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## Evaluate efficacy of Zidua when applied preemergence in conventional tilled soybean

Trial ID: 11S-SEP-NTS-14      Protocol ID: 11S-SEP-NTS-14  
 Location: SEPAC      Study Director: Paul Marquardt  
 Project ID: 11S-SEP-NTS-14      Investigator: Dr. Bill Johnson  
 Sponsor Contact: Gery Welker

### General Trial Information

**Study Director:** Paul Marquardt      **Title:** Research Associate  
**Investigator:** Dr. Bill Johnson      **Title:** Professor

**Discipline:** H herbicide  
**Trial Status:** E established  
**Initiation Date:** 5-12-2011

### Trial Location

**City:** Butleville  
**State/Prov.:** IN  
**Postal Code:** 47223  
**Country:** USA

### Personnel

**Study Director:** Paul Marquardt      **Title:** Research Associate  
**Affiliation:** Purdue University  
**Address:** 915 W. State Street  
**Location:** West Lafayette, IN  
**Postal Code:** 47907      **E-mail:** pmarquar@purdue.edu  
**Phone No.:** 765-494-0891      **Mobile No.:** 765-409-6369  
**Investigator:** Dr. Bill Johnson      **Title:** Professor  
**Affiliation:** Purdue University  
**Address:** 915 W. State Street  
**Location:** West Lafayette, IN  
**Postal Code:** 47907      **E-mail:** wji@purdue.edu  
**Phone No.:** 765-494-4656      **Mobile No.:** 765-404-9801

### Cooperator/Landowner

**Cooperator:** Don Biehle      **Role:** Director  
**Organization:** Southeast Purdue Agricultural Center      **Org. Type:** University  
**Address 1:** 4425 E. CR 350 N  
**City:** Butleville      **Phone No.:** 812-458-6977  
**State/Prov.:** IN      **Fax No.:** 812-458-6979  
**Postal Code:** 47223      **Mobile No.:** 812-592-8426  
**Country:** USA      **E-mail:** biehled@purdue.edu  
 United States

### Crop Description

**Crop 1:** GLXMA      Glycine max      Soybean  
**Variety:** AG2931      **Description:** Roundup Ready  
**BBCH Scale:** BSOY      **Planting Date:** 6-3-2011  
**Planting Method:** DIRDRI      direct drilled      **Rate, Unit:** 160000      S/A  
**Depth, Unit:** 1      IN  
**Row Spacing, Unit:** 30      IN      **Spacing Within Row, Unit:** 2      IN  
**Seed Bed:** MEDIUM      medium      **Soil Temperature, Unit:** 75      F  
**Soil Moisture:** MOIST      **Emergence Date:** 6-8-2011  
**Harvest Date:** 10-25-2011      **Harvest Equipment:** Gleaner F3 Combine  
**Harvested Width, Unit:** 10      FT      **Harvested Length, Unit:** 25      FT  
**% Standard Moisture:** 13.0      **Moisture Meter:** Carter 3" Blade  
**Weighing Equipment:** Harvestmaster400

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| Site and Design  |   |
|--|---|
| <b>Plot Width, Unit:</b> 10 FT<br><b>Plot Length, Unit:</b> 30 FT<br><b>Plot Area, Unit:</b> 300 FT <sup>2</sup><br><b>Replications:</b> 4 | <b>Site Type:</b> FIELD field<br><b>Experimental Unit:</b> 1 PLOT plot<br><b>Tillage Type:</b> NOTILL no-till<br><b>Study Design:</b> RACOB L Randomized Complete Block (RCB)<br><b>Untreated Arrangement:</b> INCLUDED single control randomized in each block |

| Maintenance   |          |                            |
|---|----------|----------------------------|
| No.   | Date     | Maintenance Treatment Name |
| 1.  | 5-5-2011 | BURNDOWN                   |
| <b>Field Prep./Maintenance:</b><br>22 oz PowerMax and 1.0 lb 2,4-D burndown prior to planting |          |                            |

