

Purdue Weed Science

Soybean Herbicide Programs for DuPont & DOW

Trial ID: 17S-TPAC-SOY-35 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-35 Investigator: Dr. Bill Johnson
 Project ID: Soybean Showcase Study Director: Dustin Johnson
 Sponsor Contact:

General Trial Information

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

Discipline: H herbicide
Trial Status: E established
Initiation Date: May-17-2017

Trial Location

City: Lafayette **Country:** USA United States
State/Prov.: Indiana
Postal Code: 47909

Latitude of LL Corner °: 40.29176 N
Longitude of LL Corner °: 86.90556 W

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Study Director: Dustin Johnson **Title:** Research Associate
Organization: Purdue University
Address: 915 W. State Street
City+State/Prov: West Lafayette, IN
Postal Code: 47907 **E-mail:** john1357@purdue.edu
Country: USA United States

Investigator: Dr. Bill Johnson **Title:** Professor
Organization: Purdue University
Address: 915 W. State Street
City+State/Prov: West Lafayette, IN
Postal Code: 47907 **E-mail:** wgj@purdue.edu
Country: USA United States

Cooperator/Landowner

Cooperator: Jay Young **Role:** Superintendent
Organization: Purdue University
Address 1: 8343 US 231 S
City: Lafayette **Phone No.:** 765-538-3422
State/Prov: IN **Fax No.:** 765-538-3423
Postal Code: 47909
Country: USA United States **E-mail:** jayyoung@purdue.edu

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: XTEND AG30X6
Description: DICAMBA/RR

Planting Rate, Unit: 155000 S/A
Depth, Unit: 1.25 IN
Row Spacing, Unit: 15 IN
Soil Temperature, Unit: 69 F
Soil Moisture: SLIDRY slightly dry

Planting Date: May-17-2017
Planting Method: PLANTD planted
Planting Equipment: PP Plot Planter
Emergence Date: May-27-2017

Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed

Site and Design

Treated Plot Width: 10 FT
Treated Plot Length: 30 FT
Treated Plot Area: 300 FT2 **Treatments:** 16
Replications: 4

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

Soil Description

Description Name: TPAC -Field 4A
% OM: 3.1 **Texture:** SIL silt loam
pH: 6 **Soil Name:** Toronto-Millbrook
CEC: 11.1

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Application Description

| | A | B |
|--------------------------------|-------------|------------|
| Application Date: | May-18-2017 | Jun-6-2017 |
| Appl. Start Time: | 6:14 PM | 11:10 AM |
| Appl. Stop Time: | 6:41 PM | 12:00 PM |
| Application Method: | SPRAY | SPRAY |
| Application Timing: | PREPLA | POSPOS |
| Application Placement: | BROADC | BROADC |
| Applied By: | T. CAMPBELL | J. HAARMAN |
| Air Temperature, Unit: | 86 F | 65 F |
| % Relative Humidity: | 45 | 63 |
| Wind Velocity, Unit: | 14 MPH | 10 MPH |
| Wind Direction: | SW | ENE |
| Dew Presence (Y/N): | N no | N no |
| Soil Temperature, Unit: | 79 F | 71 F |
| Soil Moisture: | DRY | DRY |
| % Cloud Cover: | 40 | 10 |

Crop Stage At Each Application

| | A | B |
|---------------------------------|------------|------------|
| Crop 1 Code, BBCH Scale: | GLXMA BSOY | GLXMA BSOY |
| Stage Scale Used: | | BBCH |
| Stage Majority, Percent: | | 11 |
| Stage Minimum, Percent: | | 11 |
| Stage Maximum, Percent: | | 12 |
| Height, Unit: | | 1 IN |
| Height Minimum, Maximum: | | 0.5 2 |

Pest Stage At Each Application

| | A | B |
|----------------------------------|---------|---------|
| Pest 1 Code, Type, Scale: | AMBTR W | AMBTR W |
| Stage Majority, Percent: | | 16 |
| Stage Minimum, Percent: | | 10 |
| Stage Maximum, Percent: | | 19 |
| Height, Unit: | | 4 IN |
| Height Minimum, Maximum: | | 0.5 11 |
| Density, Unit: | | 10 FT2 |

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Application Equipment

| | A | B |
|----------------------------------|---------------|---------------|
| Appl. Equipment: | CO2 BACKPACK | CO2 BACKPACK |
| Equipment Type: | BACSPR | BACSPR |
| Operation Pressure, Unit: | 29 PSI | 29 PSI |
| Nozzle Type: | TTI | TTI |
| Nozzle Size: | TTI110015 | 110015 |
| Nozzle Spacing, Unit: | 15 IN | 15 IN |
| Nozzles/Row: | 8 | 8 |
| Boom Length, Unit: | 10 FT | 10 FT |
| Boom Height, Unit: | 15 IN | 17 IN |
| Ground Speed, Unit: | 3 MPH | 3 MPH |
| Carrier: | WATER | WATER |
| Spray Volume, Unit: | 15 GAL/AC | 15 GAL/AC |
| Mix Size, Unit: | 1.8 liters | 1.8 liters |
| Propellant: | COMCO2 | COMCO2 |

