

Purdue Weed Science

BAS842 in Enlist E3 Conventional Till Soybean

Trial ID:23-TPAC-Soy-03
 Location: Throckmorton-Purdue Ag Center Trial Year: 2023
 Study Director: Dr. Bill Johnson
 Sponsor Contact: Gery Welker

General Trial Information

Study Director: Dr. Bill Johnson **Title:** Professor
Investigator: Dr. Bill Johnson **Title:** Professor

Discipline: H herbicide
Status: F one-year/final

ARM Trial Created On: Jun-19-2023 **Meets All Objectives:** Y **Reliability:** GOOD good quality
Initiation Date: May-18-2023 **Planned Completion Date:** Oct-15-2023
Completion Date: Jul-13-2023

Trial Location

City: Lafayette **Country:** USA
State/Prov.: Indiana **County:** Tippecanoe
Postal Code: 47907

Latitude of LL Corner °: 40.2918 N
Longitude of LL Corner °: -86.90713 W

Regulations

Conducted Under GLP: No
Conducted Under GEP: No

Objectives:

Show the flexibility and performance of BAS842 in an E3, conventionally-tilled soybean system

Contacts

Role: STYDIR study director
Study Director: Dr. Bill Johnson **Title:** Professor
Organization: Purdue University
Address 1: 915 W. State Street
Country: USA **United States** **E-mail:** wgj@purdue.edu
City: West Lafayette **State/Prov:** IN
Role: INVEST investigator
Investigator: Dr. Bill Johnson **Title:** Professor
Organization: Purdue University
Address 1: 915 W. State Street
Country: USA **United States** **E-mail:** wgj@purdue.edu
City: West Lafayette **State/Prov:** IN
Role: SPONSR sponsor
Sponsor: Gery Welker
Organization: BASF
Role: COOPER cooperater
Cooperator: Jay Young **Title:** Superintendent
Organization: Purdue University
Address 1: 8343 US 231 S **Phone No.:** 765-538-3422
Country: USA **United States** **E-mail:** jayyoung@purdue.edu
City: Lafayette **State/Prov:** IN

Crop Description

Crop 1: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Entry Date: Jun-16-2023 **Stage Scale:** BBCH
Variety: Stine 29EB62
Attributes: Glyphosate-R, Glufosinate-R, and 2,4-D-R
Planting Date: May-18-2023 **Planting Rate:** 140000 S/A
Depth: 1.5 IN
Rows per Plot: 8 **Planting Method:** PLANTD planted
Row Spacing: 15 IN **Planting Equipment:** PP plot planter
Seed Bed: FINE fine
Soil Moisture: NORMAL normal, adequate
Emergence Date: May-31-2023

Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida **Entry Date:** Jun-16-2023
Common Name: Giant ragweed **Stage Scale:** BBCH
Attributes: ALS-R

Site and Design

Treated Plot Width: 10 FT
 Treated Plot Length: 30 FT
 Treated Plot Area: 300.0 FT²
 Replications: 4

Treatments: 12 Plots: 48

Site Type: FIELD field
 Experimental Unit: 1 PLOT plot
 Tillage Type: CONTIL conventional-till
 Study Design: RACOB� Randomized Complete Block (RCB)

Trial Initiation Comments:

The trial area was weed-free at soybean planting.
 Dry weather and soil crusting after planting led to poor soybean emergence.