| Soil Description   |   |   |
|--|---|---|
| <b>Description Name:</b> SEPAC-Field U41<br><table style="width: 100%; border: none;"> <tr> <td style="width: 50%;"> <b>% OM:</b> 1.3<br/> <b>pH:</b> 6.5<br/> <b>CEC:</b> 5.7                 </td> <td style="width: 50%;"> <b>Texture:</b> SIL silt loam<br/> <b>Soil Name:</b> Avonburg<br/> <b>Fert. Level:</b> G good<br/> <b>Soil Drainage:</b> P poor                 </td> </tr> </table> | <b>% OM:</b> 1.3<br><b>pH:</b> 6.5<br><b>CEC:</b> 5.7   | <b>Texture:</b> SIL silt loam<br><b>Soil Name:</b> Avonburg<br><b>Fert. Level:</b> G good<br><b>Soil Drainage:</b> P poor |
| <b>% OM:</b> 1.3<br><b>pH:</b> 6.5<br><b>CEC:</b> 5.7  | <b>Texture:</b> SIL silt loam<br><b>Soil Name:</b> Avonburg<br><b>Fert. Level:</b> G good<br><b>Soil Drainage:</b> P poor |   |

| Application Description        |          |
|--------------------------------|----------|
|                                | <b>A</b> |
| <b>Application Date:</b>       | 6-3-2011 |
| <b>Time of Day:</b>            | 10 AM    |
| <b>Application Method:</b>     | SPRAY    |
| <b>Application Timing:</b>     | ATPLAN   |
| <b>Application Placement:</b>  | BAND     |
| <b>Applied By:</b>             | RT       |
| <b>Air Temperature, Unit:</b>  | 75 F     |
| <b>% Relative Humidity:</b>    | 62       |
| <b>Wind Velocity, Unit:</b>    | 4 MPH    |
| <b>Wind Direction:</b>         | SE       |
| <b>Dew Presence (Y/N):</b>     | N no     |
| <b>Soil Temperature, Unit:</b> | 75 F     |
| <b>Soil Moisture:</b>          | MOIST    |
| <b>% Cloud Cover:</b>          | 90       |

| Crop Stage At Each Application  |            |
|---------------------------------|------------|
|                                 | <b>A</b>   |
| <b>Crop 1 Code, BBCH Scale:</b> | GLXMA BSOY |
| <b>Stage Scale Used:</b>        | BBCH       |
| <b>Stage Majority, Percent:</b> | 00 100     |

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## Application Equipment

|                                    | A            |
|------------------------------------|--------------|
| <b>Appl. Equipment:</b>            | CO2 Backpack |
| <b>Equipment Type:</b>             | SPRBAC       |
| <b>Operation Pressure, Unit:</b>   | 17 PSI       |
| <b>Nozzle Type:</b>                | Flat Fan     |
| <b>Nozzle Size:</b>                | XR11002      |
| <b>Nozzle Spacing, Unit:</b>       | 15 IN        |
| <b>Nozzles/Row:</b>                | 8            |
| <b>Boom Length, Unit:</b>          | 10 FT        |
| <b>Boom Height, Unit:</b>          | 18 IN        |
| <b>Ground Speed, Unit:</b>         | 3 MPH        |
| <b>Carrier:</b>                    | H2O          |
| <b>Water Hardness (ppm CaCO3):</b> | 150          |
| <b>Spray Volume, Unit:</b>         | 15 GAL/AC    |
| <b>Mix Size, Unit:</b>             | 1.8 Liters   |
| <b>Propellant:</b>                 | CO2          |
| <b>Tank Mix (Y/N):</b>             | N no         |

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## Evaluate efficacy of Zidua when applied preemergence in conventional tilled soybean