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Reps: 4 Plots: 10 by 30 feet
 Spray vol: 15 GAL/AC Mix Size: 1.8 liters (1.5642 liters calculated mix size)

| Trt No. | Treatment Name | Form Conc | Form Unit | Form Type | Rate | Appl Unit | Appl Code | Amt to Measure | Rep 1 | Rep 2 | Rep 3 | Rep 4 |
|---------|-------------------|-------------|-----------|-----------|-----------|-----------|-----------|----------------|-------|-------|-------|-------|
| 1 | UNTREATED CHECK | | | | | | | | 101 | 305 | 506 | 705 |
| 2 | CANOPY | 75 % | | WG | 3.5 oz/a | | A | 3.145 g/mx | 102 | 304 | 505 | 806 |
| | ABUNDIT EDGE | 4.5 LB/GAL | | SL | 1 qt/a | | B | 30.0 ml/mx | | | | |
| | N-PAK AMS | 3.4 LBA/GAL | | L | 2.5 % v/v | | B | 45.0 ml/mx | | | | |
| 3 | TRIVENGE @ 8 OZ/A | | | | | | | | 103 | 307 | 503 | 807 |
| | CLASSIC | 25 % | | WG | 1.28 oz/a | | A | 1.15 g/mx | | | | |
| | TRICOR DF | 75 % | | DF | 4.75 oz/a | | A | 4.269 g/mx | | | | |
| | VALOR SX | 51 % | | WG | 2 oz/a | | A | 1.797 g/mx | | | | |
| | ABUNDIT EDGE | 4.5 LB/GAL | | SL | 1 qt/a | | B | 30.0 ml/mx | | | | |
| | N-PAK AMS | 3.4 LBA/GAL | | L | 2.5 % v/v | | B | 45.0 ml/mx | | | | |
| 4 | CANOPY | 75 % | | WG | 3.5 oz/a | | A | 3.145 g/mx | 104 | 303 | 604 | 808 |
| | ABUNDIT EDGE | 4.5 LB/GAL | | SL | 1 qt/a | | B | 30.0 ml/mx | | | | |
| | CLASSIC | 25 % | | WG | 0.5 oz/a | | B | 0.4493 g/mx | | | | |
| | N-PAK AMS | 3.4 LBA/GAL | | L | 2.5 % v/v | | B | 45.0 ml/mx | | | | |
| 5 | ENVIVE @ 3.5 OZ/A | | | | | | | | 105 | 403 | 601 | 702 |
| | VALOR SX | 51 % | | WG | 2 oz/a | | A | 1.797 g/mx | | | | |
| | CLASSIC | 25 % | | WG | 1.28 oz/a | | A | 1.15 g/mx | | | | |
| | HARMONY SG | 50 % | | SG | 0.2 oz/a | | A | 0.1797 g/mx | | | | |
| | ABUNDIT EDGE | 4.5 LB/GAL | | SL | 1 qt/a | | B | 30.0 ml/mx | | | | |
| | N-PAK AMS | 3.4 LBA/GAL | | L | 2.5 % v/v | | B | 45.0 ml/mx | | | | |
| 6 | CANOPY | 75 % | | WG | 3.5 oz/a | | A | 3.145 g/mx | 106 | 301 | 603 | 701 |
| | CINCH | 7.64 LB/GAL | | EC | 1 pt/a | | A | 15.0 ml/mx | | | | |
| | ABUNDIT EDGE | 4.5 LB/GAL | | SL | 1 qt/a | | B | 30.0 ml/mx | | | | |
| | N-PAK AMS | 3.4 LBA/GAL | | L | 2.5 % v/v | | B | 45.0 ml/mx | | | | |
| 7 | SONIC | 70 % | | WG | 3 oz/a | | A | 2.696 g/mx | 107 | 402 | 602 | 704 |
| | DURANGO DMA | 4 LBAE/GAL | | SL | 2 pt/a | | B | 30.0 ml/mx | | | | |
| | N-PAK AMS | 3.4 LBA/GAL | | L | 2.5 % v/v | | B | 45.0 ml/mx | | | | |
| 8 | SONIC | 70 % | | WG | 4 oz/a | | A | 3.595 g/mx | 108 | 306 | 502 | 805 |
| | DURANGO DMA | 4 LBAE/GAL | | SL | 2 pt/a | | B | 30.0 ml/mx | | | | |
| | N-PAK AMS | 3.4 LBA/GAL | | L | 2.5 % v/v | | B | 45.0 ml/mx | | | | |
| 9 | SONIC | 70 % | | WG | 5 oz/a | | A | 4.493 g/mx | 201 | 406 | 606 | 801 |
| | DURANGO DMA | 4 LBAE/GAL | | SL | 2 pt/a | | B | 30.0 ml/mx | | | | |
| | N-PAK AMS | 3.4 LBA/GAL | | L | 2.5 % v/v | | B | 45.0 ml/mx | | | | |
| 10 | SONIC | 70 % | | WG | 6 oz/a | | A | 5.392 g/mx | 202 | 408 | 504 | 803 |
| | DURANGO DMA | 4 LBAE/GAL | | SL | 2 pt/a | | B | 30.0 ml/mx | | | | |
| | N-PAK AMS | 3.4 LBA/GAL | | L | 2.5 % v/v | | B | 45.0 ml/mx | | | | |
| 11 | SONIC | 70 % | | WG | 3 oz/a | | A | 2.696 g/mx | 203 | 308 | 507 | 802 |
| | FIRSTRATE | 84 % | | WG | 0.3 oz/a | | B | 0.2696 g/mx | | | | |
| | DURANGO DMA | 4 LBAE/GAL | | SL | 2 pt/a | | B | 30.0 ml/mx | | | | |
| | N-PAK AMS | 3.4 LBA/GAL | | L | 2.5 % v/v | | B | 45.0 ml/mx | | | | |
| 12 | SURVEIL | 48 % | | WG | 2.1 oz/a | | A | 1.887 g/mx | 204 | 405 | 607 | 804 |
| | DURANGO DMA | 4 LBAE/GAL | | SL | 2 pt/a | | B | 30.0 ml/mx | | | | |
| | N-PAK AMS | 3.4 LBA/GAL | | L | 2.5 % v/v | | B | 45.0 ml/mx | | | | |
| 13 | SURVEIL | 48 % | | WG | 2.8 oz/a | | A | 2.516 g/mx | 205 | 407 | 508 | 703 |
| | DURANGO DMA | 4 LBAE/GAL | | SL | 2 pt/a | | B | 30.0 ml/mx | | | | |
| | N-PAK AMS | 3.4 LBA/GAL | | L | 2.5 % v/v | | B | 45.0 ml/mx | | | | |
| 14 | SURVEIL | 48 % | | WG | 3.5 oz/a | | A | 3.145 g/mx | 206 | 302 | 501 | 707 |
| | DURANGO DMA | 4 LBAE/GAL | | SL | 2 pt/a | | B | 30.0 ml/mx | | | | |
| | N-PAK AMS | 3.4 LBA/GAL | | L | 2.5 % v/v | | B | 45.0 ml/mx | | | | |
| 15 | SURVEIL | 48 % | | WG | 4.2 oz/a | | A | 3.775 g/mx | 207 | 401 | 605 | 708 |
| | DURANGO DMA | 4 LBAE/GAL | | SL | 2 pt/a | | B | 30.0 ml/mx | | | | |
| | N-PAK AMS | 3.4 LBA/GAL | | L | 2.5 % v/v | | B | 45.0 ml/mx | | | | |
| 16 | UNTREATED CHECK 2 | | | | | | | | 208 | 404 | 608 | 706 |

