

2008 Soybean Herbicide Programs Study 2

Trial ID: 30 08 SB Herb Study2      Protocol ID: 08 Soybean Herb Study2  
 Location: Concord, NE      Study Director: Stevan Knezevic  
    Investigator: Stevan Knezevic

General Trial Information

Study Director: Stevan Knezevic  
Investigator: Stevan Knezevic

Trial Location

City: Concord  
State/Prov.: NE  
Postal Code: 68728  
Country: USA

Cooperator/Landowner

Cooperator: Haskell Agricultural Laboratory      Country: USA  
 Organization: University of Nebraska      Phone No: 402-584-2261  
 Address 1: 57905 866 RD      Fax No: 402-584-3859  
 City: Concord  
 State/Prov: NE  
 Postal Code: 68728

Crop Description

Crop 1: GLXMA Glycine max      Soybean  
 Variety: Asgrow DKB 27-52  
 BBCH Scale: BSOY      Planting Date: 06-10-08  
 Planting Method: seeded      Rate, Unit: 196000 s/a  
 Depth, Unit: 1 in  
 Row Spacing, Unit: 30 in

Pest Description

Pest 1 Type: W    Code: SETVI    *Setaria viridis* (L.) P.Beauv.  
    Common Name: Foxtail, green

Pest 2 Type: W    Code: ABUTH    *Abutilon theophrasti* Medik.  
    Common Name: Velvetleaf

Pest 3 Type: W    Code: AMATU    *Amaranthus tuberculatos* (Moq.) J  
    Common Name: Waterhemp, tall

Site and Design

Plot Width, Unit: 10    FT      Site Type: FIELD  
 Plot Length, Unit: 30    FT      Tillage Type: CONVENTIONAL-TILL  
 Replications: 3      Study Design: Randomized Complete Block

Field Prep./Maintenance:

Fall 2007 V-rip, Spring disc, Field cultivate 5-6-08, Field cultivate 6-10-08

Soil Description

Description Name: 08SBHF23  
 % Sand: 14      % OM: 4.4      Texture: SILTY CLAY LOAM  
 % Silt: 54      pH: 6.1  
 % Clay: 32      CEC: 24.2      Fert. Level: FAIR  
 Analyzed By:  
 Midwest Labs

Application Description

|                         | A        |     | B        |     |
|-------------------------|----------|-----|----------|-----|
| Application Date:       | 06-10-08 |     | 07-11-08 |     |
| Time of Day:            | 1:45 pm  |     | 9:00 am  |     |
| Application Method:     | spray    |     | spray    |     |
| Application Timing:     | PRE      |     | POST     |     |
| Application Placement:  | surface  |     | foliar   |     |
| Applied By:             | RR       |     |          |     |
| Air Temperature, Unit:  | 75       | F   | 83       | F   |
| % Relative Humidity:    | 44       |     | 69       |     |
| Wind Velocity, Unit:    | 9        | mph | 4        | mph |
| Wind Direction:         | S        |     |          |     |
| Dew Presence (Y/N):     | n        |     |          |     |
| Soil Temperature, Unit: | 70       | F   | 69       | F   |
| Soil Moisture:          | Good     |     | ADEQUATE |     |
| % Cloud Cover:          | 5        |     | 10       |     |

## Crop Stage At Each Application

|                          | A          | B          |
|--------------------------|------------|------------|
| Crop 1 Code, BBCH Scale: | GLXMA BSOY | GLXMA BSOY |
| Stage Scale Used:        |            | BBCH       |
| Stage Majority, Percent: |            | 3T         |
| Height, Unit:            |            | 10 in      |

## Pest Stage At Each Application

|                            | A       | B       |
|----------------------------|---------|---------|
| Pest 1 Code, Disc., Scale: | SETVI W | SETVI W |
| Height, Unit:              |         | 4 in    |
| Density, Unit:             |         | 5 m2    |
| Pest 2 Code, Disc., Scale: | ABUTH W | ABUTH W |
| Height, Unit:              |         | 4 in    |
| Density, Unit:             |         | 5 m2    |
| Pest 3 Code, Disc., Scale: | AMATU W | AMATU W |
| Height, Unit:              |         | 4 in    |
| Density, Unit:             |         | 5 m2    |