Trial ID: 11S-SEP-NTS-14      Protocol ID: 11S-SEP-NTS-14  
 Location: SEPAC                      Study Director: Paul Marquardt  
 Project ID: 11S-SEP-NTS-14      Investigator: Dr. Bill Johnson  
 Sponsor Contact: Gery Welker

| Pest Type                     |                 | W Weed                         | W Weed                  | W Weed              | W Weed         | W Weed        | W Weed            |         |        |        |         |
|-------------------------------|-----------------|--------------------------------|-------------------------|---------------------|----------------|---------------|-------------------|---------|--------|--------|---------|
| Pest Code                     |                 | ERICA                          | AMBEL                   | XANST               | GGGAN          | IPOSS         | ERICA             |         |        |        |         |
| Pest Scientific Name          |                 | Conyza canadensis              | Ambrosia artemisiifolia | Xanthium strumarium | Annual grasses | Ipomoea sp.   | Conyza canadensis |         |        |        |         |
| Pest Name                     |                 | Canada horseweed               | Common ragweed          | Common cocklebur    | Annual grasses | Morning glory | Canada horseweed  |         |        |        |         |
| Crop Code                     | GLXMA           | GLXMA                          | GLXMA                   | GLXMA               | GLXMA          | GLXMA         | GLXMA             |         |        |        |         |
| BBCH Scale                    | BSOY            | BSOY                           | BSOY                    | BSOY                | BSOY           | BSOY          | BSOY              |         |        |        |         |
| Crop Scientific Name          | Glycine max     | Glycine max                    | Glycine max             | Glycine max         | Glycine max    | Glycine max   | Glycine max       |         |        |        |         |
| Crop Name                     | Soybean         | Soybean                        | Soybean                 | Soybean             | Soybean        | Soybean       | Soybean           |         |        |        |         |
| Crop Variety                  | AG2931          | AG2931                         | AG2931                  | AG2931              | AG2931         | AG2931        | AG2931            |         |        |        |         |
| Description                   |                 | 6 IN                           | 6 IN                    | 6 IN                | 6 IN           | 6 IN          |                   |         |        |        |         |
| Rating Date                   | 6-16-2011       | 6-24-2011                      | 6-24-2011               | 6-24-2011           | 6-24-2011      | 6-24-2011     | 7-7-2011          |         |        |        |         |
| Rating Type                   | PHYGEN          | CONTRO                         | CONTRO                  | CONTRO              | CONTRO         | CONTRO        | CONTRO            |         |        |        |         |
| Rating Unit                   | %               | %                              | %                       | %                   | %              | %             | %                 |         |        |        |         |
| Number of Subsamples          | 1               | 1                              | 1                       | 1                   | 1              | 1             | 1                 |         |        |        |         |
| Crop Stage Majority           | VC              | V1                             | V1                      | V1                  | V1             | V1            | V3                |         |        |        |         |
| Pest Stage Majority           |                 | 1-3 IN                         | 1-6 IN                  | 1-8 IN              | 1-8 IN         | 1-8 IN        | 4 IN              |         |        |        |         |
| Pest Density, Unit            |                 | 2.5 YD2                        | 2 YD2                   | 3 YD2               | 52 YD2         | 3 YD2         | 3 YD2             |         |        |        |         |
| Assessed By                   | CB/RH           | PM                             | PM                      | PM                  | PM             | PM            | JR                |         |        |        |         |
| Days After First/Last Applic. | 13 13           | 21 21                          | 21 21                   | 21 21               | 21 21          | 21 21         | 34 34             |         |        |        |         |
