

## Fall Envoke for Marestalk Management.

Trial ID: 09-YRC-SYN-Fall      Location: Young Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu  
 City State Zip Country:      Murphysboro      IL 62966      USA  
 Trial Status: FINAL      Initiation Date:      11-18-08

Objectives: Compare the efficacy and utility of fall applications of Envoke compared with competitive standards for control of glyphosate-resistant marestalk in soybean.

|                          |                         |                     |
|--------------------------|-------------------------|---------------------|
| Crop 1: GLXMA Soybean    | Variety: AG 4404        | Description: RR/STS |
| Planting Method: SEED    | Planting Date: 05-19-09 |                     |
| Rate, Unit: 75 LB/A      | Depth, Unit: 1.0 IN     |                     |
| Row Spacing, Unit: 30 IN |                         |                     |

|                   |             |                                |                   |
|-------------------|-------------|--------------------------------|-------------------|
| Pest 1 Type: W    | Code: ERICA | Conyza canadensis (L.) Crong.  | horseweed         |
| Pest Description: |             | glyphosate-resistant marestalk |                   |
| Pest 2 Type: W    | Code: LAMAM | Lamium amplexicaule L.         | henbit            |
| Pest 3 Type: D    | Code: AMATA | Amaranthus rudis Sauer         | waterhemp, common |
| Pest 4 Type: W    | Code: AMBEL | Ambrosia artemisiifolia L.     | ragweed, common   |

|                          |                                         |
|--------------------------|-----------------------------------------|
| Plot Width, Unit: 10 FT  | Site Type: FIELD                        |
| Plot Length, Unit: 30 FT | Tillage Type: NO-TILL                   |
| Replications: 4          | Study Design: Randomized Complete Block |

Prior Crops, Year  
 1. ZEAMD 2008

Field Prep./Maintenance: N 0 LB/A, P205 0 LB/A, K20 0 LB/A

|           |                                      |
|-----------|--------------------------------------|
| % OM: 2.1 | Texture: VERY FINE SANDY LOAM        |
| pH: 5     | Soil Name: ALVIN                     |
| CEC: 9    | Fert. Level: P1 133 LB/A, K 209 LB/A |

## Application Description

A

|                         |          |
|-------------------------|----------|
| Application Date:       | 11-18-08 |
| Time of Day:            | 16:00    |
| Application Method:     | Spray    |
| Application Timing:     | FALL     |
| Application Placement:  | BROFOL   |
| Applied By:             | TGM      |
| Air Temperature, Unit:  | 37 F     |
| % Relative Humidity:    | 40       |
| Wind Velocity, Unit:    | 1 MPH    |
| Wind Direction:         | W        |
| Dew Presence (Y/N):     | N        |
| Soil Temperature, Unit: | 39 F     |
| Soil Moisture:          | NORMAL   |
| % Cloud Cover:          | 10       |

|                            |          |
|----------------------------|----------|
|                            | 11-18-08 |
| Crop stage at application: | NA       |

## Pest Stage At Each Application

|                          |          |
|--------------------------|----------|
| Application Date:        | 11-18-08 |
| Weed Code:               | ERICA    |
| Stage Majority (leaves): | 2        |
| Stage Min, Max:          | COTY 2   |
| Height Majority:         | 0.25 IN  |
| Height Min, Max:         | 0.25 0.5 |
| Density, Unit:           | 0.1 FT2  |
| Weed Code:               | LAMAM    |
| Stage Majority (leaves): | NA       |
| Weed Code:               | AMATA    |
| Stage Majority (leaves): | NA       |
| Weed Code:               | AMBEL    |
| Stage Majority (leaves): | NA       |

## Application Equipment

|                     |             |
|---------------------|-------------|
| Appl. Equipment:    | CO2 sprayer |
| Operating Pressure: | 30 PSI      |
| Nozzle Type:        | Flat fan    |
| Nozzle Size:        | XR 8002     |
| Boom Length, Unit:  | 6.67 FT     |
| Spray Volume, Unit: | 15 GPA      |