## Application Equipment

|                           | A          | B          |
|---------------------------|------------|------------|
| Appl. Equipment:          | backpack   | BACKPACK   |
| Operating Pressure, Unit: | 20 psi     | 40 PSI     |
| Nozzle Type:              | Turbo Tee  | TURBO TEE  |
| Nozzle Size:              | 11003      | 11002      |
| Nozzle Spacing, Unit:     | 20 IN      | 20 IN      |
| Boom Length, Unit:        | 10 FT      | 10 FT      |
| Boom Height, Unit:        | 12 IN      | 12 IN      |
| Ground Speed, Unit:       | 2.7 MPH    | 2.7 MPH    |
| Carrier:                  | WATER      | WATER      |
| Spray Volume, Unit:       | 20 GPA     | 20 GPA     |
| Mix Size, Unit:           | 1.8 Liters | 1.8 Liters |
| Propellant:               | co2        | co2        |

Northeast Research & Extension Center

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 Location: Concord, NE Study Director: Stevan Knezevic  
 Investigator: Stevan Knezevic

| Description                   | Green foxtial    | Green foxtial | Green foxtial | Velvetleaf      | Velvetleaf   | Velvetleaf | Waterhemp | Waterhemp | Waterhemp |        |        |         |        |        |
|-------------------------------|------------------|---------------|---------------|-----------------|--------------|------------|-----------|-----------|-----------|--------|--------|---------|--------|--------|
| Rating Date                   | 07-14-08         | 07-30-08      | 08-25-08      | 07-14-08        | 07-30-08     | 08-25-08   | 07-14-08  | 07-30-08  | 08-25-08  |        |        |         |        |        |
| Rating Data Type              | Control          | Control       | Control       | Control         | Control      | Control    | Control   | Control   | Control   |        |        |         |        |        |
| Rating Unit                   | Percent          | Percent       | Percent       | Percent         | Percent      | Percent    | Percent   | Percent   | Percent   |        |        |         |        |        |
| Days After First/Last Applic. | 34 3             | 50 0          | 76 26         | 34 3            | 50 0         | 76 26      | 34 3      | 50 0      | 76 26     |        |        |         |        |        |
| Plant-Eval Interval           | 34 DP-1          | 50 DP-1       | 76 DP-1       | 34 DP-1         | 50 DP-1      | 76 DP-1    | 34 DP-1   | 50 DP-1   | 76 DP-1   |        |        |         |        |        |
| Trt No.                       | Treatment        | Rate          | Other Rate    | Other Rate Unit | Growth Stage |            |           |           |           |        |        |         |        |        |
| 1                             | Authority Assist | 5 oz/a        |               |                 | PRE          | 33.3 c     | 99.0 a    | 99.0 a    | 31.7 cd   | 99.0 a | 96.3 a | 33.3 c  | 99.0 a | 99.0 a |
|                               | Touchdown Total  | 24 oz/a       | 880 g a/ha    |                 | POST         |            |           |           |           |        |        |         |        |        |
|                               | AMS              | 17 lb/100 gal |               |                 | POST         |            |           |           |           |        |        |         |        |        |
| 2                             | Authority Assist | 6 oz/a        |               |                 | PRE          | 41.7 bc    | 97.7 a    | 99.0 a    | 31.7 cd   | 99.0 a | 99.0 a | 31.7 c  | 99.0 a | 99.0 a |
|                               | Touchdown Total  | 24 oz/a       | 880 g a/ha    |                 | POST         |            |           |           |           |        |        |         |        |        |
|                               | AMS              | 17 lb/100 gal |               |                 | POST         |            |           |           |           |        |        |         |        |        |
| 3                             | Scepter          | 2 oz/a        |               |                 | PRE          | 78.3 a     | 99.0 a    | 99.0 a    | 63.3 ab   | 99.0 a | 97.7 a | 70.0 ab | 99.0 a | 99.0 a |
|                               | Touchdown Total  | 24 oz/a       | 880 g a/ha    |                 | POST         |            |           |           |           |        |        |         |        |        |
|                               | AMS              | 17 lb/100 gal |               |                 | POST         |            |           |           |           |        |        |         |        |        |
| 4                             | Prowl H2O        | 2.5 pt/a      |               |                 | PRE          | 56.7 b     | 99.0 a    | 99.0 a    | 25.0 d    | 94.5 a | 99.0 a | 90.0 a  | 99.0 a | 99.0 a |
|                               | Touchdown Total  | 24 oz/a       | 880 g a/ha    |                 | POST         |            |           |           |           |        |        |         |        |        |
|                               | AMS              | 17 lb/100 gal |               |                 | POST         |            |           |           |           |        |        |         |        |        |
| 5                             | Prowl H2O        | 2 pt/a        |               |                 | PRE          | 76.7 a     | 71.7 c    | 78.3 b    | 76.7 a    | 56.7 b | 78.3 b | 58.3 b  | 46.7 b | 85.0 b |