Soil Description

Description Name: TPAC - Field 4 BE
 % Sand: 21 % OM: 3.4 Texture: SIL silt loam
 % Silt: 54 Soil Name: Toronto-Millbrook Complex
 % Clay: 25 Fert. Level: G good
 pH: 5.8 CEC: 13.5
 Soil Drainage: G good

Weather Conditions

Overall Moisture Conditions: DRY dry Irrigation Type: RAIN rain
 Weather Station Name: TPAC MESONET Distance: 0.5 MI

| No. | Date | Moisture Total | Unit | Min Temp | Max Temp | Avg Temp | Temp Unit | Max Wind | Avg Wind | Unit | Avg Soil Temp | Unit |
|-----|-------------|----------------|------|----------|----------|----------|-----------|----------|----------|------|---------------|------|
| 1. | May-15-2023 | 0.04 | IN | 55 | 75.6 | 63.1 | F | 15 | 3.6 | MPH | 64.2 | F |
| 2. | May-16-2023 | 0.01 | IN | 55.8 | 73.8 | 62.8 | F | 16.8 | 3.1 | MPH | 64.2 | F |
| 3. | May-17-2023 | 0 | IN | 50.7 | 72.7 | 61.3 | F | 17.9 | 5.4 | MPH | 63.9 | F |
| 4. | May-18-2023 | 0 | IN | 45.3 | 77.4 | 61.9 | F | 15 | 2.9 | MPH | 63.1 | F |
| 5. | May-19-2023 | 0.59 | IN | 55.8 | 83.1 | 65.8 | F | 30.4 | 7.6 | MPH | 63.3 | F |
| 6. | May-20-2023 | 0 | IN | 48.7 | 67.1 | 58.1 | F | 19 | 3.8 | MPH | 63.7 | F |
| 7. | May-21-2023 | 0 | IN | 45.9 | 81.1 | 64.2 | F | 14.3 | 1.1 | MPH | 63.9 | F |
| 8. | May-22-2023 | 0 | IN | 52.3 | 84 | 69.6 | F | 11.9 | 0.9 | MPH | 65.7 | F |
| 9. | May-23-2023 | 0 | IN | 55.8 | 86.2 | 72.3 | F | 15.4 | 1.3 | MPH | 67.1 | F |
| 10. | May-24-2023 | 0 | IN | 55.4 | 86.2 | 72.9 | F | 22.6 | 5.4 | MPH | 67.6 | F |
| 11. | May-25-2023 | 0 | IN | 48.9 | 71.6 | 59.7 | F | 23.3 | 9.2 | MPH | 65.1 | F |
| 12. | May-26-2023 | 0 | IN | 46.4 | 77 | 62.4 | F | 22.6 | 4.5 | MPH | 64.4 | F |
| 13. | May-27-2023 | 0 | IN | 48 | 78.4 | 65.8 | F | 7.2 | 0 | MPH | 64.2 | F |
| 14. | May-28-2023 | 0 | IN | 57.4 | 83.1 | 71.1 | F | 4.3 | 0 | MPH | 66.4 | F |
| 15. | Aug-29-2023 | 0 | IN | 57.7 | 88.7 | 74.8 | F | 6.5 | 0 | MPH | 69.1 | F |
| 16. | May-30-2023 | 0 | IN | 60.6 | 91 | 77.2 | F | 15.4 | 0.7 | MPH | 69.8 | F |
| 17. | May-31-2023 | 0 | IN | 66.4 | 90.7 | 78.3 | F | 20.4 | 3.6 | MPH | 71.6 | F |