## Fall Envoke for Marestail Management.

Trial ID: 09-YRC-SYN-Fall      Location: Young Res. Center

| Pest Code         |                 |           |           |         |           |            |                 |              |           | GLXMA    | GLXMA    | GLXMA    | GLXMA    | GLXMA    | GLXMA    |
|-------------------|-----------------|-----------|-----------|---------|-----------|------------|-----------------|--------------|-----------|----------|----------|----------|----------|----------|----------|
| Crop Code         |                 |           |           |         |           |            |                 |              |           | 11-06-09 | 11-06-09 | 06-06-09 | 06-20-09 | 07-04-09 | 07-25-09 |
| Rating Date       |                 |           |           |         |           |            |                 |              |           | Moisture | Yield    | Injury   | Injury   | Injury   | Injury   |
| Rating Data Type  |                 |           |           |         |           |            |                 |              |           | Percent  | bu/A     | Percent  | Percent  | Percent  | Percent  |
| Rating Unit       |                 |           |           |         |           |            |                 |              |           |          |          |          |          |          |          |
| Rating Timing     |                 |           |           |         |           |            |                 |              |           |          |          |          |          |          |          |
| Trt-Eval Interval |                 |           |           |         |           |            |                 |              |           |          |          | 14 DAE   | 28 DAE   | 42 DAE   | 63 DAE   |
| Trt No.           | Treatment Name  | Form Conc | Form Type | Rate    | Rate Unit | Other Rate | Other Rate Unit | Growth Stage | Appl Code |          |          |          |          |          |          |
| 1                 | NONTREATED      |           |           |         |           |            |                 |              |           | 10.9 bc  | 50 ab    | 0 a      | 0 a      | 0 a      | 0 a      |
| 2                 | N-PAK AMS       | 100 SL    |           | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 11.0 bc  | 48 ab    | 0 a      | 0 a      | 0 a      | 0 a      |
| 2                 | 2,4-D LV 4      | 3.8 EC    |           | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 2                 | TOUCHDOWN TOTAL | 4.17 SL   |           | 0.78    | lb ae/a   | 24         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 3                 | N-PAK AMS       | 100 SL    |           | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 10.9 bc  | 47 ab    | 0 a      | 0 a      | 0 a      | 0 a      |
| 3                 | ENVOKE          | 75 WG     |           | 0.0047  | lb ai/a   | 0.1        | oz/a            | FALL         | A         |          |          |          |          |          |          |
| 3                 | 2,4-D LV 4      | 3.8 EC    |           | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 3                 | TOUCHDOWN TOTAL | 4.17 SL   |           | 0.78    | lb ae/a   | 24         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 4                 | ENVOKE          | 75 WG     |           | 0.0047  | lb ai/a   | 0.1        | oz/a            | FALL         | A         | 10.9 bc  | 53 ab    | 0 a      | 0 a      | 0 a      | 0 a      |
| 4                 | 2,4-D LV 4      | 3.8 EC    |           | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 4                 | PRIME OIL COC   | 100 SL    |           | 1       | % v/v     | 1          | % v/v           | FALL         | A         |          |          |          |          |          |          |
| 5                 | N-PAK AMS       | 100 SL    |           | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 11.0 bc  | 47 ab    | 0 a      | 0 a      | 0 a      | 0 a      |
| 5                 | ENVOKE          | 75 WG     |           | 0.00586 | lb ai/a   | 0.125      | oz/a            | FALL         | A         |          |          |          |          |          |          |
| 5                 | 2,4-D LV 4      | 3.8 EC    |           | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 5                 | TOUCHDOWN TOTAL | 4.17 SL   |           | 0.78    | lb ae/a   | 24         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 6                 | ENVOKE          | 75 WG     |           | 0.00586 | lb ai/a   | 0.125      | oz/a            | FALL         | A         | 11.0 bc  | 46 b     | 0 a      | 0 a      | 0 a      | 0 a      |
| 6                 | 2,4-D LV 4      | 3.8 EC    |           | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 6                 | PRIME OIL COC   | 100 SL    |           | 1       | % v/v     | 1          | % v/v           | FALL         | A         |          |          |          |          |          |          |
| 7                 | N-PAK AMS       | 100 SL    |           | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 10.8 bc  | 48 ab    | 0 a      | 0 a      | 0 a      | 0 a      |
| 7                 | ENVOKE          | 75 WG     |           | 0.007   | lb ai/a   | 0.15       | oz/a            | FALL         | A         |          |          |          |          |          |          |
| 7                 | 2,4-D LV 4      | 3.8 EC    |           | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 7                 | TOUCHDOWN TOTAL | 4.17 SL   |           | 0.78    | lb ae/a   | 24         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 8                 | ENVOKE          | 75 WG     |           | 0.007   | lb ai/a   | 0.15       | oz/a            | FALL         | A         | 11.0 bc  | 55 ab    | 0 a      | 0 a      | 0 a      | 0 a      |
| 8                 | 2,4-D LV 4      | 3.8 EC    |           | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 8                 | PRIME OIL COC   | 100 SL    |           | 1       | % v/v     | 1          | % v/v           | FALL         | A         |          |          |          |          |          |          |
| 9                 | N-PAK AMS       | 100 SL    |           | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 10.9 bc  | 47 ab    | 0 a      | 0 a      | 0 a      | 0 a      |
| 9                 | ENVOKE          | 75 WG     |           | 0.014   | lb ai/a   | 0.3        | oz/a            | FALL         | A         |          |          |          |          |          |          |
| 9                 | 2,4-D LV 4      | 3.8 EC    |           | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 9                 | TOUCHDOWN TOTAL | 4.17 SL   |           | 0.52    | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 10                | ENVOKE          | 75 WG     |           | 0.014   | lb ai/a   | 0.3        | oz/a            | FALL         | A         | 10.8 bc  | 51 ab    | 0 a      | 0 a      | 0 a      | 0 a      |
| 10                | 2,4-D LV 4      | 3.8 EC    |           | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 10                | PRIME OIL COC   | 100 SL    |           | 1       | % v/v     | 1          | % v/v           | FALL         | A         |          |          |          |          |          |          |
| 11                | N-PAK AMS       | 100 SL    |           | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 11.2 ab  | 55 a     | 0 a      | 0 a      | 0 a      | 0 a      |
| 11                | CLASSIC         | 25 WG     |           | 0.0156  | lb ai/a   | 1          | oz/a            | FALL         | A         |          |          |          |          |          |          |
| 11                | EXPRESS         | 50 SG     |           | 0.00313 | lb ai/a   | 0.1        | oz/a            | FALL         | A         |          |          |          |          |          |          |
| 11                | 2,4-D LV 4      | 3.8 EC    |           | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 11                | TOUCHDOWN TOTAL | 4.17 SL   |           | 0.52    | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 12                | CLASSIC         | 25 WG     |           | 0.0156  | lb ai/a   | 1          | oz/a            | FALL         | A         | 10.7 c   | 51 ab    | 0 a      | 0 a      | 0 a      | 0 a      |
| 12                | EXPRESS         | 50 SG     |           | 0.00313 | lb ai/a   | 0.1        | oz/a            | FALL         | A         |          |          |          |          |          |          |
| 12                | 2,4-D LV 4      | 3.8 EC    |           | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 12                | PRIME OIL COC   | 100 SL    |           | 1       | % v/v     | 1          | % v/v           | FALL         | A         |          |          |          |          |          |          |
| 13                | N-PAK AMS       | 100 SL    |           | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 11.6 a   | 46 b     | 0 a      | 0 a      | 0 a      | 0 a      |
| 13                | VALOR SX        | 51 WG     |           | 0.064   | lb ai/a   | 2          | oz/a            | FALL         | A         |          |          |          |          |          |          |
| 13                | 2,4-D LV 4      | 3.8 EC    |           | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 13                | TOUCHDOWN TOTAL | 4.17 SL   |           | 0.52    | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 14                | VALOR SX        | 51 WG     |           | 0.064   | lb ai/a   | 2          | oz/a            | FALL         | A         | 11.1 bc  | 47 ab    | 0 a      | 0 a      | 0 a      | 0 a      |
| 14                | 2,4-D LV 4      | 3.8 EC    |           | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |          |          |
| 14                | PRIME OIL COC   | 100 SL    |           | 1       | % v/v     | 1          | % v/v           | FALL         | A         |          |          |          |          |          |          |
| LSD (P=.05)       |                 |           |           |         |           |            |                 |              |           | 0.40     | 9.2      | 0.0      | 0.0      | 0.0      | 0.0      |
| Replicate F       |                 |           |           |         |           |            |                 |              |           | 2.578    | 2.853    | 0.000    | 0.000    | 0.000    | 0.000    |
| Replicate Prob(F) |                 |           |           |         |           |            |                 |              |           | 0.0675   | 0.0496   | 1.0000   | 1.0000   | 1.0000   | 1.0000   |
| Treatment F       |                 |           |           |         |           |            |                 |              |           | 2.084    | 0.944    | 0.000    | 0.000    | 0.000    | 0.000    |
| Treatment Prob(F) |                 |           |           |         |           |            |                 |              |           | 0.0386   | 0.5200   | 1.0000   | 1.0000   | 1.0000   | 1.0000   |

