | | | 20.0 | 39.4 | 11.9 | 23.9 | 39.9 | 1.1 |
| Standard Deviation | | | | | 8.8 | 17.4 | 5.3 | 10.5 | 11.4 | 0.7 |
| CV | | | | | 11.67 | 26.54 | 6.92 | 12.57 | 64.94 | 0.74 |
| Grand Mean | | | | | 75.56 | 65.56 | 76.11 | 83.89 | 17.5 | 90.64 |
| Bartlett's X2 | | | | | 2.204 | 1.683 | 2.128 | 0.189 | 0.644 | 0.0 |
| P(Bartlett's X2) | | | | | 0.332 | 0.431 | 0.345 | 0.91 | 0.422 | . |
| Replicate F | | | | | 2.286 | 0.394 | 1.900 | 0.175 | 0.097 | 1.000 |
| Replicate Prob(F) | | | | | 0.2178 | 0.6976 | 0.2630 | 0.8456 | 0.9118 | 0.3840 |
| Treatment F | | | | | 2.286 | 0.697 | 14.800 | 2.275 | 0.032 | 5500.563 |
| Treatment Prob(F) | | | | | 0.2178 | 0.5498 | 0.0142 | 0.2189 | 0.8740 | 0.0001 |

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| | | | | | | |
|--------------------|------------|------------|------------|------------|------------|-------------|
| Weed Code | AMAPA | HELAN | ABUTH | SETVI | | HELAN |
| Crop Code | ZEAMX | ZEAMX | ZEAMX | ZEAMX | | ZEAMX |
| Rating Data Type | CONTROL | CONTROL | CONTROL | CONTROL | PHYCHL | CONTROL |
| Rating Unit | % | % | % | % | % | % |
| Rating Date | 4/Jun/2007 | 4/Jun/2007 | 4/Jun/2007 | 4/Jun/2007 | 5/Jun/2007 | 18/Jun/2007 |
| ARM Action Codes | | | | | | |
| # Subsamples, Dec. | | | | | | |

