

Ignite and Laudis - AMS and Deposition Aides.

Trial ID: 09-52-MMW50

Location: Belleville Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu  
 City State Zip Country: Belleville IL 62221 USA  
 Trial Status: FINAL Initiation Date: 05-24-09

Objectives: Evaluate the crop tolerance and weed control of Ignite and Laudis applied with several commercial AMS and deposition aid adjuvant products.

Crop 1: ZEAMD Dent corn Variety: P33K44 Description: RR/LL  
 Planting Method: SEEDED Planting Date: 05-24-09  
 Rate, Unit: 28000 S/A Depth, Unit: 1.5 IN  
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: GGGAN grasses, annual  
 Pest 2 Type: W Code: AMBTR Ambrosia trifida L. ragweed, giant  
 Pest 3 Type: W Code: AMATA Amaranthus rudis Sauer waterhemp, common  
 Pest 4 Type: W Code: ABUTH Abutilon theophrasti Medicus velvetleaf

Plot Width, Unit: 10 FT Site Type: FIELD  
 Plot Length, Unit: 25 FT Tillage Type: REDUCED-TILL  
 Replications: 3 Study Design: Randomized Complete Block

Prior Crops, Year  
 1. GLXMA 2008

Field Prep./Maintenance: N 150 LB/A, P2O5 0 LB/A, K2O 100 LB/A

% OM: 2.2 Texture: SILT LOAM  
 pH: 6.9 Soil Name: PIERRON  
 CEC: 9 Fert. Level: P1: 107 LB/A, K: 420 LB/A

## Application Description

A  
 Application Date: 06-18-09  
 Time of Day: 9:00  
 Application Method: Spray  
 Application Timing: 4-6"WH  
 Application Placement: BROFOL  
 Applied By: DKT  
 Air Temperature, Unit: 80 F  
 % Relative Humidity: 92  
 Wind Velocity, Unit: 4 MPH  
 Wind Direction: W  
 Dew Presence (Y/N): N  
 Soil Moisture: ABONOR  
 % Cloud Cover: 5

06-18-09  
 Crop stage at application: V3-4  
 Height Min, Max (inch): 20 26

## Pest Stage At Each Application

Application Date: 06-18-09  
 Weed Code: GGGAN  
 Stage Majority (leaves): 3  
 Stage Min, Max: 1 5  
 Height Majority: 7 IN  
 Height Min, Max: 3 12  
 Density, Unit: 1.5 FT2  
 Weed Code: AMBTR  
 Stage Majority (leaves): 8  
 Stage Min, Max: 3 12  
 Height Majority: 10 IN  
 Height Min, Max: 4 24  
 Density, Unit: 3 FT2  
 Weed Code: AMATA  
 Stage Majority (leaves): 5  
 Stage Min, Max: 3 8  
 Height Majority: 5 IN  
 Height Min, Max: 2 8  
 Density, Unit: 2 FT2  
 Weed Code: ABUTH  
 Stage Majority (leaves): 2  
 Stage Min, Max: 1 4  
 Height Majority: 4 IN  
 Height Min, Max: 3 6  
 Density, Unit: 0.25 FT2

## Application Equipment

Appl. Equipment: CO2 sprayer  
 Operating Pressure: 30 PSI  
 Nozzle Type: Flat fan  
 Nozzle Size: XR 8002  
 Boom Length, Unit: 7.5 FT  
 Spray Volume, Unit: 15 GPA



Ignite and Laudis - AMS and Deposition Aides.