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

|                   |          |          |          |          |
|-------------------|----------|----------|----------|----------|
| Pest Code         |          |          |          |          |
| Crop Code         |          |          |          |          |
| Rating Date       | GLXMA    | GLXMA    | GLXMA    | GLXMA    |
| Rating Data Type  | 06-06-09 | 06-20-09 | 07-04-09 | 07-25-09 |
| Rating Unit       | Stunt    | Stunt    | Stunt    | Stunt    |
| Rating Timing     | Percent  | Percent  | Percent  | Percent  |
| Trt-Eval Interval | 14 DAE   | 28 DAE   | 42 DAE   | 63 DAE   |

| Trt No. | Treatment Name  | Form Conc | Form Type | Rate    | Rate Unit | Other Rate | Other Rate Unit | Growth Stage | Appl Code | 11-27-12 | 12-01-12 | 12-04-12 | 12-07-12 |
|---------|-----------------|-----------|-----------|---------|-----------|------------|-----------------|--------------|-----------|----------|----------|----------|----------|
| 1       | NONTREATED      |           |           |         |           |            |                 |              |           | 0 a      | 0 a      | 0 a      | 0 a      |
| 2       | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 0 a      | 0 a      | 0 a      | 0 a      |
| 2       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |
| 2       | TOUCHDOWN TOTAL | 4.17      | SL        | 0.78    | lb ae/a   | 24         | fl oz/a         | FALL         | A         |          |          |          |          |
| 3       | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 0 a      | 0 a      | 0 a      | 0 a      |
| 3       | ENVOKE          | 75        | WG        | 0.0047  | lb ai/a   | 0.1        | oz/a            | FALL         | A         |          |          |          |          |
| 3       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |
| 3       | TOUCHDOWN TOTAL | 4.17      | SL        | 0.78    | lb ae/a   | 24         | fl oz/a         | FALL         | A         |          |          |          |          |
| 4       | ENVOKE          | 75        | WG        | 0.0047  | lb ai/a   | 0.1        | oz/a            | FALL         | A         | 0 a      | 0 a      | 0 a      | 0 a      |
| 4       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |
| 4       | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |          |          |          |          |
| 5       | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 0 a      | 0 a      | 0 a      | 0 a      |
| 5       | ENVOKE          | 75        | WG        | 0.00586 | lb ai/a   | 0.125      | oz/a            | FALL         | A         |          |          |          |          |
| 5       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |
| 5       | TOUCHDOWN TOTAL | 4.17      | SL        | 0.78    | lb ae/a   | 24         | fl oz/a         | FALL         | A         |          |          |          |          |
| 6       | ENVOKE          | 75        | WG        | 0.00586 | lb ai/a   | 0.125      | oz/a            | FALL         | A         | 0 a      | 0 a      | 0 a      | 0 a      |
| 6       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |
| 6       | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |          |          |          |          |
| 7       | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 0 a      | 0 a      | 0 a      | 0 a      |
| 7       | ENVOKE          | 75        | WG        | 0.007   | lb ai/a   | 0.15       | oz/a            | FALL         | A         |          |          |          |          |
| 7       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |
| 7       | TOUCHDOWN TOTAL | 4.17      | SL        | 0.78    | lb ae/a   | 24         | fl oz/a         | FALL         | A         |          |          |          |          |
| 8       | ENVOKE          | 75        | WG        | 0.007   | lb ai/a   | 0.15       | oz/a            | FALL         | A         | 0 a      | 0 a      | 0 a      | 0 a      |
| 8       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |
| 8       | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |          |          |          |          |
| 9       | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 0 a      | 0 a      | 0 a      | 0 a      |
| 9       | ENVOKE          | 75        | WG        | 0.014   | lb ai/a   | 0.3        | oz/a            | FALL         | A         |          |          |          |          |
| 9       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |
| 9       | TOUCHDOWN TOTAL | 4.17      | SL        | 0.52    | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |
| 10      | ENVOKE          | 75        | WG        | 0.014   | lb ai/a   | 0.3        | oz/a            | FALL         | A         | 0 a      | 0 a      | 0 a      | 0 a      |
| 10      | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |
| 10      | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |          |          |          |          |
| 11      | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 0 a      | 0 a      | 0 a      | 0 a      |
| 11      | CLASSIC         | 25        | WG        | 0.0156  | lb ai/a   | 1          | oz/a            | FALL         | A         |          |          |          |          |
| 11      | EXPRESS         | 50        | SG        | 0.00313 | lb ai/a   | 0.1        | oz/a            | FALL         | A         |          |          |          |          |
| 11      | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |
| 11      | TOUCHDOWN TOTAL | 4.17      | SL        | 0.52    | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |
| 12      | CLASSIC         | 25        | WG        | 0.0156  | lb ai/a   | 1          | oz/a            | FALL         | A         | 0 a      | 0 a      | 0 a      | 0 a      |
| 12      | EXPRESS         | 50        | SG        | 0.00313 | lb ai/a   | 0.1        | oz/a            | FALL         | A         |          |          |          |          |
| 12      | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |
| 12      | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |          |          |          |          |
| 13      | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 0 a      | 0 a      | 0 a      | 0 a      |
| 13      | VALOR SX        | 51        | WG        | 0.064   | lb ai/a   | 2          | oz/a            | FALL         | A         |          |          |          |          |
| 13      | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |
| 13      | TOUCHDOWN TOTAL | 4.17      | SL        | 0.52    | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |
| 14      | VALOR SX        | 51        | WG        | 0.064   | lb ai/a   | 2          | oz/a            | FALL         | A         | 0 a      | 0 a      | 0 a      | 0 a      |
| 14      | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |          |          |          |          |
| 14      | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |          |          |          |          |