| 18. | Jun-1-2023 | 0 | IN | 63.5 | 92.1 | 78.8 | F | 17.2 | 2.5 | MPH | 73.6 | F |
| 19. | Jun-2-2023 | 0 | IN | 61.9 | 92.3 | 79.3 | F | 13.2 | 0.7 | MPH | 74.5 | F |
| 20. | Jun-3-2023 | 0 | IN | 65.3 | 93.7 | 80.2 | F | 16.1 | 1.8 | MPH | 75.4 | F |
| 21. | Jun-4-2023 | 0 | IN | 64 | 84.4 | 74.3 | F | 17.9 | 6.5 | MPH | 75.4 | F |
| 22. | Jun-5-2023 | 0 | IN | 54.5 | 83.1 | 69.6 | F | 13.2 | 0 | MPH | 71.8 | F |
| 23. | Jun-6-2023 | 0 | IN | 54.3 | 88.3 | 71.1 | F | 7.2 | 0 | MPH | 71.6 | F |
| 24. | Jun-7-2023 | 0 | IN | 54.3 | 80.1 | 68.5 | F | 16.1 | 1.3 | MPH | 73.4 | F |
| 25. | Jun-8-2023 | 0 | IN | 46.9 | 80.2 | 64.9 | F | 1.8 | 0 | MPH | 72 | F |
| 26. | Jun-9-2023 | 0 | IN | 46.9 | 82 | 67.1 | F | 7.2 | 0 | MPH | 72.1 | F |
| 27. | Jun-10-2023 | 0 | IN | 55.2 | 86.5 | 72.7 | F | 13.2 | 0 | MPH | 74.1 | F |
| 28. | Jun-11-2023 | 0.38 | IN | 55.2 | 69.4 | 63.5 | F | 22.6 | 4 | MPH | 70.3 | F |
| 29. | Jun-12-2023 | 0 | IN | 54 | 69.1 | 62.8 | F | 25.1 | 5.6 | MPH | 70.5 | F |
| 30. | Jun-13-2023 | 0.05 | IN | 55.6 | 70.7 | 62.4 | F | 18.8 | 7.8 | MPH | 65.3 | F |
| 31. | Jun-14-2023 | 0 | IN | 59.4 | 78.8 | 68.4 | F | 14.1 | 2.9 | MPH | 68.9 | F |
| 32. | Jun-15-2023 | 0 | IN | 57.7 | 87.1 | 71.4 | F | 19.9 | 7.2 | MPH | 70.9 | F |
| 33. | Jun-16-2023 | 0 | IN | 51.3 | 75.6 | 62.6 | F | 14.1 | 4.3 | MPH | 69.3 | F |
| 34. | Jun-17-2023 | 0 | IN | 51.4 | 84.2 | 68.7 | F | 12.1 | 2.5 | MPH | 70.9 | F |
| 35. | Jun-18-2023 | 0 | IN | 57.9 | 86.4 | 72.7 | F | 18.1 | 4.5 | MPH | 73.4 | F |
| 36. | Jun-19-2023 | 0 | IN | 69.1 | 86.5 | 79.9 | F | 22.4 | 6.9 | MPH | 76.8 | F |
| 37. | Jun-20-2023 | 0 | IN | 65.5 | 89.4 | 76.1 | F | 27.1 | 8.9 | MPH | 76.8 | F |
| 38. | Jun-21-2023 | 0 | IN | 64.8 | 88.7 | 76.6 | F | 23.9 | 7.4 | MPH | 78.1 | F |
| 39. | Jun-22-2023 | 0 | IN | 63.5 | 83.7 | 73 | F | 21.5 | 5.4 | MPH | 77.9 | F |
| 40. | Jun-23-2023 | 0 | IN | 66.6 | 85.8 | 74.3 | F | 11.2 | 2.5 | MPH | 77.2 | F |
| 41. | Jun-24-2023 | 0 | IN | 60.6 | 91.6 | 77.5 | F | 15 | 3.6 | MPH | 77.7 | F |