Trial ID: 09-52-MMW50

Location: Belleville Res. Center

|                   |                        |           |           |        |           |            |                 |              | AMBTR     | AMBTR    | AMATA    | AMATA    | ABUTH    | ABUTH    |
|-------------------|------------------------|-----------|-----------|--------|-----------|------------|-----------------|--------------|-----------|----------|----------|----------|----------|----------|
| Pest Code         |                        |           |           |        |           |            |                 |              | 07-02-09  | 07-16-09 | 07-02-09 | 07-16-09 | 07-02-09 | 07-16-09 |
| Crop Code         |                        |           |           |        |           |            |                 |              | Control   | Control  | Control  | Control  | Control  | Control  |
| Rating Date       |                        |           |           |        |           |            |                 |              | Percent   | Percent  | Percent  | Percent  | Percent  | Percent  |
| Rating Data Type  |                        |           |           |        |           |            |                 |              |           |          |          |          |          |          |
| Rating Unit       |                        |           |           |        |           |            |                 |              |           |          |          |          |          |          |
| Rating Timing     |                        |           |           |        |           |            |                 |              |           |          |          |          |          |          |
| Trt-Eval Interval |                        |           |           |        |           |            |                 |              | 14 DA-A   | 28 DA-A  | 14 DA-A  | 28 DA-A  | 14 DA-A  | 28 DA-A  |
| Trt No.           | Treatment Name         | Form Conc | Form Type | Rate   | Rate Unit | Other Rate | Other Rate Unit | Growth Stage | Appl Code |          |          |          |          |          |
| 1                 | NONTREATED             |           |           |        |           |            |                 |              |           | 0 c      | 0 c      | 0 g      | 0 f      | 0 e      |
| 2                 | IGNITE 280             | 2.34      | EC        | 0.402  | lb ai/a   | 22         | fl oz/a         | 4-6"WH       | A         | 98 a     | 93 b     | 33 f     | 27 e     | 40 d     |
| 2                 | AMS                    | 100       | SG        | 1.2    | % w/w     | 1.5        | lb/a            | 4-6"WH       | A         |          |          |          |          | 40 d     |
| 3                 | LAUDIS                 | 3.5       | SC        | 0.0547 | lb ai/a   | 2          | fl oz/a         | 4-6"WH       | A         | 96 b     | 99 a     | 89 a     | 96 a     | 85 b     |
| 3                 | MSO (DESTINY)          | 100       | SL        | 1      | pt/a      | 1          | pt/a            | 4-6"WH       | A         |          |          |          |          | 93 ab    |
| 3                 | AMS                    | 100       | SG        | 1.2    | % w/w     | 1.5        | lb/a            | 4-6"WH       | A         |          |          |          |          |          |
| 4                 | IGNITE 280             | 2.34      | EC        | 0.402  | lb ai/a   | 22         | fl oz/a         | 4-6"WH       | A         | 98 a     | 98 a     | 68 bc    | 47 b-e   | 98 a     |
| 4                 | LAUDIS                 | 3.5       | SC        | 0.0547 | lb ai/a   | 2          | fl oz/a         | 4-6"WH       | A         |          |          |          |          | 98 a     |
| 4                 | AMS                    | 100       | SG        | 1.2    | % w/w     | 1.5        | lb/a            | 4-6"WH       | A         |          |          |          |          |          |
| 5                 | IGNITE 280             | 2.34      | EC        | 0.402  | lb ai/a   | 22         | fl oz/a         | 4-6"WH       | A         | 98 a     | 98 a     | 73 bc    | 65 b     | 99 a     |
| 5                 | LAUDIS                 | 3.5       | SC        | 0.0547 | lb ai/a   | 2          | fl oz/a         | 4-6"WH       | A         |          |          |          |          | 99 a     |
| 5                 | WEATHER GUARD COMPLETE | 100       | SL        | 0.5    | % v/v     | 2          | qt/100 gal      | 4-6"WH       | A         |          |          |          |          |          |
| 6                 | IGNITE 280             | 2.34      | EC        | 0.402  | lb ai/a   | 22         | fl oz/a         | 4-6"WH       | A         | 98 a     | 99 a     | 63 cde   | 47 b-e   | 99 a     |
| 6                 | LAUDIS                 | 3.5       | SC        | 0.0547 | lb ai/a   | 2          | fl oz/a         | 4-6"WH       | A         |          |          |          |          | 93 ab    |