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

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

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| Weed Code | | | | ABUTH ZEAMX CONTROL % | AMAPA ZEAMX CONTROL % | SETVI ZEAMX CONTROL % | HELAN ZEAMX CONTROL % | ABUTH ZEAMX CONTROL % | AMAPA ZEAMX CONTROL % |
|--------------------|--------------------|----------------|----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Crop Code | | | | 18/Jun/2007 | 18/Jun/2007 | 18/Jun/2007 | 3/Jul/2007 | 3/Jul/2007 | 3/Jul/2007 |
| Rating Data Type | | | | | | | | | |
| Rating Unit | | | | | | | | | |
| Rating Date | | | | | | | | | |
| ARM Action Codes | | | | | | | | | |
| # Subsamples, Dec. | | | | | | | | | |
| Trt No. | Treatment Name | Rate | Grow Stg | 7 | 8 | 9 | 10 | 11 | 12 |
| 1 | Check | | | 0 b | 0 d | 0 b | 0 b | 0 b | 0 e |
| 2 | SureStart | 1.75 pt/a | pre | 98 a | 99 a | 99 a | 98 a | 98 a | 99 a |
| | Durango | 24 oz/a | mpost | | | | | | |
| | AMS | 2.5 lb/a | mpost | | | | | | |
| 3 | Keystone | 1.5 qt/a | pre | 96 a | 96 a | 96 a | 99 a | 96 a | 96 ab |
| | Durango | 24 oz/a | mpost | | | | | | |
| | AMS | 2.5 lb/a | mpost | | | | | | |
| 4 | SureStart | 1.75 pt/a | epost | 98 a | 99 a | 98 a | 99 a | 98 a | 99 a |
| | Durango | 24 oz/a | epost | | | | | | |
| | AMS | 2.5 lb/a | epost | | | | | | |
| 5 | BAS 756 | 2.5 pt/a | mpost | 95 a | 87 c | 93 a | 99 a | 91 a | 87 d |
| | NIS | 1 pt/100 gal | mpost | | | | | | |
| | AMS | 8.5 lb/100 gal | mpost | | | | | | |
| 6 | Roundup Weathermax | 22 oz/a | mpost | 95 a | 92 b | 99 a | 99 a | 93 a | 90 cd |
| | AMS | 8.5 lb/100 gal | mpost | | | | | | |
| | NIS | 0.25 % v/v | mpost | | | | | | |
| 7 | Permit | 0.67 oz/a | mpost | 98 a | 95 ab | 99 a | 99 a | 98 a | 95 abc |
| | Roundup Weathermax | 22 oz/a | mpost | | | | | | |
| | AMS | 2 lb/a | mpost | | | | | | |
| | NIS | 0.25 % v/v | mpost | | | | | | |
| 8 | Permit | 0.5 oz/a | mpost | 98 a | 92 b | 99 a | 99 a | 98 a | 92 bc |
| | Roundup Weathermax | 22 oz/a | mpost | | | | | | |
| | AMS | 2 lb/a | mpost | | | | | | |
| | NIS | 0.25 % v/v | mpost | | | | | | |
| 9 | Yukon | 4 oz/a | mpost | 96 a | 92 b | 99 a | 99 a | 96 a | 92 bc |
| | Roundup Weathermax | 22 oz/a | mpost | | | | | | |
| | AMS | 2 lb/a | mpost | | | | | | |
| | NIS | 0.25 % v/v | mpost | | | | | | |
| 10 | Yukon | 3 oz/a | mpost | 96 a | 95 ab | 99 a | 99 a | 96 a | 95 abc |
| | Roundup Weathermax | 22 oz/a | mpost | | | | | | |
| | AMS | 2 lb/a | mpost | | | | | | |
| | NIS | 0.25 % v/v | mpost | | | | | | |
| 11 | Halex | 4 pt/a | epost | 99 a | 99 a | 96 a | 99 a | 99 a | 99 a |
| | Aatrex | 1 pt/a | epost | | | | | | |
| | AMS | 8.5 lb/100 gal | epost | | | | | | |
| | NIS | 0.25 % v/v | epost | | | | | | |
| 12 | Bicep II Magnum | 2.1 pt/a | pre | 98 a | 99 a | 99 a | 99 a | 98 a | 99 a |
| | Halex | 4 pt/a | mpost | | | | | | |
| | AMS | 8.5 lb/100 gal | mpost | | | | | | |
| | NIS | 0.25 % v/v | mpost | | | | | | |
| LSD (P=.05) | | | | 4.4 | 3.0 | 4.0 | 1.1 | 5.8 | 3.6 |
| Standard Deviation | | | | 2.6 | 1.8 | 2.4 | 0.7 | 3.4 | 2.1 |
| CV | | | | 2.96 | 2.07 | 2.62 | 0.74 | 3.88 | 2.45 |
| Grand Mean | | | | 88.81 | 87.0 | 89.67 | 90.64 | 88.39 | 86.86 |
| Bartlett's X2 | | | | 3.141 | 0.136 | 1.763 | 0.0 | 9.635 | 1.436 |
| P(Bartlett's X2) | | | | 0.958 | 0.998 | 0.623 | . | 0.381 | 0.838 |
| Replicate F | | | | 1.079 | 0.953 | 1.219 | 1.000 | 1.303 | 1.200 |
| Replicate Prob(F) | | | | 0.3572 | 0.4009 | 0.3148 | 0.3840 | 0.2918 | 0.3200 |
| Treatment F | | | | 340.827 | 710.351 | 433.751 | 5500.563 | 198.432 | 505.877 |
| Treatment Prob(F) | | | | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