| Trt-Eval Interval             | 13 DA-A         | 21 DA-A                        | 21 DA-A                 | 21 DA-A             | 21 DA-A        | 21 DA-A       | 34 DA-A           |         |        |        |         |
| Plant-Eval Interval           | 13 DP-1         | 21 DP-1                        | 21 DP-1                 | 21 DP-1             | 21 DP-1        | 21 DP-1       | 34 DP-1           |         |        |        |         |
| Days After Emergence          | 8 DE-1          | 16 DE-                         | 16 DE-                  | 16 DE-              | 16 DE-         | 16 DE-        | 29 DE-            |         |        |        |         |
| ARM Action Codes              |                 |                                |                         |                     |                |               |                   |         |        |        |         |
| Number of Decimals            |                 |                                |                         |                     |                |               |                   |         |        |        |         |
| Trt No.                       | Treatment Name  | Rate                           | Appl Rate Unit          | Code                | 1              | 2             | 3                 | 4       | 5      | 6      | 7       |
| 1                             | UNTREATED       |                                |                         |                     | 0.0 a          | 0.0 c         | 0.0 b             | 0.0 b   | 0.0 c  | 0.0 c  | 0.0 b   |
| 2                             | Zidua<br>Optill | 89 g ai/ha A<br>95 g ai/ha A   |                         |                     | 3.0 a          | 97.5 a        | 100.0 a           | 99.0 a  | 98.0 a | 95.0 a | 100.0 a |
| 3                             | Valor           | 71.5 g ai/ha A                 |                         |                     | 2.0 a          | 85.0 b        | 94.5 a            | 84.5 a  | 57.5 b | 50.0 b | 30.0 b  |
| 4                             | Prefix          | 1480 g ai/ha A                 |                         |                     | 1.8 a          | 100.0 a       | 100.0 a           | 97.0 a  | 97.0 a | 78.3 a | 86.3 a  |
| 5                             | Zidua<br>Valor  | 89 g ai/ha A<br>71.5 g ai/ha A |                         |                     | 9.5 a          | 93.8 a        | 100.0 a           | 88.8 a  | 96.5 a | 96.0 a | 81.3 a  |
| 6                             | Valor XLT       | 113 g ai/ha A                  |                         |                     | 8.8 a          | 98.8 a        | 95.0 a            | 99.5 a  | 90.8 a | 95.8 a | 65.0 a  |
| LSD (P=.05)                   |                 |                                |                         |                     | 7.34           | 8.52          | 8.78              | 11.19   | 15.93  | 21.45  | 32.20   |
| Standard Deviation            |                 |                                |                         |                     | 4.87           | 5.65          | 5.83              | 7.43    | 10.57  | 14.23  | 21.37   |
| CV                            |                 |                                |                         |                     | 116.95         | 7.14          | 7.14              | 9.51    | 14.42  | 20.58  | 35.37   |
| Bartlett's X2                 |                 |                                |                         |                     | 5.106          | 6.759         | 0.002             | 19.391  | 20.878 | 16.346 | 2.961   |
| P(Bartlett's X2)              |                 |                                |                         |                     | 0.277          | 0.08          | 0.96              | 0.001*  | 0.001* | 0.003* | 0.398   |
| Replicate F                   |                 |                                |                         |                     | 0.342          | 2.957         | 0.725             | 0.055   | 1.827  | 0.416  | 2.436   |
| Replicate Prob(F)             |                 |                                |                         |                     | 0.7956         | 0.0662        | 0.5527            | 0.9823  | 0.1856 | 0.7438 | 0.1050  |
| Treatment F                   |                 |                                |                         |                     | 2.652          | 192.026       | 189.020           | 108.831 | 54.671 | 28.940 | 12.726  |
| Treatment Prob(F)             |                 |                                |                         |                     | 0.0655         | 0.0001        | 0.0001            | 0.0001  | 0.0001 | 0.0001 | 0.0001  |