Sort Order: Replicate 1

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| | |
|------------------------------|---------------------------------|
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| Project ID: Soybean Showcase | Study Director: Dustin Johnson |
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Reps: 4 Plots: 10 by 30 feet
 Spray vol: 15 GAL/AC Mix Size: 1.8 liters (1.5642 liters calculated mix size)
 Product quantities required for listed treatments and applications of trials included in this table:

| Amount* | Unit | Treatment Name | Form Conc | Form Unit | Form Type | Lot Code |
|---------|------|----------------|-----------|-----------|-----------|----------|
| 11.795 | g | CANOPY | 75 | % | WG | |
| 187.499 | ml | ABUNDIT EDGE | 4.5 | LB/GAL | SL | |
| 787.414 | ml | N-PAK AMS | 3.4 | LBA/GAL | L | |
| 3.438 | g | CLASSIC | 25 | % | WG | |
| 5.336 | g | TRICOR DF | 75 | % | DF | |
| 4.493 | g | VALOR SX | 51 | % | WG | |
| 0.225 | g | HARMONY SG | 50 | % | SG | |
| 18.750 | ml | CINCH | 7.64 | LB/GAL | EC | |
| 23.591 | g | SONIC | 70 | % | WG | |
| 337.500 | ml | DURANGO DMA | 4 | LBAE/GAL | SL | |
| 0.337 | g | FIRSTRATE | 84 | % | WG | |
| 14.154 | g | SURVEIL | 48 | % | WG | |

* 'Per area' calculations based on spray volume= 15 GAL/AC, mix size= 1.8 liters (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 1.8 liters.