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

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| Weed Code | | | | SETVI ZEAMX CONTROL % | HELAN ZEAMX CONTROL % | ABUTH ZEAMX CONTROL % | AMAPA ZEAMX CONTROL % | SETVI ZEAMX CONTROL % | HELAN ZEAMX CONTROL % |
|--------------------|-----------------------------------|--|----------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Crop Code | | | | 3/Jul/2007 | 30/Jul/2007 | 30/Jul/2007 | 30/Jul/2007 | 30/Jul/2007 | 1/Oct/2007 |
| Rating Data Type | | | | | | | | | |
| Rating Unit | | | | | | | | | |
| Rating Date | | | | | | | | | |
| ARM Action Codes | | | | | | | | | |
| # Subsamples, Dec. | | | | | | | | | |
| Trt No. | Treatment Name | Rate | Grow Stg | 13 | 14 | 15 | 16 | 17 | 18 |
| 1 | Check | | | 0 b | 0 d | 0 e | 0 d | 0 c | 0 b |
| 2 | SureStart Durango AMS | 1.75 pt/a 24 oz/a 2.5 lb/a | pre mpost mpost | 99 a | 95 ab | 95 b | 95 a | 95 a | 95 a |
| 3 | Keystone Durango AMS | 1.5 qt/a 24 oz/a 2.5 lb/a | pre mpost mpost | 96 a | 95 ab | 95 b | 95 a | 92 ab | 93 a |
| 4 | SureStart Durango AMS | 1.75 pt/a 24 oz/a 2.5 lb/a | epost epost epost | 98 a | 93 abc | 90 c | 90 b | 90 b | 95 a |
| 5 | BAS 756 NIS AMS | 2.5 pt/a 1 pt/100 gal 8.5 lb/100 gal | mpost mpost mpost | 93 a | 88 c | 83 d | 90 b | 95 a | 90 a |
| 6 | Roundup Weathermax AMS NIS | 22 oz/a 8.5 lb/100 gal 0.25 % v/v | mpost mpost mpost | 99 a | 90 bc | 82 d | 90 b | 93 ab | 90 a |
| 7 | Permit Roundup Weathermax AMS NIS | 0.67 oz/a 22 oz/a 2 lb/a 0.25 % v/v | mpost mpost mpost mpost | 99 a | 90 bc | 95 b | 88 b | 93 ab | 92 a |
| 8 | Permit Roundup Weathermax AMS NIS | 0.5 oz/a 22 oz/a 2 lb/a 0.25 % v/v | mpost mpost mpost mpost | 99 a | 92 abc | 90 c | 92 b | 90 b | 90 a |
| 9 | Yukon Roundup Weathermax AMS NIS | 4 oz/a 22 oz/a 2 lb/a 0.25 % v/v | mpost mpost mpost mpost | 99 a | 93 abc | 95 b | 82 c | 95 a | 92 a |
| 10 | Yukon Roundup Weathermax AMS NIS | 3 oz/a 22 oz/a 2 lb/a 0.25 % v/v | mpost mpost mpost mpost | 99 a | 96 a | 95 b | 90 b | 92 ab | 95 a |
| 11 | Halex Aatrex AMS NIS | 4 pt/a 1 pt/a 8.5 lb/100 gal 0.25 % v/v | epost epost epost epost | 96 a | 90 bc | 99 a | 95 a | 90 b | 93 a |
| 12 | Bicep II Magnum Halex AMS NIS | 2.1 pt/a 4 pt/a 8.5 lb/100 gal 0.25 % v/v | pre mpost mpost mpost | 99 a | 93 abc | 99 a | 90 b | 95 a | 93 a |
| LSD (P=.05) | | | | 4.0 | 3.4 | 1.9 | 2.3 | 2.9 | 4.8 |
| Standard Deviation | | | | 2.4 | 2.0 | 1.2 | 1.4 | 1.7 | 2.9 |
| CV | | | | 2.62 | 2.37 | 1.36 | 1.63 | 1.98 | 3.37 |
| Grand Mean | | | | 89.67 | 84.69 | 84.83 | 83.06 | 85.0 | 84.75 |
| Bartlett's X2 | | | | 1.763 | 0.139 | 0.0 | 0.0 | 0.0 | 1.693 |
| P(Bartlett's X2) | | | | 0.623 | 1.00 | 1.00 | 1.00 | 1.00 | 0.975 |
| Replicate F | | | | 1.219 | 0.625 | 1.571 | 2.655 | 0.733 | 3.871 |
| Replicate Prob(F) | | | | 0.3148 | 0.5444 | 0.2302 | 0.0927 | 0.4917 | 0.0363 |
| Treatment F | | | | 433.751 | 532.324 | 1682.857 | 1142.759 | 761.067 | 263.110 |
| Treatment Prob(F) | | | | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