|                   |        |        |        |        |
|-------------------|--------|--------|--------|--------|
| Replicate F       | 0.000  | 0.000  | 0.000  | 0.000  |
| Replicate Prob(F) | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Treatment F       | 0.000  | 0.000  | 0.000  | 0.000  |
| Treatment Prob(F) | 1.0000 | 1.0000 | 1.0000 | 1.0000 |

621

## Fall Envoke for Marestail Management.

Trial ID: 09-YRC-SYN-Fall      Location: Young Res. Center

|                   |  |          |           |          |          |          |          |
|-------------------|--|----------|-----------|----------|----------|----------|----------|
| Pest Code         |  | ERICA-HR | ERICA-HR  | ERICA-HR | ERICA-HR | ERICA-HR | ERICA-HR |
| Crop Code         |  |          |           |          |          |          |          |
| Rating Date       |  | 12-14-08 | 04-01-09  | 05-20-09 | 07-01-09 | 08-04-09 | 10-21-09 |
| Rating Data Type  |  | Control  | Control   | Control  | Control  | Control  | Control  |
| Rating Unit       |  | Percent  | Percent   | Percent  | Percent  | Percent  | Percent  |
| Rating Timing     |  |          | At Spring |          |          |          |          |
| Trt-Eval Interval |  | 26 DA-A  | Greenup   | 1 DAP    | 0 DA-C   | 35 DA-C  | EOS      |