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| Pest Type | W Weed | | W Weed | | W Weed | | W Weed | |
|-------------------------------|---------------|------------|---------------|-----------|---------------|-----------|---------------|-----------|
| Pest Code | AMBTR | | AMBTR | | AMBTR | | AMBTR | |
| Pest Name | Giant ragweed | | Giant ragweed | | Giant ragweed | | Giant ragweed | |
| Crop Code | GLXMA | | GLXMA | | GLXMA | | GLXMA | |
| Crop Name | Soybean | | Soybean | | Soybean | | Soybean | |
| Part Rated | PLOT - | | PLOT - | | PLOT - | | PLOT - | |
| Rating Date | Jun-6-2017 | | Jun-6-2017 | | Jun-13-2017 | | Jun-13-2017 | |
| Rating Type | CONTROL | | PHYGEN | | CONTROL | | PHYGEN | |
| Rating Unit | % | | % | | % | | % | |
| Number of Subsamples | 1 | | 1 | | 1 | | 1 | |
| Assessed By | D. JOHNSON | D. JOHNSON | M. ZIMMER | M. ZIMMER | M. ZIMMER | M. ZIMMER | M. ZIMMER | M. ZIMMER |
| Rating Timing | A1 | | A1 | | A2 | | A2 | |
| Days After First/Last Applic. | 19 19 | | 19 19 | | 26 7 | | 26 7 | |
| Days After Emergence | 10 DE-1 | | 10 DE-1 | | 17 DE-1 | | 17 DE-1 | |
| ARM Action Codes | P | | P | | P | | P | |
| Number of Decimals | 0 | | 0 | | 0 | | 0 | |
| Trt Treatment | Rate | Appl | | | | | | |
| No. Name | Rate | Unit | Code | Plot | 1 | 2 | 3 | 4 |
| 1 UNTREATED CHECK | | | | 101 | 0 | 0 | 0 | 0 |
| | | | | 305 | 0 | 0 | 0 | 0 |
| | | | | 506 | 0 | 0 | 0 | 0 |
| | | | | 705 | 0 | 0 | 0 | 0 |
| | | | | Mean = | 0 | 0 | 0 | 0 |
| 2 CANOPY | 3.5 oz/a | A | | 102 | 70 | 0 | 98 | 0 |
| ABUNDIT EDGE | 1 qt/a | B | | 304 | 10 | 0 | 90 | 0 |
| N-PAK AMS | 2.5 % v/v | B | | 505 | 10 | 0 | 90 | 0 |
| | | | | 806 | 35 | 0 | 99 | 0 |
| | | | | Mean = | 31 | 0 | 94 | 0 |
| 3 TRIVENCE @ 8 OZ/A | | | | 103 | 20 | 0 | 93 | 0 |
| CLASSIC | 1.28 oz/a | A | | 307 | 90 | 0 | 100 | 0 |
| TRICOR DF | 4.75 oz/a | A | | 503 | 10 | 0 | 90 | 0 |
| VALOR SX | 2 oz/a | A | | 807 | 35 | 0 | 97 | 0 |
| ABUNDIT EDGE | 1 qt/a | B | | | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | | | |
| | | | | Mean = | 39 | 0 | 95 | 0 |
| 4 CANOPY | 3.5 oz/a | A | | 104 | 10 | 0 | 93 | 0 |
| ABUNDIT EDGE | 1 qt/a | B | | 303 | 10 | 0 | 90 | 0 |
| CLASSIC | 0.5 oz/a | B | | 604 | 5 | 0 | 93 | 0 |
| N-PAK AMS | 2.5 % v/v | B | | 808 | 30 | 0 | 95 | 0 |
| | | | | Mean = | 14 | 0 | 93 | 0 |
| 5 ENVIVE @ 3.5 OZ/A | | | | 105 | 5 | 0 | 88 | 0 |
| VALOR SX | 2 oz/a | A | | 403 | 50 | 0 | 95 | 0 |
| CLASSIC | 1.28 oz/a | A | | 601 | 10 | 0 | 88 | 0 |
| HARMONY SG | 0.2 oz/a | A | | 702 | 10 | 0 | 85 | 0 |
| ABUNDIT EDGE | 1 qt/a | B | | | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | | | |
| | | | | Mean = | 19 | 0 | 89 | 0 |
| 6 CANOPY | 3.5 oz/a | A | | 106 | 75 | 0 | 93 | 0 |
| CINCH | 1 pt/a | A | | 301 | 30 | 0 | 93 | 0 |
| ABUNDIT EDGE | 1 qt/a | B | | 603 | 10 | 0 | 93 | 0 |
| N-PAK AMS | 2.5 % v/v | B | | 701 | 20 | 0 | 88 | 0 |
| | | | | Mean = | 34 | 0 | 92 | 0 |
| 7 SONIC | 3 oz/a | A | | 107 | 75 | 0 | 95 | 0 |
| DURANGO DMA | 2 pt/a | B | | 402 | 40 | 0 | 93 | 0 |
| N-PAK AMS | 2.5 % v/v | B | | 602 | 5 | 0 | 85 | 0 |
| | | | | 704 | 40 | 0 | 96 | 0 |
| | | | | Mean = | 40 | 0 | 92 | 0 |
| 8 SONIC | 4 oz/a | A | | 108 | 50 | 0 | 98 | 0 |
| DURANGO DMA | 2 pt/a | B | | 306 | 80 | 0 | 98 | 0 |
| N-PAK AMS | 2.5 % v/v | B | | 502 | 20 | 0 | 90 | 0 |
| | | | | 805 | 35 | 0 | 99 | 0 |
| | | | | Mean = | 46 | 0 | 96 | 0 |
| 9 SONIC | 5 oz/a | A | | 201 | 70 | 0 | 99 | 0 |
| DURANGO DMA | 2 pt/a | B | | 406 | 50 | 0 | 95 | 0 |
| N-PAK AMS | 2.5 % v/v | B | | 606 | 10 | 0 | 95 | 0 |
| | | | | 801 | 35 | 0 | 99 | 0 |
| | | | | Mean = | 41 | 0 | 97 | 0 |

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 Project ID: Soybean Showcase Study Director: Dustin Johnson
 Sponsor Contact:

| Pest Type | W Weed | | W Weed | | W Weed | | W Weed | |
|-------------------------------|---------------|------------|---------------|-----------|---------------|-----------|---------------|-----------|
| Pest Code | AMBTR | | AMBTR | | AMBTR | | AMBTR | |
| Pest Name | Giant ragweed | | Giant ragweed | | Giant ragweed | | Giant ragweed | |
| Crop Code | GLXMA | | GLXMA | | GLXMA | | GLXMA | |
| Crop Name | Soybean | | Soybean | | Soybean | | Soybean | |
| Part Rated | PLOT - | | PLOT - | | PLOT - | | PLOT - | |
| Rating Date | Jun-6-2017 | | Jun-6-2017 | | Jun-13-2017 | | Jun-13-2017 | |
| Rating Type | CONTROL | | CONTROL | | PHYGEN | | CONTROL | |
| Rating Unit | % | | % | | % | | % | |
| Number of Subsamples | 1 | | 1 | | 1 | | 1 | |
| Assessed By | D. JOHNSON | D. JOHNSON | M. ZIMMER | M. ZIMMER | M. ZIMMER | M. ZIMMER | M. ZIMMER | M. ZIMMER |
| Rating Timing | A1 | | A1 | | A2 | | A3 | |
| Days After First/Last Applic. | 19 19 | 19 19 | 26 7 | 26 7 | 33 14 | 33 14 | 33 14 | 33 14 |
| Days After Emergence | 10 DE-1 | 10 DE-1 | 17 DE-1 | 17 DE-1 | 24 DE-1 | 24 DE-1 | 24 DE-1 | 24 DE-1 |
| ARM Action Codes | P | | P | | P | | P | |
| Number of Decimals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Trt Treatment | Rate | Appl | | | | | | |
| No. Name | Rate Unit | Code Plot | 1 | 2 | 3 | 4 | 5 | 6 |
| 10 SONIC | 6 oz/a | A 202 | 60 | 0 | 99 | 0 | 99 | 0 |
| DURANGO DMA | 2 pt/a | B 408 | 80 | 0 | 100 | 0 | 99 | 0 |
| N-PAK AMS | 2.5 % v/v | B 504 | 15 | 0 | 90 | 0 | 90 | 0 |
| | | 803 | 70 | 0 | 100 | 0 | 98 | 0 |
| | | Mean = | 56 | 0 | 97 | 0 | 97 | 0 |
| 11 SONIC | 3 oz/a | A 203 | 30 | 0 | 93 | 0 | 97 | 0 |
| FIRSTRATE | 0.3 oz/a | B 308 | 70 | 0 | 98 | 0 | 99 | 0 |
| DURANGO DMA | 2 pt/a | B 507 | 30 | 0 | 95 | 0 | 95 | 0 |
| N-PAK AMS | 2.5 % v/v | B 802 | 15 | 0 | 98 | 0 | 98 | 0 |
| | | Mean = | 36 | 0 | 96 | 0 | 97 | 0 |
| 12 SURVEIL | 2.1 oz/a | A 204 | 50 | 0 | 99 | 0 | 97 | 0 |
| DURANGO DMA | 2 pt/a | B 405 | 50 | 0 | 95 | 0 | 98 | 0 |
| N-PAK AMS | 2.5 % v/v | B 607 | 30 | 0 | 69 | 0 | 99 | 0 |
| | | 804 | 60 | 0 | 100 | 0 | 95 | 0 |
| | | Mean = | 48 | 0 | 98 | 0 | 97 | 0 |
| 13 SURVEIL | 2.8 oz/a | A 205 | 80 | 0 | 99 | 0 | 98 | 0 |
| DURANGO DMA | 2 pt/a | B 407 | 80 | 0 | 99 | 0 | 99 | 0 |
| N-PAK AMS | 2.5 % v/v | B 508 | 50 | 0 | 100 | 0 | 99 | 0 |
| | | 703 | 60 | 0 | 97 | 0 | 97 | 0 |
| | | Mean = | 68 | 0 | 99 | 0 | 98 | 0 |
| 14 SURVEIL | 3.5 oz/a | A 206 | 95 | 0 | 100 | 0 | 99 | 0 |
| DURANGO DMA | 2 pt/a | B 302 | 65 | 0 | 98 | 0 | 95 | 0 |
| N-PAK AMS | 2.5 % v/v | B 501 | 60 | 0 | 95 | 0 | 93 | 0 |
| | | 707 | 65 | 0 | 97 | 0 | 97 | 0 |
| | | Mean = | 71 | 0 | 98 | 0 | 96 | 0 |
| 15 SURVEIL | 4.2 oz/a | A 207 | 95 | 0 | 100 | 0 | 99 | 0 |
| DURANGO DMA | 2 pt/a | B 401 | 80 | 0 | 100 | 0 | 95 | 0 |
| N-PAK AMS | 2.5 % v/v | B 605 | 40 | 0 | 97 | 0 | 95 | 0 |
| | | 708 | 55 | 0 | 98 | 0 | 99 | 0 |
| | | Mean = | 68 | 0 | 99 | 0 | 97 | 0 |
| 16 UNTREATED CHECK 2 | | 208 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 404 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 608 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 706 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Mean = | 0 | 0 | 0 | 0 | 0 | 0 |

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| | | |
|------------------------------|--------------------------------|------------------|
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| Project ID: Soybean Showcase | Study Director: Dustin Johnson | |
| Sponsor Contact: | | |

| Pest Type | W Weed | W Weed |
|-------------------------------|---------------|---------------|
| Pest Code | AMBTR | AMBTR |
| Pest Name | Giant ragweed | Giant ragweed |
| Crop Code | GLXMA | GLXMA |
| Crop Name | Soybean | Soybean |
| Part Rated | PLOT - | PLOT - |
| Rating Date | Jul-5-2017 | Jul-19-2017 |
| Rating Type | CONTROL | CONTROL |
| Rating Unit | % | % |
| Number of Subsamples | 1 | 1 |
| Assessed By | M. ZIMMER | D. JOHNSON |
| Rating Timing | A4 | A5 |
| Days After First/Last Applic. | 48 29 | 62 43 |
| Days After Emergence | 39 DE-1 | 53 DE-1 |
| ARM Action Codes | P | P |
| Number of Decimals | 0 | 0 |