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

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| Weed Code | ABUTH ZEAMX CONTROL | AMAPA ZEAMX CONTROL | SETVI ZEAMX CONTROL | ZEAMX YIELD LB | ZEAMX MOICON % | ZEAMX YIELD bu/ac | | |
|----------------------|---------------------------|---------------------------|---------------------------|----------------------|----------------------|-------------------------|--------|---------|
| Crop Code | 1/Oct/2007 | 1/Oct/2007 | 1/Oct/2007 | 24/Oct/2007 | 24/Oct/2007 | 24/Oct/2007 | | |
| Rating Data Type | % | % | % | LB | % | bu/ac | | |
| Rating Unit | | | | | | | | |
| Rating Date | 1/Oct/2007 | 1/Oct/2007 | 1/Oct/2007 | 24/Oct/2007 | 24/Oct/2007 | 24/Oct/2007 | | |
| ARM Action Codes | | | | | | | | |
| # Subsamples, Dec. | | | | | | TY1 1 | | |
| Trt Treatment | Rate | Grow | | | | | | |
| No. Name | Rate Unit | Stg | 19 | 20 | 21 | 22 | 23 | 24 |
| 1 Check | | | 0 c | 0 e | 0 c | 3 b | 16 a | 8.7 b |
| 2 SureStart | 1.75 pt/a | pre | 96 ab | 95 b | 93 ab | 53 a | 16 a | 136.1 a |
| Durango | 24 oz/a | mpost | | | | | | |
| AMS | 2.5 lb/a | mpost | | | | | | |
| 3 Keystone | 1.5 qt/a | pre | 96 ab | 99 a | 93 ab | 47 a | 16 a | 120.4 a |
| Durango | 24 oz/a | mpost | | | | | | |
| AMS | 2.5 lb/a | mpost | | | | | | |
| 4 SureStart | 1.75 pt/a | epost | 95 ab | 95 b | 92 ab | 56 a | 16 a | 142.6 a |
| Durango | 24 oz/a | epost | | | | | | |
| AMS | 2.5 lb/a | epost | | | | | | |
| 5 BAS 756 | 2.5 pt/a | mpost | 92 b | 92 bc | 93 ab | 48 a | 16 a | 123.5 a |
| NIS | 1 pt/100 gal | mpost | | | | | | |
| AMS | 8.5 lb/100 gal | mpost | | | | | | |
| 6 Roundup Weathermax | 22 oz/a | mpost | 90 b | 90 c | 92 ab | 54 a | 16 a | 138.0 a |
| AMS | 8.5 lb/100 gal | mpost | | | | | | |
| NIS | 0.25 % v/v | mpost | | | | | | |
| 7 Permit | 0.67 oz/a | mpost | 96 ab | 92 bc | 90 ab | 55 a | 16 a | 139.6 a |
| Roundup Weathermax | 22 oz/a | mpost | | | | | | |
| AMS | 2 lb/a | mpost | | | | | | |
| NIS | 0.25 % v/v | mpost | | | | | | |
| 8 Permit | 0.5 oz/a | mpost | 93 ab | 90 c | 92 ab | 50 a | 16 a | 126.5 a |
| Roundup Weathermax | 22 oz/a | mpost | | | | | | |
| AMS | 2 lb/a | mpost | | | | | | |
| NIS | 0.25 % v/v | mpost | | | | | | |
| 9 Yukon | 4 oz/a | mpost | 95 ab | 88 c | 90 ab | 53 a | 16 a | 134.8 a |
| Roundup Weathermax | 22 oz/a | mpost | | | | | | |
| AMS | 2 lb/a | mpost | | | | | | |
| NIS | 0.25 % v/v | mpost | | | | | | |
| 10 Yukon | 3 oz/a | mpost | 96 ab | 85 d | 90 ab | 51 a | 16 a | 131.3 a |
| Roundup Weathermax | 22 oz/a | mpost | | | | | | |
| AMS | 2 lb/a | mpost | | | | | | |
| NIS | 0.25 % v/v | mpost | | | | | | |
| 11 Halex | 4 pt/a | epost | 96 ab | 95 b | 87 b | 50 a | 16 a | 128.6 a |
| Aatrex | 1 pt/a | epost | | | | | | |
| AMS | 8.5 lb/100 gal | epost | | | | | | |
| NIS | 0.25 % v/v | epost | | | | | | |
| 12 Bicep II Magnum | 2.1 pt/a | pre | 99 a | 92 bc | 95 a | 55 a | 16 a | 140.7 a |
| Halex | 4 pt/a | mpost | | | | | | |
| AMS | 8.5 lb/100 gal | mpost | | | | | | |
| NIS | 0.25 % v/v | mpost | | | | | | |
| LSD (P=.05) | | | 4.2 | 2.7 | 4.6 | 5.5 | 0.3 | 13.88 |
| Standard Deviation | | | 2.5 | 1.6 | 2.7 | 3.2 | 0.2 | 8.20 |
| CV | | | 2.84 | 1.91 | 3.23 | 6.75 | 1.16 | 6.69 |
| Grand Mean | | | 87.08 | 84.36 | 83.89 | 48.01 | 16.31 | 122.56 |
| Bartlett's X2 | | | 2.612 | 0.0 | 2.028 | 17.283 | 13.901 | 17.678 |
| P(Bartlett's X2) | | | 0.956 | 1.00 | 0.917 | 0.10 | 0.239 | 0.089 |
| Replicate F | | | 2.706 | 1.878 | 0.379 | 1.868 | 2.636 | 2.005 |
| Replicate Prob(F) | | | 0.0890 | 0.1766 | 0.6887 | 0.1781 | 0.0942 | 0.1585 |
| Treatment F | | | 370.988 | 833.502 | 287.862 | 58.502 | 0.418 | 59.666 |
| Treatment Prob(F) | | | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.9322 | 0.0001 |

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

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

Column 24: TY1 = 2.592857*[22]*(100-[23])/85