| Trt No. | Treatment Name  | Form Conc | Form Type | Rate    | Rate Unit | Other Rate | Other Rate Unit | Growth Stage | Appl Code |   |      |       |      |      |      |
|---------|-----------------|-----------|-----------|---------|-----------|------------|-----------------|--------------|-----------|---|------|-------|------|------|------|
| 1       | NONTREATED      |           |           |         |           |            |                 |              |           | 0 | 0 c  | 0 d   | 85 b | 99 a | 99 a |
| 2       | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         |   | 74 b | 54 c  | 84 b | 99 a | 99 a |
| 2       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 2       | TOUCHDOWN TOTAL | 4.17      | SL        | 0.78    | lb ae/a   | 24         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 3       | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         |   | 99 a | 98 a  | 97 a | 99 a | 99 a |
| 3       | ENVOKE          | 75        | WG        | 0.0047  | lb ai/a   | 0.1        | oz/a            | FALL         | A         |   |      |       |      |      |      |
| 3       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 3       | TOUCHDOWN TOTAL | 4.17      | SL        | 0.78    | lb ae/a   | 24         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 4       | ENVOKE          | 75        | WG        | 0.0047  | lb ai/a   | 0.1        | oz/a            | FALL         | A         |   | 99 a | 97 ab | 97 a | 99 a | 99 a |
| 4       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 4       | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |   |      |       |      |      |      |
| 5       | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         |   | 99 a | 92 ab | 94 a | 99 a | 99 a |
| 5       | ENVOKE          | 75        | WG        | 0.00586 | lb ai/a   | 0.125      | oz/a            | FALL         | A         |   |      |       |      |      |      |
| 5       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 5       | TOUCHDOWN TOTAL | 4.17      | SL        | 0.78    | lb ae/a   | 24         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 6       | ENVOKE          | 75        | WG        | 0.00586 | lb ai/a   | 0.125      | oz/a            | FALL         | A         |   | 99 a | 95 ab | 94 a | 99 a | 99 a |
| 6       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 6       | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |   |      |       |      |      |      |
| 7       | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         |   | 99 a | 98 a  | 96 a | 99 a | 99 a |
| 7       | ENVOKE          | 75        | WG        | 0.007   | lb ai/a   | 0.15       | oz/a            | FALL         | A         |   |      |       |      |      |      |
| 7       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 7       | TOUCHDOWN TOTAL | 4.17      | SL        | 0.78    | lb ae/a   | 24         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 8       | ENVOKE          | 75        | WG        | 0.007   | lb ai/a   | 0.15       | oz/a            | FALL         | A         |   | 99 a | 99 a  | 97 a | 99 a | 99 a |
| 8       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 8       | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |   |      |       |      |      |      |
| 9       | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         |   | 99 a | 99 a  | 98 a | 99 a | 99 a |
| 9       | ENVOKE          | 75        | WG        | 0.014   | lb ai/a   | 0.3        | oz/a            | FALL         | A         |   |      |       |      |      |      |
| 9       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 9       | TOUCHDOWN TOTAL | 4.17      | SL        | 0.52    | lb ae/a   | 16         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 10      | ENVOKE          | 75        | WG        | 0.014   | lb ai/a   | 0.3        | oz/a            | FALL         | A         |   | 99 a | 99 a  | 97 a | 99 a | 99 a |
| 10      | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 10      | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |   |      |       |      |      |      |
| 11      | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         |   | 99 a | 97 ab | 98 a | 99 a | 99 a |
| 11      | CLASSIC         | 25        | WG        | 0.0156  | lb ai/a   | 1          | oz/a            | FALL         | A         |   |      |       |      |      |      |
| 11      | EXPRESS         | 50        | SG        | 0.00313 | lb ai/a   | 0.1        | oz/a            | FALL         | A         |   |      |       |      |      |      |
| 11      | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 11      | TOUCHDOWN TOTAL | 4.17      | SL        | 0.52    | lb ae/a   | 16         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 12      | CLASSIC         | 25        | WG        | 0.0156  | lb ai/a   | 1          | oz/a            | FALL         | A         |   | 99 a | 99 a  | 98 a | 99 a | 99 a |
| 12      | EXPRESS         | 50        | SG        | 0.00313 | lb ai/a   | 0.1        | oz/a            | FALL         | A         |   |      |       |      |      |      |
| 12      | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 12      | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |   |      |       |      |      |      |
| 13      | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         |   | 99 a | 87 b  | 93 a | 99 a | 99 a |
| 13      | VALOR SX        | 51        | WG        | 0.064   | lb ai/a   | 2          | oz/a            | FALL         | A         |   |      |       |      |      |      |
| 13      | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 13      | TOUCHDOWN TOTAL | 4.17      | SL        | 0.52    | lb ae/a   | 16         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 14      | VALOR SX        | 51        | WG        | 0.064   | lb ai/a   | 2          | oz/a            | FALL         | A         |   | 99 a | 90 ab | 96 a | 99 a | 99 a |
| 14      | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |   |      |       |      |      |      |
| 14      | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |   |      |       |      |      |      |

LSD (P=.05)

|                   |  |        |        |        |        |        |
|-------------------|--|--------|--------|--------|--------|--------|
| Replicate F       |  | 1.000  | 2.082  | 3.974  | 3.545  | 0.000  |
| Replicate Prob(F) |  | 0.4031 | 0.1184 | 0.0145 | 0.0231 | 1.0000 |
| Treatment F       |  | 16.385 | 56.127 | 2.452  | 1.000  | 0.000  |
| Treatment Prob(F) |  | 0.0001 | 0.0001 | 0.0154 | 0.4697 | 1.0000 |