| Trt Treatment | Rate | Appl | Code | Plot | 7 | 8 |
|---------------------|-----------|------|------|--------|----|----|
| 1 UNTREATED CHECK | | | | 101 | 0 | 0 |
| | | | | 305 | 0 | 0 |
| | | | | 506 | 0 | 0 |
| | | | | 705 | 0 | 0 |
| | | | | Mean = | 0 | 0 |
| 2 CANOPY | 3.5 oz/a | A | | 102 | 97 | 70 |
| ABUNDIT EDGE | 1 qt/a | B | | 304 | 88 | 40 |
| N-PAK AMS | 2.5 % v/v | B | | 505 | 85 | 45 |
| | | | | 806 | 93 | 55 |
| | | | | Mean = | 91 | 53 |
| 3 TRIVENCE @ 8 OZ/A | | | | 103 | 85 | 60 |
| CLASSIC | 1.28 oz/a | A | | 307 | 95 | 70 |
| TRICOR DF | 4.75 oz/a | A | | 503 | 80 | 40 |
| VALOR SX | 2 oz/a | A | | 807 | 93 | 50 |
| ABUNDIT EDGE | 1 qt/a | B | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | |
| | | | | Mean = | 88 | 55 |
| 4 CANOPY | 3.5 oz/a | A | | 104 | 80 | 40 |
| ABUNDIT EDGE | 1 qt/a | B | | 303 | 83 | 40 |
| CLASSIC | 0.5 oz/a | B | | 604 | 83 | 45 |
| N-PAK AMS | 2.5 % v/v | B | | 808 | 93 | 50 |
| | | | | Mean = | 85 | 44 |
| 5 ENVIVE @ 3.5 OZ/A | | | | 105 | 80 | 40 |
| VALOR SX | 2 oz/a | A | | 403 | 93 | 65 |
| CLASSIC | 1.28 oz/a | A | | 601 | 85 | 40 |
| HARMONY SG | 0.2 oz/a | A | | 702 | 85 | 30 |
| ABUNDIT EDGE | 1 qt/a | B | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | |
| | | | | Mean = | 86 | 44 |
| 6 CANOPY | 3.5 oz/a | A | | 106 | 90 | 55 |
| CINCH | 1 pt/a | A | | 301 | 93 | 50 |
| ABUNDIT EDGE | 1 qt/a | B | | 603 | 85 | 45 |
| N-PAK AMS | 2.5 % v/v | B | | 701 | 80 | 30 |
| | | | | Mean = | 87 | 45 |
| 7 SONIC | 3 oz/a | A | | 107 | 93 | 65 |
| DURANGO DMA | 2 pt/a | B | | 402 | 93 | 65 |
| N-PAK AMS | 2.5 % v/v | B | | 602 | 85 | 40 |
| | | | | 704 | 78 | 30 |
| | | | | Mean = | 87 | 50 |
| 8 SONIC | 4 oz/a | A | | 108 | 93 | 60 |
| DURANGO DMA | 2 pt/a | B | | 306 | 93 | 65 |
| N-PAK AMS | 2.5 % v/v | B | | 502 | 80 | 40 |
| | | | | 805 | 90 | 40 |
| | | | | Mean = | 89 | 51 |
| 9 SONIC | 5 oz/a | A | | 201 | 97 | 70 |
| DURANGO DMA | 2 pt/a | B | | 406 | 90 | 60 |
| N-PAK AMS | 2.5 % v/v | B | | 606 | 85 | 45 |
| | | | | 801 | 88 | 30 |
| | | | | Mean = | 90 | 51 |

Purdue Weed Science

Soybean Herbicide Programs for DuPont & DOW

| | |
|------------------------------|---------------------------------|
| Trial ID: 17S-TPAC-SOY-35 | Location: TPAC Trial Year: 2017 |
| Protocol ID: 17S-TPAC-SOY-35 | Investigator: Dr. Bill Johnson |
| Project ID: Soybean Showcase | Study Director: Dustin Johnson |
| Sponsor Contact: | |

| Pest Type | W Weed | W Weed |
|-------------------------------|---------------|---------------|
| Pest Code | AMBTR | AMBTR |
| Pest Name | Giant ragweed | Giant ragweed |
| Crop Code | GLXMA | GLXMA |
| Crop Name | Soybean | Soybean |
| Part Rated | PLOT - | PLOT - |
| Rating Date | Jul-5-2017 | Jul-19-2017 |
| Rating Type | CONTROL | CONTROL |
| Rating Unit | % | % |
| Number of Subsamples | 1 | 1 |
| Assessed By | M. ZIMMER | D. JOHNSON |
| Rating Timing | A4 | A5 |
| Days After First/Last Applic. | 48 29 | 62 43 |
| Days After Emergence | 39 DE-1 | 53 DE-1 |
| ARM Action Codes | P | P |
| Number of Decimals | 0 | 0 |

| Trt Treatment | Rate | Appl | No. | 7 | 8 |
|----------------------|-----------|-----------|--------|----|----|
| No. Name | Rate Unit | Code Plot | | | |
| 10 SONIC | 6 oz/a | A | 202 | 93 | 65 |
| DURANGO DMA | 2 pt/a | B | 408 | 93 | 65 |
| N-PAK AMS | 2.5 % v/v | B | 504 | 75 | 40 |
| | | | 803 | 93 | 40 |
| | | | Mean = | 89 | 53 |
| 11 SONIC | 3 oz/a | A | 203 | 88 | 40 |
| FIRSTRATE | 0.3 oz/a | B | 308 | 93 | 65 |
| DURANGO DMA | 2 pt/a | B | 507 | 90 | 65 |
| N-PAK AMS | 2.5 % v/v | B | 802 | 93 | 40 |
| | | | Mean = | 91 | 53 |
| 12 SURVEIL | 2.1 oz/a | A | 204 | 88 | 40 |
| DURANGO DMA | 2 pt/a | B | 405 | 90 | 50 |
| N-PAK AMS | 2.5 % v/v | B | 607 | 90 | 60 |
| | | | 804 | 88 | 35 |
| | | | Mean = | 89 | 46 |
| 13 SURVEIL | 2.8 oz/a | A | 205 | 93 | 60 |
| DURANGO DMA | 2 pt/a | B | 407 | 93 | 70 |
| N-PAK AMS | 2.5 % v/v | B | 508 | 93 | 70 |
| | | | 703 | 90 | 35 |
| | | | Mean = | 92 | 59 |
| 14 SURVEIL | 3.5 oz/a | A | 206 | 97 | 80 |
| DURANGO DMA | 2 pt/a | B | 302 | 88 | 40 |
| N-PAK AMS | 2.5 % v/v | B | 501 | 88 | 45 |
| | | | 707 | 90 | 50 |
| | | | Mean = | 91 | 54 |
| 15 SURVEIL | 4.2 oz/a | A | 207 | 95 | 70 |
| DURANGO DMA | 2 pt/a | B | 401 | 90 | 60 |
| N-PAK AMS | 2.5 % v/v | B | 605 | 88 | 45 |
| | | | 708 | 93 | 55 |
| | | | Mean = | 92 | 58 |
| 16 UNTREATED CHECK 2 | | | 208 | 0 | 0 |
| | | | 404 | 0 | 0 |
| | | | 608 | 0 | 0 |
| | | | 706 | 0 | 0 |
| | | | Mean = | 0 | 0 |