| 6                 | ARRAY                  | 100       | SG        | 1.08   | % w/w     | 9          | lb/100 gal      | 4-6"WH       | A         |          |          |          |          |          |
| 7                 | IGNITE 280             | 2.34      | EC        | 0.402  | lb ai/a   | 22         | fl oz/a         | 4-6"WH       | A         | 98 a     | 97 a     | 67 bcd   | 57 bcd   | 96 a     |
| 7                 | LAUDIS                 | 3.5       | SC        | 0.0547 | lb ai/a   | 2          | fl oz/a         | 4-6"WH       | A         |          |          |          |          | 85 ab    |
| 7                 | CLASS ACT NG           | 100       | SL        | 1.25   | % v/v     | 5          | qt/100 gal      | 4-6"WH       | A         |          |          |          |          |          |
| 7                 | INTERLOCK              | 100       | SL        | 4      | fl oz/a   | 4          | fl oz/a         | 4-6"WH       | A         |          |          |          |          |          |
| 8                 | IGNITE 280             | 2.34      | EC        | 0.402  | lb ai/a   | 22         | fl oz/a         | 4-6"WH       | A         | 98 a     | 98 a     | 78 ab    | 67 b     | 99 a     |
| 8                 | LAUDIS                 | 3.5       | SC        | 0.0547 | lb ai/a   | 2          | fl oz/a         | 4-6"WH       | A         |          |          |          |          | 96 ab    |
| 8                 | GARDIAN PLUS           | 100       | SL        | 2.5    | % v/v     | 2.5        | gal/100 gal     | 4-6"WH       | A         |          |          |          |          |          |
| 9                 | IGNITE 280             | 2.34      | EC        | 0.402  | lb ai/a   | 22         | fl oz/a         | 4-6"WH       | A         | 98 a     | 98 a     | 53 de    | 43 b-e   | 83 b     |
| 9                 | LAUDIS                 | 3.5       | SC        | 0.0547 | lb ai/a   | 2          | fl oz/a         | 4-6"WH       | A         |          |          |          |          | 80 b     |
| 9                 | ACCUZONE DC            | 100       | SG        | 1.08   | % w/w     | 9          | lb/100 gal      | 4-6"WH       | A         |          |          |          |          |          |
| 10                | IGNITE 280             | 2.34      | EC        | 0.402  | lb ai/a   | 22         | fl oz/a         | 4-6"WH       | A         | 98 a     | 98 a     | 73 bc    | 59 bc    | 99 a     |
| 10                | LAUDIS                 | 3.5       | SC        | 0.0547 | lb ai/a   | 2          | fl oz/a         | 4-6"WH       | A         |          |          |          |          | 98 a     |
| 10                | DOUBLEDOWN             | 100       | SL        | 2.5    | % v/v     | 2.5        | gal/100 gal     | 4-6"WH       | A         |          |          |          |          |          |
| 11                | IGNITE 280             | 2.34      | EC        | 0.402  | lb ai/a   | 22         | fl oz/a         | 4-6"WH       | A         | 98 a     | 98 a     | 67 bcd   | 37 cde   | 98 a     |
| 11                | LAUDIS                 | 3.5       | SC        | 0.0547 | lb ai/a   | 2          | fl oz/a         | 4-6"WH       | A         |          |          |          |          | 89 ab    |
| 11                | BORDER XTRA 8L         | 100       | SL        | 2.5    | % v/v     | 2.5        | gal/100 gal     | 4-6"WH       | A         |          |          |          |          |          |
| 12                | IGNITE 280             | 2.34      | EC        | 0.402  | lb ai/a   | 22         | fl oz/a         | 4-6"WH       | A         | 98 a     | 97 a     | 50 e     | 33 de    | 73 c     |
| 12                | LAUDIS                 | 3.5       | SC        | 0.0547 | lb ai/a   | 2          | fl oz/a         | 4-6"WH       | A         |          |          |          |          | 60 c     |
| 12                | BRONC MAX              | 100       | SL        | 0.5    | % v/v     | 2          | qt/100 gal      | 4-6"WH       | A         |          |          |          |          |          |
| LSD (P=.05)       |                        |           |           |        |           |            |                 |              | 0.6       | 2.3      | 13.9     | 23.8     | 10.1     | 18.0     |
| Replicate F       |                        |           |           |        |           |            |                 |              | 1.453     | 4.710    | 0.307    | 0.667    | 0.361    | 1.066    |
| Replicate Prob(F) |                        |           |           |        |           |            |                 |              | 0.2555    | 0.0198   | 0.7387   | 0.5231   | 0.7012   | 0.3624   |
| Treatment F       |                        |           |           |        |           |            |                 |              | 17858.191 | 1291.103 | 24.832   | 8.679    | 80.584   | 24.432   |
| 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, LSD)

## Trial Comments

1. Protocol: Bayer (JNA).
2. Ratings: CI at 6-10 DAT; CI/WC at 14 + 28 DAT.
3. GGGAN = Annual grasses including SETFA (giant foxtail) and PANDI (fall panicum).
4. Not harvested.