| | | | | | | | | | | | | |
|-----|-------------|------|----|------|------|------|---|------|------|-----|------|---|
| 42. | Jun-25-2023 | 0.93 | IN | 67.8 | 88.9 | 77.9 | F | 36 | 10.1 | MPH | 76.8 | F |
| 43. | Jun-26-2023 | 0 | IN | 66 | 77 | 71.1 | F | 26.6 | 8.9 | MPH | 72.9 | F |
| 44. | Jun-27-2023 | 0 | IN | 60.4 | 76.8 | 67.5 | F | 14.5 | 4 | MPH | 70.9 | F |
| 45. | Jun-28-2023 | 0 | IN | 53.8 | 82.8 | 68.5 | F | 17 | 2.5 | MPH | 70.9 | F |
| 46. | Jun-29-2023 | 0.38 | IN | 64.9 | 84.9 | 70.9 | F | 44.7 | 7.4 | MPH | 71.8 | F |
| 47. | Jun-30-2023 | 0 | IN | 62.8 | 86 | 75 | F | 21 | 3.6 | MPH | 73.4 | F |
| 48. | Jul-1-2023 | 0.45 | IN | 69.4 | 87.6 | 75.7 | F | 31.3 | 5.1 | MPH | 76.1 | F |
| 49. | Jul-2-2023 | 0.65 | IN | 66 | 83.3 | 73.6 | F | 28.6 | 6.9 | MPH | 75.7 | F |
| 50. | Jul-3-2023 | 0 | IN | 65.8 | 87.8 | 75 | F | 14.5 | 4.7 | MPH | 76.3 | F |
| 51. | Jul-4-2023 | 0 | IN | 65.1 | 90.9 | 77.9 | F | 14.1 | 2.9 | MPH | 78.1 | F |
| 52. | Jul-5-2023 | 0.01 | IN | 68.4 | 89.6 | 78.6 | F | 25.1 | 5.1 | MPH | 79.3 | F |
| 53. | Jul-6-2023 | 0.01 | IN | 68.4 | 84.2 | 74.8 | F | 16.6 | 3.8 | MPH | 78.6 | F |
| 54. | Jul-7-2023 | 0 | IN | 60.6 | 84 | 73.4 | F | 11.4 | 2.7 | MPH | 77.7 | F |
| 55. | Jul-8-2023 | 0.75 | IN | 61.5 | 76.3 | 68.5 | F | 17.7 | 3.1 | MPH | 75.6 | F |
| 56. | Jul-9-2023 | 0 | IN | 57 | 82.2 | 69.4 | F | 11.6 | 2.2 | MPH | 74.5 | F |
| 57. | Jul-10-2023 | 0 | IN | 58.8 | 82.2 | 71.6 | F | 12.5 | 4 | MPH | 75.4 | F |
| 58. | Jul-11-2023 | 0 | IN | 62.6 | 85.1 | 74.5 | F | 21.3 | 7.2 | MPH | 75.6 | F |
| 59. | Jul-12-2023 | 0 | IN | 69.1 | 86.4 | 76.8 | F | 23 | 6.3 | MPH | 76.3 | F |
| 60. | Jul-13-2023 | 0 | IN | 64 | 80 | 71 | F | 10.1 | 2.9 | MPH | 75.4 | F |