Purdue Weed Science

Soybean Herbicide Programs for DuPont & DOW

Trial ID: 17S-TPAC-SOY-35 Location: TPAC Trial Year: 2017
Protocol ID: 17S-TPAC-SOY-35 Investigator: Dr. Bill Johnson
Project ID: Soybean Showcase Study Director: Dustin Johnson
Sponsor Contact:

Pest Type

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

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

Crop Code

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLOT = plot

Rating Type

PHYGEN = phytotoxicity - general / injury

Rating Unit

% = percent

Rating Timing

A1 = 1st Assessment According to Trial Schedule

A2 = 2nd Assessment According to trial Schedule

A3 = 3rd Assessment According to Trial Schedule

A4 = 4th Assessment According to Trial Schedule

A5 = 5th Assessment According to Trial Schedule

ARM Action Codes

P = Rating scale of 0 to 100 (e.g. % control or injury)

Purdue Weed Science

Soybean Herbicide Programs for DuPont & DOW

Trial ID: 17S-TPAC-SOY-35 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-35 Investigator: Dr. Bill Johnson
 Project ID: Soybean Showcase Study Director: Dustin Johnson
 Sponsor Contact:

| Pest Type | W Weed | | W Weed | | W Weed | | | |
|----------------------------------|-----------------|-----------------|----------------|----------------|----------------|----------------|-------|-----|
| Pest Code | AMBTR | | AMBTR | | AMBTR | | | |
| Pest Name | Giant ragweed | | Giant ragweed | | Giant ragweed | | | |
| Crop Code | GLXMA | GLXMA | GLXMA | GLXMA | GLXMA | GLXMA | | |
| Crop Name | Soybean | Soybean | Soybean | Soybean | Soybean | Soybean | | |
| Part Rated | PLOT - | PLOT - | PLOT - | PLOT - | PLOT - | PLOT - | | |
| Rating Date | Jun-6-2017 | Jun-6-2017 | Jun-13-2017 | Jun-13-2017 | Jun-20-2017 | Jun-20-2017 | | |
| Rating Type | CONTROL | PHYGEN | CONTROL | PHYGEN | CONTROL | PHYGEN | | |
| Rating Unit | % | % | % | % | % | % | | |
| Number of Subsamples Assessed By | 1 D. JOHNSON | 1 D. JOHNSON | 1 M. ZIMMER | 1 M. ZIMMER | 1 M. ZIMMER | 1 M. ZIMMER | | |
| Rating Timing | A1 | A1 | A2 | A2 | A3 | A3 | | |
| Days After First/Last Applic. | 19 19 | 19 19 | 26 7 | 26 7 | 33 14 | 33 14 | | |
| Days After Emergence | 10 DE-1 | 10 DE-1 | 17 DE-1 | 17 DE-1 | 24 DE-1 | 24 DE-1 | | |
| ARM Action Codes | P | P | P | P | P | P | | |
| Number of Decimals | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Trt Treatment | Rate | Appl | | | | | | |
| No. Name | Rate Unit | Code | 1 | 2 | 3 | 4 | 5 | 6 |
| 1 UNTREATED CHECK | | | 0 c | 0 a | 0 c | 0 a | 0 c | 0 a |
| 2 CANOPY | 3.5 oz/a | A | 31 abc | 0 a | 94 ab | 0 a | 95 ab | 0 a |
| ABUNDIT EDGE | 1 qt/a | B | | | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | | | |
| 3 TRIVENCE @ 8 OZ/A | | | 39 abc | 0 a | 95 ab | 0 a | 95 ab | 0 a |
| CLASSIC | 1.28 oz/a | A | | | | | | |
| TRICOR DF | 4.75 oz/a | A | | | | | | |
| VALOR SX | 2 oz/a | A | | | | | | |
| ABUNDIT EDGE | 1 qt/a | B | | | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | | | |
| 4 CANOPY | 3.5 oz/a | A | 14 bc | 0 a | 93 ab | 0 a | 94 ab | 0 a |
| ABUNDIT EDGE | 1 qt/a | B | | | | | | |
| CLASSIC | 0.5 oz/a | B | | | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | | | |
| 5 ENVIVE @ 3.5 OZ/A | | | 19 bc | 0 a | 89 b | 0 a | 90 b | 0 a |
| VALOR SX | 2 oz/a | A | | | | | | |
| CLASSIC | 1.28 oz/a | A | | | | | | |
| HARMONY SG | 0.2 oz/a | A | | | | | | |
| ABUNDIT EDGE | 1 qt/a | B | | | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | | | |
| 6 CANOPY | 3.5 oz/a | A | 34 abc | 0 a | 92 ab | 0 a | 93 ab | 0 a |
| CINCH | 1 pt/a | A | | | | | | |
| ABUNDIT EDGE | 1 qt/a | B | | | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | | | |
| 7 SONIC | 3 oz/a | A | 40 abc | 0 a | 92 ab | 0 a | 94 ab | 0 a |
| DURANGO DMA | 2 pt/a | B | | | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | | | |
| 8 SONIC | 4 oz/a | A | 46 ab | 0 a | 96 a | 0 a | 96 ab | 0 a |
| DURANGO DMA | 2 pt/a | B | | | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | | | |
| 9 SONIC | 5 oz/a | A | 41 abc | 0 a | 97 a | 0 a | 97 ab | 0 a |
| DURANGO DMA | 2 pt/a | B | | | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | | | |
| 10 SONIC | 6 oz/a | A | 56 ab | 0 a | 97 a | 0 a | 97 ab | 0 a |
| DURANGO DMA | 2 pt/a | B | | | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | | | |
| 11 SONIC | 3 oz/a | A | 36 abc | 0 a | 96 a | 0 a | 97 ab | 0 a |
| FIRSTRATE | 0.3 oz/a | B | | | | | | |
| DURANGO DMA | 2 pt/a | B | | | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | | | |
| 12 SURVEIL | 2.1 oz/a | A | 48 ab | 0 a | 98 a | 0 a | 97 ab | 0 a |
| DURANGO DMA | 2 pt/a | B | | | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | | | |