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

## Fall Envoke for Maretail Management.

Trial ID: 09-YRC-SYN-Fall      Location: Young Res. Center

|                   |                 |      |      |         |         |       |         |        | LAMAM                | LAMAM    | AMASS    | AMATA    | AMASS    | AMASS    |      |
|-------------------|-----------------|------|------|---------|---------|-------|---------|--------|----------------------|----------|----------|----------|----------|----------|------|
| Pest Code         |                 |      |      |         |         |       |         |        | 12-14-08             | 04-01-09 | 10-21-09 | 05-20-09 | 07-01-09 | 08-04-09 |      |
| Crop Code         |                 |      |      |         |         |       |         |        | Control              | Control  | Control  | Control  | Control  | Control  |      |
| Rating Date       |                 |      |      |         |         |       |         |        | Percent              | Percent  | Percent  | Percent  | Percent  | Percent  |      |
| Rating Data Type  |                 |      |      |         |         |       |         |        | At Spring<br>Greenup |          |          |          |          |          |      |
| Rating Unit       |                 |      |      |         |         |       |         |        |                      |          |          |          |          |          |      |
| Rating Timing     |                 |      |      |         |         |       |         |        |                      |          |          |          |          |          |      |
| Trt-Eval Interval |                 |      |      |         |         |       |         |        | 26 DA-A              | EOS      | 1 DAP    | 0 DA-C   | 35 DA-C  |          |      |
| Trt               | Treatment       | Form | Form | Rate    | Rate    | Other | Other   | Growth | Appl                 |          |          |          |          |          |      |
| No.               | Name            | Conc | Type | Unit    | Unit    | Rate  | Rate    | Stage  | Code                 |          |          |          |          |          |      |
| 1                 | NONTREATED      |      |      |         |         |       |         |        |                      | 0 b      | 0 b      | 99 a     | 0 e      | 91 b     | 99 a |
| 2                 | N-PAK AMS       | 100  | SL   | 3.33    | % v/v   | 3.33  | % v/v   | FALL   | A                    | 99 a     | 99 a     | 99 a     | 0 e      | 98 a     | 99 a |
| 2                 | 2,4-D LV 4      | 3.8  | EC   | 0.475   | lb ae/a | 16    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 2                 | TOUCHDOWN TOTAL | 4.17 | SL   | 0.78    | lb ae/a | 24    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 3                 | N-PAK AMS       | 100  | SL   | 3.33    | % v/v   | 3.33  | % v/v   | FALL   | A                    | 99 a     | 99 a     | 99 a     | 53 bc    | 99 a     | 99 a |
| 3                 | ENVOKE          | 75   | WG   | 0.0047  | lb ai/a | 0.1   | oz/a    | FALL   | A                    |          |          |          |          |          |      |
| 3                 | 2,4-D LV 4      | 3.8  | EC   | 0.475   | lb ae/a | 16    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 3                 | TOUCHDOWN TOTAL | 4.17 | SL   | 0.78    | lb ae/a | 24    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 4                 | ENVOKE          | 75   | WG   | 0.0047  | lb ai/a | 0.1   | oz/a    | FALL   | A                    | 99 a     | 99 a     | 99 a     | 20 de    | 99 a     | 99 a |
| 4                 | 2,4-D LV 4      | 3.8  | EC   | 0.475   | lb ae/a | 16    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 4                 | PRIME OIL COC   | 100  | SL   | 1       | % v/v   | 1     | % v/v   | FALL   | A                    |          |          |          |          |          |      |
| 5                 | N-PAK AMS       | 100  | SL   | 3.33    | % v/v   | 3.33  | % v/v   | FALL   | A                    | 99 a     | 99 a     | 99 a     | 40 cd    | 98 a     | 99 a |
| 5                 | ENVOKE          | 75   | WG   | 0.00586 | lb ai/a | 0.125 | oz/a    | FALL   | A                    |          |          |          |          |          |      |
| 5                 | 2,4-D LV 4      | 3.8  | EC   | 0.475   | lb ae/a | 16    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 5                 | TOUCHDOWN TOTAL | 4.17 | SL   | 0.78    | lb ae/a | 24    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 6                 | ENVOKE          | 75   | WG   | 0.00586 | lb ai/a | 0.125 | oz/a    | FALL   | A                    | 99 a     | 99 a     | 99 a     | 0 e      | 97 ab    | 99 a |
| 6                 | 2,4-D LV 4      | 3.8  | EC   | 0.475   | lb ae/a | 16    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 6                 | PRIME OIL COC   | 100  | SL   | 1       | % v/v   | 1     | % v/v   | FALL   | A                    |          |          |          |          |          |      |
| 7                 | N-PAK AMS       | 100  | SL   | 3.33    | % v/v   | 3.33  | % v/v   | FALL   | A                    | 99 a     | 99 a     | 99 a     | 48 c     | 99 a     | 99 a |
| 7                 | ENVOKE          | 75   | WG   | 0.007   | lb ai/a | 0.15  | oz/a    | FALL   | A                    |          |          |          |          |          |      |