|                               | Extreme          | 2 pt/a        |               |                 | PRE          |            |           |           |           |        |        |         |        |        |
| 6                             | Pursuit Plus     | 1.75 pt/a     |               |                 | PRE          | 53.3 b     | 93.0 b    | 99.0 a    | 53.3 abc  | 99.0 a | 99.0 a | 83.3 a  | 99.0 a | 94.3 a |
|                               | Touchdown Total  | 24 oz/a       | 880 g a/ha    |                 | POST         |            |           |           |           |        |        |         |        |        |
|                               | AMS              | 17 lb/100 gal |               |                 | POST         |            |           |           |           |        |        |         |        |        |
| 7                             | Touchdown Total  | 24 oz/a       | 880 g a/ha    |                 | POST         |            | 99.0 a    | 99.0 a    |           | 99.0 a | 99.0 a |         | 99.0 a | 99.0 a |
|                               | AMS              | 17 lb/100 gal |               |                 | POST         |            |           |           |           |        |        |         |        |        |
| 8                             | Enlite (mixture) | 2.8 oz/a      |               |                 | PRE          | 31.7 c     | 99.0 a    | 99.0 a    | 36.7 bcd  | 99.0 a | 99.0 a | 21.7 c  | 99.0 a | 99.0 a |
|                               | chlorimuron      | 0.32 oz/a     | 0.08 oz a/a   |                 | PRE          |            |           |           |           |        |        |         |        |        |
|                               | thifensulfuron   | 0.5 oz/a      | 0.25 oz a/a   |                 | PRE          |            |           |           |           |        |        |         |        |        |
|                               | flumioxazin      | 1.96 oz/a     | 1 oz a/a      |                 | PRE          |            |           |           |           |        |        |         |        |        |
|                               | Synchrony XP     | 0.375 oz/a    |               |                 | POST         |            |           |           |           |        |        |         |        |        |
|                               | chlorimuron      | 0.3225 oz/a   |               |                 | POST         |            |           |           |           |        |        |         |        |        |
|                               | thifensulfuron   | 0.05175 oz/a  |               |                 | POST         |            |           |           |           |        |        |         |        |        |
|                               | Touchdown Total  | 24 oz/a       | 880 g a/ha    |                 | POST         |            |           |           |           |        |        |         |        |        |
|                               | AMS              | 17 lb/100 gal |               |                 | POST         |            |           |           |           |        |        |         |        |        |
| LSD (P=.05)                   |                  | 19.65         | 3.76          | 1.87            | 26.73        | 14.57      | 2.97      | 20.65     | 3.74      | 6.15   |        |         |        |        |
| Standard Deviation            |                  | 11.05         | 2.13          | 1.06            | 14.87        | 8.19       | 1.69      | 11.61     | 2.12      | 3.49   |        |         |        |        |
| CV                            |                  | 20.8          | 2.25          | 1.1             | 32.71        | 8.79       | 1.76      | 20.92     | 2.29      | 3.61   |        |         |        |        |
| Grand Mean                    |                  | 53.1          | 94.67         | 96.42           | 45.48        | 93.15      | 95.92     | 55.48     | 92.46     | 96.67  |        |         |        |        |
| Replicate F                   |                  | 3.698         | 2.460         | 0.929           | 1.055        | 0.761      | 0.191     | 0.804     | 0.929     | 0.929  |        |         |        |        |
| Replicate Prob(F)             |                  | 0.0561        | 0.1241        | 0.4198          | 0.3810       | 0.4883     | 0.8286    | 0.4702    | 0.4198    | 0.4198 |        |         |        |        |
| Treatment F                   |                  | 8.956         | 59.932        | 142.777         | 5.044        | 9.827      | 54.322    | 16.283    | 228.884   | 6.140  |        |         |        |        |
| Treatment Prob(F)             |                  | 0.0007        | 0.0001        | 0.0001          | 0.0102       | 0.0004     | 0.0001    | 0.0001    | 0.0001    | 0.0025 |        |         |        |        |

Means followed by same letter do not significantly differ (P=.05, LSD)  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Additional Treatment Information  
Rate Unit  
 OZ/A = Ounces Product per Acre (Metric=ML-G/HA)|O  
 LB/100 GAL = Pounds Dry Product per 100 Gallons Mix (Metric=KG/100 L)|  
 PT/A = Pints Product per Acre (Metric=L/HA)|P  
Other Rate Unit  
 G A/HA = Grams Active Ingredient per Hectare  
 OZ A/A = Ounces Active Ingredient per Acre