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

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|                               |                 |               |                 |                |                |                 |               |
|-------------------------------|-----------------|---------------|-----------------|----------------|----------------|-----------------|---------------|
| Pest Type                     | W Weed          | W Weed        | W Weed          | W Weed         | W Weed         | W Weed          | W Weed        |
| Pest Code                     | AMBEL           | IPOSS         | XANST           | GGGAN          | GGGAN          | AMBEL           | IPOSS         |
| Pest Scientific Name          | Ambrosia artem> | Ipomoea sp.   | Xanthium strum> | Annual grasses | Annual grasses | Ambrosia artem> | Ipomoea sp.   |
| Pest Name                     | Common ragweed  | Morning glory | Common cockleb> | Annual grasses | Annual grasses | Common ragweed  | Morning glory |
| Crop Code                     | GLXMA           | GLXMA         | GLXMA           | GLXMA          | GLXMA          | GLXMA           | GLXMA         |
| BBCH Scale                    | BSOY            | BSOY          | BSOY            | BSOY           | BSOY           | BSOY            | BSOY          |
| Crop Scientific Name          | Glycine max     | Glycine max   | Glycine max     | Glycine max    | Glycine max    | Glycine max     | Glycine max   |
| Crop Name                     | Soybean         | Soybean       | Soybean         | Soybean        | Soybean        | Soybean         | Soybean       |
| Crop Variety                  | AG2931          | AG2931        | AG2931          | AG2931         | AG2931         | AG2931          | AG2931        |
| Description                   |                 |               |                 |                |                |                 |               |
| Rating Date                   | 7-7-2011        | 7-7-2011      | 7-7-2011        | 7-7-2011       | 7-21-2011      | 7-21-2011       | 7-21-2011     |
| Rating Type                   | CONTRO          | CONTRO        | CONTRO          | CONTRO         | CONTRO         | CONTRO          | CONTRO        |
| Rating Unit                   | %               | %             | %               | %              | %              | %               | %             |
| Number of Subsamples          | 1               | 1             | 1               | 1              | 1              | 1               | 1             |
| Crop Stage Majority           | V3              | V3            | V3              | V3             | R2             | R2              | R2            |
| Pest Stage Majority           | 6 IN            | 3 IN          | 8 IN            | 8 IN           | 12 IN          | 8-12 IN         | 24 IN         |
| Pest Density, Unit            | 4 YD2           | 12 YD2        | 8 YD2           | 40 YD2         | 30 YD2         | 3 YD2           | 2 YD2         |
| Assessed By                   | JR              | JR            | JR              | JR             | RH             | RH              | RH            |
| Days After First/Last Applic. | 34 34           | 34 34         | 34 34           | 34 34          | 48 48          | 48 48           | 48 48         |
| Trt-Eval Interval             | 34 DA-A         | 34 DA-A       | 34 DA-A         | 34 DA-A        | 48 DA-A        | 48 DA-A         | 48 DA-A       |
| Plant-Eval Interval           | 34 DP-1         | 34 DP-1       | 34 DP-1         | 34 DP-1        | 48 DP-1        | 48 DP-1         | 48 DP-1       |
| Days After Emergence          | 29 DE-          | 29 DE-        | 29 DE-          | 29 DE-         | 43 DE-         | 43 DE-          | 43 DE-        |
| ARM Action Codes              |                 |               |                 |                |                |                 |               |
| Number of Decimals            |                 |               |                 |                |                |                 |               |
| Trt Treatment                 | Rate            | Appl          |                 |                |                |                 |               |
| No. Name                      | Rate Unit       | Code          | 8               | 9              | 10             | 11              | 12            |
| 1 UNTREATED                   | 0.0 b           | 0.0 c         | 0.0 c           | 0.0 c          | 0.0 b          | 0.0 c           | 0.0 c         |
| 2 Zidua                       | 89 g ai/ha A    | 96.3 a        | 79.5 a          | 85.0 ab        | 92.0 a         | 55.0 a          | 92.5 a        |
| Optill                        | 95 g ai/ha A    |               |                 |                |                |                 | 65.0 a        |
| 3 Valor                       | 71.5 g ai/ha A  | 7.4 b         | 36.3 b          | 60.0 ab        | 47.5 b         | 6.3 b           | 53.8 b        |
| 4 Prefix                      | 1480 g ai/ha A  | 98.8 a        | 27.5 bc         | 82.0 ab        | 83.8 a         | 32.5 a          | 77.5 a        |
| 5 Zidua                       | 89 g ai/ha A    | 100.0 a       | 70.0 a          | 40.0 b         | 86.5 a         | 45.0 a          | 92.5 a        |
| Valor                         | 71.5 g ai/ha A  |               |                 |                |                |                 | 51.3 ab       |
| 6 Valor XLT                   | 113 g ai/ha A   | 95.0 a        | 78.3 a          | 97.5 a         | 90.0 a         | 42.5 a          | 90.0 a        |
| LSD (P=.05)                   | 9.70            | 29.24         | 35.84           | 8.37           | 21.01          | 21.63           | 26.78         |
| Standard Deviation            | 6.35            | 19.40         | 23.79           | 5.56           | 13.94          | 14.35           | 17.77         |
| CV                            | 9.59            | 39.94         | 39.16           | 8.34           | 46.15          | 21.2            | 45.37         |
| Bartlett's X2                 | 2.716           | 4.043         | 9.716           | 6.57           | 1.224          | 25.793          | 3.012         |
| P(Bartlett's X2)              | 0.437           | 0.40          | 0.045*          | 0.16           | 0.874          | 0.001*          | 0.556         |
| Replicate F                   | 0.295           | 0.820         | 0.581           | 2.887          | 0.177          | 0.490           | 1.187         |
| Replicate Prob(F)             | 0.8282          | 0.5028        | 0.6368          | 0.0704         | 0.9104         | 0.6942          | 0.3480        |
| Treatment F                   | 233.362         | 11.159        | 9.207           | 173.106        | 10.192         | 25.631          | 8.277         |
| Treatment Prob(F)             | 0.0001          | 0.0001        | 0.0004          | 0.0001         | 0.0002         | 0.0001          | 0.0006        |