Application Description

| | A | B | C | D |
|---------------------------------|-------------|-------------|-------------|-------------|
| Date | May-18-2023 | Jun-8-2023 | Jun-8-2023 | Jun-28-2023 |
| Start Time | 7:39 PM | 10:42 AM | 10:12 AM | 5:15 PM |
| Stop Time | 8:07 PM | 10:45 AM | 10:21 AM | 5:25 PM |
| Interval to Prev. Appl. | | 21 MINS | 21 DAYS | 20 DAYS |
| Method | SPRAY | SPRAY | SPRAY | SPRAY |
| Timing | PRE | V1/V2 SOY | V1/V2 SOY | V3-V5 |
| Placement | BROSOI | BROFOL | BROFOL | BROFOL |
| Applied By | M. ZIMMER | M. ZIMMER | M. ZIMMER | L. MAIA |
| Entry Date | Jun-16-2023 | Jun-16-2023 | Jun-16-2023 | Mar-13-2024 |
| Air Temperature Start, Stop | 74, 74 F | 68, 68 F | 65, 65 F | 80, 80 F |
| % Relative Humidity Start, Stop | 23, 23 | 33, 33 | 38, 38 | 55, 55 |
| Wind Velocity+Dir. Start | 3 MPH, S | 3 MPH, E | 3.1 MPH, E | 1 MPH, SE |
| Wind Velocity+Dir. Stop | 3 MPH, S | 3 MPH, E | 3.3 MPH, E | 1 MPH, SE |
| Wind Velocity+Dir. Max | 4 MPH, S | 5.9 MPH, E | 5.2 MPH, E | 1 MPH, SE |
| Wet Leaves (Y/N) | N, no | N, no | N, no | N, no |
| Soil Temperature | 77 F | 70 F | 69 F | 82 F |
| Soil Moisture | ADEQUATE | DRY | DRY | NORMAL |
| % Cloud Cover | 10 | 0 | 0 | 0 |