| 7                 | 2,4-D LV 4      | 3.8  | EC   | 0.475   | lb ae/a | 16    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 7                 | TOUCHDOWN TOTAL | 4.17 | SL   | 0.78    | lb ae/a | 24    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 8                 | ENVOKE          | 75   | WG   | 0.007   | lb ai/a | 0.15  | oz/a    | FALL   | A                    | 99 a     | 99 a     | 99 a     | 78 ab    | 98 a     | 99 a |
| 8                 | 2,4-D LV 4      | 3.8  | EC   | 0.475   | lb ae/a | 16    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 8                 | PRIME OIL COC   | 100  | SL   | 1       | % v/v   | 1     | % v/v   | FALL   | A                    |          |          |          |          |          |      |
| 9                 | N-PAK AMS       | 100  | SL   | 3.33    | % v/v   | 3.33  | % v/v   | FALL   | A                    | 99 a     | 99 a     | 99 a     | 80 ab    | 98 a     | 99 a |
| 9                 | ENVOKE          | 75   | WG   | 0.014   | lb ai/a | 0.3   | oz/a    | FALL   | A                    |          |          |          |          |          |      |
| 9                 | 2,4-D LV 4      | 3.8  | EC   | 0.475   | lb ae/a | 16    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 9                 | TOUCHDOWN TOTAL | 4.17 | SL   | 0.52    | lb ae/a | 16    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 10                | ENVOKE          | 75   | WG   | 0.014   | lb ai/a | 0.3   | oz/a    | FALL   | A                    | 99 a     | 99 a     | 99 a     | 86 a     | 99 a     | 99 a |
| 10                | 2,4-D LV 4      | 3.8  | EC   | 0.475   | lb ae/a | 16    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 10                | PRIME OIL COC   | 100  | SL   | 1       | % v/v   | 1     | % v/v   | FALL   | A                    |          |          |          |          |          |      |
| 11                | N-PAK AMS       | 100  | SL   | 3.33    | % v/v   | 3.33  | % v/v   | FALL   | A                    | 99 a     | 99 a     | 99 a     | 0 e      | 99 a     | 99 a |
| 11                | CLASSIC         | 25   | WG   | 0.0156  | lb ai/a | 1     | oz/a    | FALL   | A                    |          |          |          |          |          |      |
| 11                | EXPRESS         | 50   | SG   | 0.00313 | lb ai/a | 0.1   | oz/a    | FALL   | A                    |          |          |          |          |          |      |
| 11                | 2,4-D LV 4      | 3.8  | EC   | 0.475   | lb ae/a | 16    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 11                | TOUCHDOWN TOTAL | 4.17 | SL   | 0.52    | lb ae/a | 16    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 12                | CLASSIC         | 25   | WG   | 0.0156  | lb ai/a | 1     | oz/a    | FALL   | A                    | 99 a     | 99 a     | 99 a     | 15 de    | 99 a     | 99 a |
| 12                | EXPRESS         | 50   | SG   | 0.00313 | lb ai/a | 0.1   | oz/a    | FALL   | A                    |          |          |          |          |          |      |
| 12                | 2,4-D LV 4      | 3.8  | EC   | 0.475   | lb ae/a | 16    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 12                | PRIME OIL COC   | 100  | SL   | 1       | % v/v   | 1     | % v/v   | FALL   | A                    |          |          |          |          |          |      |
| 13                | N-PAK AMS       | 100  | SL   | 3.33    | % v/v   | 3.33  | % v/v   | FALL   | A                    | 99 a     | 99 a     | 99 a     | 97 a     | 96 ab    | 99 b |
| 13                | VALOR SX        | 51   | WG   | 0.064   | lb ai/a | 2     | oz/a    | FALL   | A                    |          |          |          |          |          |      |
| 13                | 2,4-D LV 4      | 3.8  | EC   | 0.475   | lb ae/a | 16    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 13                | TOUCHDOWN TOTAL | 4.17 | SL   | 0.52    | lb ae/a | 16    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 14                | VALOR SX        | 51   | WG   | 0.064   | lb ai/a | 2     | oz/a    | FALL   | A                    | 99 a     | 99 a     | 99 a     | 93 a     | 99 a     | 99 a |
| 14                | 2,4-D LV 4      | 3.8  | EC   | 0.475   | lb ae/a | 16    | fl oz/a | FALL   | A                    |          |          |          |          |          |      |
| 14                | PRIME OIL COC   | 100  | SL   | 1       | % v/v   | 1     | % v/v   | FALL   | A                    |          |          |          |          |          |      |
| LSD (P=.05)       |                 |      |      |         |         |       |         |        | 0.0                  | 0.0      | 0.0      | 27.3     | 5.8      | 0.4      |      |
| Replicate F       |                 |      |      |         |         |       |         |        | 0.000                | 0.000    | 0.000    | 1.295    | 1.293    | 1.000    |      |
| Replicate Prob(F) |                 |      |      |         |         |       |         |        | 1.0000               | 1.0000   | 1.0000   | 0.2909   | 0.2904   | 0.4031   |      |
| Treatment F       |                 |      |      |         |         |       |         |        | 0.000                | 0.000    | 0.000    | 15.731   | 1.007    | 1.000    |      |
| Treatment Prob(F) |                 |      |      |         |         |       |         |        | 1.0000               | 1.0000   | 1.0000   | 0.0001   | 0.4635   | 0.4697   |      |