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

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|                               |                 |             |             |              |              |             |
|-------------------------------|-----------------|-------------|-------------|--------------|--------------|-------------|
| Pest Type                     | W Weed          |             |             |              |              |             |
| Pest Code                     | XANST           |             |             |              |              |             |
| Pest Scientific Name          | Xanthium strum> |             |             |              |              |             |
| Pest Name                     | Common cockleb> |             |             |              |              |             |
| Crop Code                     | GLXMA           | GLXMA       | GLXMA       | GLXMA        | GLXMA        | GLXMA       |
| BBCH Scale                    | BSOY            | BSOY        | BSOY        | BSOY         | BSOY         | BSOY        |
| Crop Scientific Name          | Glycine max     | Glycine max | Glycine max | Glycine max  | Glycine max  | Glycine max |
| Crop Name                     | Soybean         | Soybean     | Soybean     | Soybean      | Soybean      | Soybean     |
| Crop Variety                  | AG2931          | AG2931      | AG2931      | AG2931       | AG2931       | AG2931      |
| Description                   |                 |             |             |              |              |             |
| Rating Date                   | 7-21-2011       | 10-25-2011  | 10-25-2011  | 10-25-2011   | 10-25-2011   | 10-25-2011  |
| Rating Type                   | CONTRO          | YIELD       | MOISTURE    | YIELD        | YIELD        | YIELD       |
| Rating Unit                   | %               | LB          | %           | BU           | KG           | KG          |
| Number of Subsamples          | 1               | 1           | 1           | 1            | 1            | 1           |
| Crop Stage Majority           | R2              |             |             |              |              |             |
| Pest Stage Majority           | 12-15 IN        |             |             |              |              |             |
| Pest Density, Unit            | 2.5 YD2         |             |             |              |              |             |
| Assessed By                   | RH              | PM          | PM          | PM           | PM           | PM          |
| Days After First/Last Applic. | 48 48           | 144 144     | 144 144     | 144 144      | 144 144      | 144 144     |
| Trt-Eval Interval             | 48 DA-A         | 144 DA-A    | 144 DA-A    | 144 DA-A     | 144 DA-A     | 144 DA-A    |
| Plant-Eval Interval           | 48 DP-1         | 144 DP-1    | 144 DP-1    | 144 DP-1     | 144 DP-1     | 144 DP-1    |
| Days After Emergence          | 43 DE-          | 139 DE      | 139 DE      | 139 DE       | 139 DE       | 139 DE      |
| ARM Action Codes              |                 |             |             | TY1          | TY2          | TY2         |
| Number of Decimals            |                 |             |             | 1            | 1            | 1           |
| Trt Treatment                 | Rate            | Appl        |             |              |              |             |
| No. Name                      | Rate Unit       | Code        | 15          | 16           | 17           | 18          |
| 1 UNTREATED                   | 0.0 b           |             | 7.6214798 a | 12.1079953 a | 22.1 a       | 1487.9 a    |
| 2 Zidua                       | 89 g ai/ha A    |             | 69.3 a      | 12.0402749 a | 12.8327087 a | 35.0 a      |
| Optill                        | 95 g ai/ha A    |             |             |              |              | 2355.4 a    |
| 3 Valor                       | 71.5 g ai/ha A  |             | 53.8 a      | 10.5494338 a | 12.7929033 a | 30.7 a      |
| 4 Prefix                      | 1480 g ai/ha A  |             | 72.5 a      | 12.2954629 a | 13.0918821 a | 35.7 a      |
| 5 Zidua                       | 89 g ai/ha A    |             | 32.5 ab     | 13.1819109 a | 12.3624547 a | 38.6 a      |
| Valor                         | 71.5 g ai/ha A  |             |             |              |              | 2593.1 a    |
| 6 Valor XLT                   | 113 g ai/ha A   |             | 82.5 a      | 11.2747070 a | 12.5433152 a | 32.9 a      |
| LSD (P=.05)                   | 35.12           |             | 4.08436816  | 1.78405184   | 11.74        | 789.67      |
| Standard Deviation            | 23.30           |             | 2.71054390  | 1.18396532   | 7.79         | 524.06      |
| CV                            | 45.03           |             | 24.29       | 9.38         | 23.98        | 23.98       |
| Bartlett's X2                 | 5.172           |             | 4.902       | 34.938       | 4.754        | 4.754       |
| P(Bartlett's X2)              | 0.27            |             | 0.428       | 0.001*       | 0.447        | 0.447       |
| Replicate F                   | 0.696           |             | 1.799       | 1.108        | 1.780        | 1.780       |
| Replicate Prob(F)             | 0.5688          |             | 0.1905      | 0.3769       | 0.1942       | 0.1942      |
| Treatment F                   | 6.975           |             | 2.075       | 0.361        | 2.162        | 2.162       |
| Treatment Prob(F)             | 0.0015          |             | 0.1255      | 0.8674       | 0.1136       | 0.1136      |