Crop Stage At Each Application

| | A | B | C | D |
|-------------------------|-------------|-------------|-------------|-------------|
| Crop 1 Code, BBCH Scale | GLXMA, BSOY | GLXMA, BSOY | GLXMA, BSOY | GLXMA, BSOY |
| Days after Emergence | -13 | 8 | 8 | 28 |
| Stage Majority, Percent | 0, - | V1, - | V1, - | 15, - |
| Stage Minimum, Percent | 0, - | VC, - | VC, - | 15, - |
| Stage Maximum, Percent | 0, - | V1, - | V1, - | 16, - |
| Height Average | 0 IN | 2.5 IN | 2.5 IN | 8 IN |
| Height Minimum, Maximum | 0, 0 | 2, 3 | 2, 3 | 7, 9 |

Pest Stage At Each Application

| | A | B | C | D |
|--------------------------|----------------|----------------|----------------|----------------|
| Pest 1 Code, Type, Scale | AMBTR, W, BBCH | AMBTR, W, BBCH | AMBTR, W, BBCH | AMBTR, W, BBCH |
| Height Average | 0 IN | 2 IN | 2 IN | 14 IN |
| Height Minimum, Maximum | 0, 0 | 1, 3 | 1, 3 | 4, 18 |
| Density Average | 0 FT2 | 6 FT2 | 6 FT2 | 4 FT2 |
| Density Minimum, Maximum | 0, 0 | 2, 10 | 2, 10 | 2, 6 |

| Application Equipment | | | | |
|------------------------|---------------|---------------|---------------|---------------|
| | A | B | C | D |
| Equipment Name | CO2 BACKPACK | CO2 BACKPACK | CO2 BACKPACK | CO2 BACKPACK |
| Equipment Type | BACSPR | BACSPR | BACSPR | BACSPR |
| Operation Pressure | 27 PSI | 27 PSI | 28 PSI | 28 PSI |
| Nozzle Model | AIXR | AIXR | TT | TT |
| Nozzle Type | FLAFAI | FLAFAI | TEEJTU | TEEJTU |
| Nozzle TradeName | TEEJET | TEEJET | TEEJET | TEEJET |
| Nozzle Tip Size, Color | 110015, GREEN | 110015, GREEN | 11002, YELLOW | 11002, YELLOW |
| Nozzle Spacing | 15.0 IN | 15.0 IN | 15.0 IN | 15.0 IN |
| Nozzles/Row | 8.0 | 8.0 | 8.0 | 8.0 |
| Boom Length | 10.0 FT | 10.0 FT | 10.0 FT | 10.0 FT |
| Ground Speed | 3 MPH | 3 MPH | 3 MPH | 3 MPH |
| Carrier | WATER | WATER | WATER | WATER |
| Application Amount | 15 GAL/AC | 15 GAL/AC | 20 GAL/AC | 20 GAL/AC |
| Mix Overage | 236.0 mL | 236.0 mL | 236.0 mL | 236.0 mL |
| Mix Size | 1800.0 mL | 1800.0 mL | 2322.0 mL | 2322.0 mL |
| Propellant | COMCO2 | COMCO2 | COMCO2 | COMCO2 |

| Notes | | | | |
|-------|---------|-------------|------------------|---|
| No. | Context | Date | By | Notes |
| 1. | STATUS | Mar-16-2023 | Dr. Bill Johnson | Automatically added by ARM: Trial Status updated to 'S' during trial creation. |
| 2. | STATUS | Jun-16-2023 | Dr. Bryan Young | Automatically added by ARM: Status changed to: E: changed by (EINYOB). |
| 3. | STATUS | Jun-16-2023 | Dr. Bryan Young | Automatically added by ARM: Trial Status updated to 'E' when Initiation Date entered. |
| 4. | STATUS | Mar-13-2024 | Dr. Bill Johnson | Automatically added by ARM: Status changed to: F: changed by (EINJOW). |