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

## Fall Envoke for Maretail Management.

Trial ID: 09-YRC-SYN-Fall      Location: Young Res. Center

|                   |          |          |          |          |
|-------------------|----------|----------|----------|----------|
| Pest Code         | AMBEL    | AMBEL    | AMBEL    | AMBEL    |
| Crop Code         |          |          |          |          |
| Rating Date       | 05-20-09 | 07-01-09 | 08-04-09 | 10-21-09 |
| Rating Data Type  | Control  | Control  | Control  | Control  |
| Rating Unit       | Percent  | Percent  | Percent  | Percent  |
| Rating Timing     |          |          |          |          |
| Trt-Eval Interval | 1 DAP    | 0 DA-C   | 35 DA-C  | EOS      |

| Trt No. | Treatment Name  | Form Conc | Form Type | Rate    | Rate Unit | Other Rate | Other Rate Unit | Growth Stage | Appl Code |        |       |      |      |
|---------|-----------------|-----------|-----------|---------|-----------|------------|-----------------|--------------|-----------|--------|-------|------|------|
| 1       | NONTREATED      |           |           |         |           |            |                 |              |           | 0 d    | 99 a  | 99 a | 99 a |
| 2       | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 0 d    | 99 a  | 99 a | 99 a |
| 2       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |        |       |      |      |
| 2       | TOUCHDOWN TOTAL | 4.17      | SL        | 0.78    | lb ae/a   | 24         | fl oz/a         | FALL         | A         |        |       |      |      |
| 3       | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 97 ab  | 99 a  | 99 a | 99 a |
| 3       | ENVOKE          | 75        | WG        | 0.0047  | lb ai/a   | 0.1        | oz/a            | FALL         | A         |        |       |      |      |
| 3       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |        |       |      |      |
| 3       | TOUCHDOWN TOTAL | 4.17      | SL        | 0.78    | lb ae/a   | 24         | fl oz/a         | FALL         | A         |        |       |      |      |
| 4       | ENVOKE          | 75        | WG        | 0.0047  | lb ai/a   | 0.1        | oz/a            | FALL         | A         | 96 ab  | 99 a  | 99 a | 99 a |
| 4       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |        |       |      |      |
| 4       | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |        |       |      |      |
| 5       | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 98 a   | 99 a  | 99 a | 99 a |
| 5       | ENVOKE          | 75        | WG        | 0.00586 | lb ai/a   | 0.125      | oz/a            | FALL         | A         |        |       |      |      |
| 5       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |        |       |      |      |
| 5       | TOUCHDOWN TOTAL | 4.17      | SL        | 0.78    | lb ae/a   | 24         | fl oz/a         | FALL         | A         |        |       |      |      |
| 6       | ENVOKE          | 75        | WG        | 0.00586 | lb ai/a   | 0.125      | oz/a            | FALL         | A         | 98 a   | 99 a  | 99 a | 99 a |
| 6       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |        |       |      |      |
| 6       | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |        |       |      |      |
| 7       | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 99 a   | 98 ab | 99 a | 99 a |
| 7       | ENVOKE          | 75        | WG        | 0.007   | lb ai/a   | 0.15       | oz/a            | FALL         | A         |        |       |      |      |
| 7       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |        |       |      |      |
| 7       | TOUCHDOWN TOTAL | 4.17      | SL        | 0.78    | lb ae/a   | 24         | fl oz/a         | FALL         | A         |        |       |      |      |
| 8       | ENVOKE          | 75        | WG        | 0.007   | lb ai/a   | 0.15       | oz/a            | FALL         | A         | 99 a   | 99 a  | 99 a | 99 a |
| 8       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |        |       |      |      |
| 8       | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |        |       |      |      |
| 9       | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 99 a   | 99 a  | 99 a | 99 a |
| 9       | ENVOKE          | 75        | WG        | 0.014   | lb ai/a   | 0.3        | oz/a            | FALL         | A         |        |       |      |      |
| 9       | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |        |       |      |      |
| 9       | TOUCHDOWN TOTAL | 4.17      | SL        | 0.52    | lb ae/a   | 16         | fl oz/a         | FALL         | A         |        |       |      |      |
| 10      | ENVOKE          | 75        | WG        | 0.014   | lb ai/a   | 0.3        | oz/a            | FALL         | A         | 99 a   | 99 a  | 99 a | 99 a |
| 10      | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |        |       |      |      |
| 10      | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |        |       |      |      |
| 11      | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 92 abc | 99 a  | 99 a | 99 a |
| 11      | CLASSIC         | 25        | WG        | 0.0156  | lb ai/a   | 1          | oz/a            | FALL         | A         |        |       |      |      |
| 11      | EXPRESS         | 50        | SG        | 0.00313 | lb ai/a   | 0.1        | oz/a            | FALL         | A         |        |       |      |      |
| 11      | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |        |       |      |      |
| 11      | TOUCHDOWN TOTAL | 4.17      | SL        | 0.52    | lb ae/a   | 16         | fl oz/a         | FALL         | A         |        |       |      |      |
| 12      | CLASSIC         | 25        | WG        | 0.0156  | lb ai/a   | 1          | oz/a            | FALL         | A         | 89 bc  | 97 b  | 99 a | 99 a |
| 12      | EXPRESS         | 50        | SG        | 0.00313 | lb ai/a   | 0.1        | oz/a            | FALL         | A         |        |       |      |      |
| 12      | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |        |       |      |      |
| 12      | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |        |       |      |      |
| 13      | N-PAK AMS       | 100       | SL        | 3.33    | % v/v     | 3.33       | % v/v           | FALL         | A         | 88 c   | 99 a  | 99 a | 99 a |
| 13      | VALOR SX        | 51        | WG        | 0.064   | lb ai/a   | 2          | oz/a            | FALL         | A         |        |       |      |      |
| 13      | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |        |       |      |      |
| 13      | TOUCHDOWN TOTAL | 4.17      | SL        | 0.52    | lb ae/a   | 16         | fl oz/a         | FALL         | A         |        |       |      |      |
| 14      | VALOR SX        | 51        | WG        | 0.064   | lb ai/a   | 2          | oz/a            | FALL         | A         | 94 abc | 99 a  | 99 a | 99 a |
| 14      | 2,4-D LV 4      | 3.8       | EC        | 0.475   | lb ae/a   | 16         | fl oz/a         | FALL         | A         |        |       |      |      |
| 14      | PRIME OIL COC   | 100       | SL        | 1       | % v/v     | 1          | % v/v           | FALL         | A         |        |       |      |      |

LSD (P=.05)

8.1      1.9      0.0      0.0

Replicate F  
Replicate Prob(F)  
Treatment F  
Treatment Prob(F)

4.530  
0.0081    0.739    0.000    0.000  
152.159    0.925    0.000    0.000  
0.0001    0.5368    1.0000    1.0000

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

Fall Envoke for Marestalk Management.

Trial ID: 09-YRC-SYN-Fall

Location: Young Res. Center

Trial Comments

1. Protocol: Syngenta (TF050A).
2. Ratings: WC 14-21 DAT, April 1, at planting, at "C" application, 35-42 DA-"C", and at harvest.  
CI and stunting at 14, 28, 42 and 63 DAE.
3. Yield (bu/A).
4. Blanket PRE and POST applications;
  - A. If there is no suspicion of glyphosate-resistant amaranthus species,  
Gramoxone Inteon (40 fl oz/A) + Prefix (32 fl oz/A) applied PRE 10 ft wide to all plots including the nontreated at planting.  
Plus Touchdown Total (24 fl oz/A) + AMS applied POST 10 ft wide to all plots including the nontreated when escaped weeds from the PRE reach 2-4 inch.
  - B. If there is suspicion of glyphosate-resistant amaranthus species,  
Gramoxone Inteon (40 fl oz/A) + Boundary (max label rate for soil type) applied PRE 10 ft wide to all plots including the nontreated at planting.  
Plus A16918A: fomesafen + glyphosate premix (1402 g ae/ha) applied POST 10 ft wide to all plots including the nontreated when escaped weeds from the PRE reach 2-4 inch.
5. Plant each plot with 2 rows of STS and 2 rows of GAT soybean.
6. On 12-14-08, not enough ERICA to rate all plots.
7. ERICA-HR = Herbicide-resistant marestalk (glyphosate).  
AMASS = Amaranth species including AMATA (common waterhemp) and AMARE (redroot pigweed).  
EOS = End of season.
8. Stand reduction due to deer feeding was observed and recorded by plot.
9. Harvested 11-6-09, (2) 30 inch rows by 26.7 ft.