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

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## Evaluate efficacy of Zidua when applied preemergence in conventional tilled soybean

Trial ID: 11S-SEP-NTS-14      Protocol ID: 11S-SEP-NTS-14  
 Location: SEPAC              Study Director: Paul Marquardt  
 Project ID: 11S-SEP-NTS-14      Investigator: Dr. Bill Johnson  
 Sponsor Contact: Gery Welker

### Pest Type

W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop

### Pest Code

ERICA, Conyza canadensis, = US  
 AMBEL, Ambrosia artemisiifolia, = US  
 XANST, Xanthium strumarium, = US  
 GGGAN, Annual grasses, = US  
 IPOSS, Ipomoea sp., = US

### Crop Code

GLXMA, BSOY, Glycine max., = US

### Rating Type

PHYGEN = phytotoxicity - general / injury  
 CONTRO = control / burndown or knockdown  
 YIELD = yield

### Rating Unit

% = percent  
 LB = pound  
 BU = bushel  
 KG = kilogram

YD2 = per square yard

### Plant-Eval Interval

13 DP-1 = 1 GLXMA 6-3-2011  
 21 DP-1 = 1 GLXMA 6-3-2011  
 34 DP-1 = 1 GLXMA 6-3-2011  
 48 DP-1 = 1 GLXMA 6-3-2011  
 144 DP-1 = 1 GLXMA 6-3-2011

### ARM Action Codes

TY1 =  $2.904 * [16] * (100 - [17]) / 87$   
 TY2 =  $195.2984 * [16] * (100 - [17]) / 87$