Purdue Weed Science

BAS842 in Enlist E3 Conventional Till Soybean

Trial ID: 23-TPAC-Soy-03
 Location: Throckmorton-Purdue Ag Center Trial Year: 2023
 Study Director: Dr. Bill Johnson
 Sponsor Contact: Gery Welker

| Assessed By | Zimmer, Marcelo | |
|-------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------|
| Rating Date | Jun-1-2023 | Jun-8-2023 | Jun-15-2023 | Jun-30-2023 | Jul-13-2023 | |
| Part Rated | PLOT, C | |
| Rating Type | PHYGEN | PHYGEN | PHYGEN | PHYGEN | PHYGEN | |
| Rating Unit | % | % | % | % | % | |
| Rating Min/Max/Interval | 0, 100, - | 0, 100, - | 0, 100, - | 0, 100, - | 0, 100, - | |
| Sample Size | 1 PLOT | |
| Crop Name | Soybean | Soybean | Soybean | Soybean | Soybean | |
| Crop Variety | Stine 29 EB62 | |
| Pest Scientific Name | | | | | | |
| Pest Name | | | | | | |
| Rating Timing | 14 DAP | 21 DAP | 28 DAP | 42 DAP | 56 DAP | |
| Trt Treatment | 1* | 3* | 5* | 7* | 9* | |
| No. Name | | | | | | |
| Rate | | | | | | |
| Appl | | | | | | |
| Rate Unit | | | | | | |
| Code | | | | | | |
| 1 BAS842 | A | 0.0 a | 0.0 a | 0.0 d | 0.0 b | 0.0 a |
| 2 ENLIST ONE | 32 fl oz/a A | 0.0 a | 0.0 a | 0.0 d | 0.0 b | 0.0 a |
| ZIDUA SC | 3.25 fl oz/a A | | | | | |
| 3 ZIDUA SC | 3.25 fl oz/a A | 0.0 a | 0.0 a | 0.0 d | 0.0 b | 0.0 a |
| 4 ENLIST ONE | 32 fl oz/a A | 0.0 a | 0.0 a | 0.0 d | 0.0 b | 0.0 a |
| BAS842 | A | | | | | |
| 5 VERDICT | 5 fl oz/a A | 0.0 a | 0.0 a | 0.0 d | 0.0 b | 0.0 a |
| BAS842 | A | | | | | |
| 6 TRICOR | 4 oz/a A | 0.0 a | 0.0 a | 0.0 d | 0.0 b | 0.0 a |
| BAS842 | A | | | | | |
| 7 ENLIST ONE | 32 fl oz/a B | 0.0 a | 0.0 a | 3.0 c | 0.0 b | 0.0 a |
| BAS842 | B | | | | | |
| ROUNDUP PMAX 3 | 30 fl oz/a B | | | | | |
| AMSOL | 1.5 lb ai/a B | | | | | |
| 8 LIBERTY | 36 fl oz/a C | 0.0 a | 0.0 a | 3.0 c | 0.0 b | 0.0 a |
| AMSOL | 1.5 lb ai/a C | | | | | |
| BAS842 | C | | | | | |
| 9 PREFIX | 32 fl oz/a C | 0.0 a | 0.0 a | 26.3 a | 2.3 a | 0.0 a |
| PRIME OIL | 1 % v/v C | | | | | |
| LIBERTY | 36 fl oz/a C | | | | | |
| AMSOL | 1.5 lb ai/a C | | | | | |
| 10 ANTHEM MAXX | 3.16 fl oz/a C | 0.0 a | 0.0 a | 9.8 b | 0.8 b | 0.0 a |
| LIBERTY | 36 fl oz/a C | | | | | |
| AMSOL | 1.5 lb ai/a C | | | | | |
| 11 LIBERTY | 36 fl oz/a C | 0.0 a | 0.0 a | 1.5 cd | 0.0 b | 0.0 a |
| AMSOL | 1.5 lb ai/a C | | | | | |
| 12 BAS842 | A | 0.0 a | 0.0 a | 0.0 d | 0.0 b | 0.0 a |
| LIBERTY | 36 fl oz/a D | | | | | |
| OUTLOOK | 12 fl oz/a D | | | | | |
| AMSOL | 1.5 lb ai/a D | | | | | |
| LSD P=.05 | | . | . | 2.65 | 0.87 | . |
| Standard Deviation | | 0.00 | 0.00 | 1.84 | 0.60 | 0.00 |
| CV | | 0.0 | 0.0 | 50.76 | 241.21 | 0.0 |
| Levene's Prob(F) | | . | . | 0.005* | 0.592 | . |
| P(Shapiro-Wilk)^ | | . | . | 0.0* | 0.0* | . |
| P(Skewness)^ | | . | . | 0.5758 | 1.0 | . |
| P(Kurtosis)^ | | . | . | 0.0* | 0.0* | . |
| Replicate F | | 0.000 | 0.000 | 0.271 | 1.375 | 0.000 |
| Replicate Prob(F) | | 1.0000 | 1.0000 | 0.8461 | 0.2675 | 1.0000 |
| Treatment F | | 0.000 | 0.000 | 69.443 | 4.875 | 0.000 |
| Treatment Prob(F) | | 1.0000 | 1.0000 | 0.0001 | 0.0002 | 1.0000 |

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,3,9 because error mean square = 0.

^Calculated from residual.

| Assessed By | Zimmer, Marcelo | Zimmer, Marcelo | Zimmer, Marcelo | Zimmer, Marcelo | Zimmer, Marcelo | | |
|-------------------------|---|--|------------------|------------------|------------------|----------|---------|
| Rating Date | Jun-1-2023 | Jun-8-2023 | Jun-15-2023 | Jun-30-2023 | Jul-13-2023 | | |
| Part Rated | PLOT, C | PLOT, C | PLOT, C | PLOT, C | PLOT, C | | |
| Rating Type | CONTRO | CONTRO | CONTRO | CONTRO | CONTRO | | |
| Rating Unit | % | % | % | % | % | | |
| Rating Min/Max/Interval | 0, 100, - | 0, 100, - | 0, 100, - | 0, 100, - | 0, 100, - | | |
| Sample Size | 1 PLOT | 1 PLOT | 1 PLOT | 1 PLOT | 1 PLOT | | |
| Crop Name | | | | | | | |
| Crop Variety | | | | | | | |
| Pest Scientific Name | Ambrosia trifida | Ambrosia trifida | Ambrosia trifida | Ambrosia trifida | Ambrosia trifida | | |
| Pest Name | Giant ragweed | Giant ragweed | Giant ragweed | Giant ragweed | Giant ragweed | | |
| Rating Timing | 14 DAP | 21 DAP | 28 DAP | 42 DAP | 56 DAP | | |
| Trt Treatment | Rate | Appl | 2* | 4* | 6* | 8* | 10* |
| No. Name | Rate Unit | Code | | | | | |
| 1 | BAS842 | A | 53.8 b | 62.5 b | 65.0 bcd | 52.5 cde | 30.0 cd |
| 2 | ENLIST ONE ZIDUA SC | 32 fl oz/a A 3.25 fl oz/a A | 87.5 a | 86.3 a | 81.3 a-d | 43.8 de | 22.5 d |
| 3 | ZIDUA SC | 3.25 fl oz/a A | 7.5 c | 7.5 c | 32.5 e | 20.0 f | 5.0 d |
| 4 | ENLIST ONE BAS842 | 32 fl oz/a A A | 86.3 a | 85.0 a | 82.8 abc | 67.3 cd | 53.3 bc |
| 5 | VERDICT BAS842 | 5 fl oz/a A A | 87.5 a | 87.5 a | 85.0 ab | 72.5 bc | 58.8 b |
| 6 | TRICOR BAS842 | 4 oz/a A A | 61.3 b | 63.8 b | 62.5 cd | 38.8 ef | 21.3 d |
| 7 | ENLIST ONE BAS842 ROUNDUP PMAX 3 AMSOL | 32 fl oz/a B B 30 fl oz/a B 1.5 lb ai/a B | 0.0 c | 0.0 c | 98.0 a | 98.5 a | 97.3 a |
| 8 | LIBERTY AMSOL BAS842 | 36 fl oz/a C 1.5 lb ai/a C C | 0.0 c | 0.0 c | 97.3 a | 97.0 a | 93.8 a |
| 9 | PREFIX PRIME OIL LIBERTY AMSOL | 32 fl oz/a C 1 % v/v C 36 fl oz/a C 1.5 lb ai/a C | 0.0 c | 0.0 c | 97.0 a | 96.0 ab | 93.3 a |
| 10 | ANTHEM MAXX LIBERTY AMSOL | 3.16 fl oz/a C 36 fl oz/a C 1.5 lb ai/a C | 0.0 c | 0.0 c | 95.0 a | 96.0 ab | 92.0 a |
| 11 | LIBERTY AMSOL | 36 fl oz/a C 1.5 lb ai/a C | 0.0 c | 0.0 c | 95.0 a | 93.5 ab | 87.0 a |
| 12 | BAS842 LIBERTY OUTLOOK AMSOL | A 36 fl oz/a D 12 fl oz/a D 1.5 lb ai/a D | 52.5 b | 58.8 b | 60.0 d | 53.8 cde | 93.3 a |
| LSD P=.05 | | | 16.60 | 16.24 | 21.43 | 23.51 | 25.29 |
| Standard Deviation | | | 11.54 | 11.29 | 14.90 | 16.34 | 17.58 |
| CV | | | 31.73 | 30.02 | 18.8 | 23.64 | 28.23 |
| Levene's Prob(F) | | | 0.00* | 0.007* | 0.135 | 0.134 | 0.236 |
| P(Shapiro-Wilk)^ | | | 0.2209 | 0.0212* | 0.0013* | 0.1413 | 0.0182* |
| P(Skewness)^ | | | 0.8884 | 0.5268 | 0.0231* | 0.4169 | 0.237 |
| P(Kurtosis)^ | | | 0.1468 | 0.1583 | 0.0046* | 0.4566 | 0.0402* |
| Replicate F | | | 1.663 | 0.724 | 0.436 | 0.379 | 0.267 |
| Replicate Prob(F) | | | 0.1939 | 0.5452 | 0.7287 | 0.7684 | 0.8485 |
| Treatment F | | | 44.657 | 48.031 | 7.495 | 11.144 | 15.666 |
| Treatment Prob(F) | | | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
* Adjusted means
Could not calculate LSD (% mean diff) for columns 1,3,9 because error mean square = 0.
^Calculated from residual.

Purdue Weed Science

BAS842 in Enlist E3 Conventional Till Soybean

Trial ID: 23-TPAC-Soy-03
Location: Throckmorton-Purdue Ag Center Trial Year: 2023
Study Director: Dr. Bill Johnson
Sponsor Contact: Gery Welker

Assessed By

Zimmer, Marcelo = Marcelo Zimmer

Part Rated

PLOT = plot

C = Crop is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit

%, 0, 100, = percent

PLOT = total plot