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Could not calculate LSD (% mean diff) for columns 2,4,6 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Programs for DuPont & DOW

| | | |
|------------------------------|--------------------------------|------------------|
| Trial ID: 17S-TPAC-SOY-35 | Location: TPAC | Trial Year: 2017 |
| Protocol ID: 17S-TPAC-SOY-35 | Investigator: Dr. Bill Johnson | |
| Project ID: Soybean Showcase | Study Director: Dustin Johnson | |
| Sponsor Contact: | | |

| Pest Type | W Weed | | W Weed | | W Weed | | | |
|----------------------------------|-----------------|-----------------|----------------|----------------|----------------|----------------|-------|-----|
| Pest Code | AMBTR | | AMBTR | | AMBTR | | | |
| Pest Name | Giant ragweed | | Giant ragweed | | Giant ragweed | | | |
| Crop Code | GLXMA | GLXMA | GLXMA | GLXMA | GLXMA | GLXMA | | |
| Crop Name | Soybean | Soybean | Soybean | Soybean | Soybean | Soybean | | |
| Part Rated | PLOT - | PLOT - | PLOT - | PLOT - | PLOT - | PLOT - | | |
| Rating Date | Jun-6-2017 | Jun-6-2017 | Jun-13-2017 | Jun-13-2017 | Jun-20-2017 | Jun-20-2017 | | |
| Rating Type | CONTROL | PHYGEN | CONTROL | PHYGEN | CONTROL | PHYGEN | | |
| Rating Unit | % | % | % | % | % | % | | |
| Number of Subsamples Assessed By | 1 D. JOHNSON | 1 D. JOHNSON | 1 M. ZIMMER | 1 M. ZIMMER | 1 M. ZIMMER | 1 M. ZIMMER | | |
| Rating Timing | A1 | A1 | A2 | A2 | A3 | A3 | | |
| Days After First/Last Applic. | 19 19 | 19 19 | 26 7 | 26 7 | 33 14 | 33 14 | | |
| Days After Emergence | 10 DE-1 | 10 DE-1 | 17 DE-1 | 17 DE-1 | 24 DE-1 | 24 DE-1 | | |
| ARM Action Codes | P | P | P | P | P | P | | |
| Number of Decimals | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Trt Treatment No. Name | Rate | Appl Code | 1 | 2 | 3 | 4 | 5 | 6 |
| 13 SURVEIL | 2.8 oz/a | A | 68 a | 0 a | 99 a | 0 a | 98 a | 0 a |
| DURANGO DMA | 2 pt/a | B | | | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | | | |
| 14 SURVEIL | 3.5 oz/a | A | 71 a | 0 a | 98 a | 0 a | 96 ab | 0 a |
| DURANGO DMA | 2 pt/a | B | | | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | | | |
| 15 SURVEIL | 4.2 oz/a | A | 68 a | 0 a | 99 a | 0 a | 97 ab | 0 a |
| DURANGO DMA | 2 pt/a | B | | | | | | |
| N-PAK AMS | 2.5 % v/v | B | | | | | | |
| 16 UNTREATED CHECK 2 | | | 0 c | 0 a | 0 c | 0 a | 0 c | 0 a |
| LSD P=.05 | 25.9 | . | 4.2 | . | 4.6 | . | | |
| Standard Deviation | 18.2 | 0.0 | 2.9 | 0.0 | 3.2 | 0.0 | | |
| CV | 47.64 | 0.0 | 3.51 | 0.0 | 3.86 | 0.0 | | |
| Bartlett's X2 | 7.251 | 0.0 | 13.599 | 0.0 | 18.219 | 0.0 | | |
| P(Bartlett's X2) | 0.889 | . | 0.403 | . | 0.149 | . | | |
| Skewness | 0.2649 | . | -2.2563* | . | -2.2669* | . | | |
| Kurtosis | -1.2098* | . | 3.3211* | . | 3.3478* | . | | |
| Replicate F | 9.872 | 0.000 | 3.926 | 0.000 | 2.056 | 0.000 | | |
| Replicate Prob(F) | 0.0001 | 1.0000 | 0.0143 | 1.0000 | 0.1194 | 1.0000 | | |
| Treatment F | 5.874 | 0.000 | 497.332 | 0.000 | 410.601 | 0.000 | | |
| Treatment Prob(F) | 0.0001 | 1.0000 | 0.0001 | 1.0000 | 0.0001 | 1.0000 | | |

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Could not calculate LSD (% mean diff) for columns 2,4,6 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Programs for DuPont & DOW

| | | |
|------------------------------|--------------------------------|------------------|
| Trial ID: 17S-TPAC-SOY-35 | Location: TPAC | Trial Year: 2017 |
| Protocol ID: 17S-TPAC-SOY-35 | Investigator: Dr. Bill Johnson | |
| Project ID: Soybean Showcase | Study Director: Dustin Johnson | |
| Sponsor Contact: | | |

| Pest Type | W Weed | W Weed |
|-------------------------------|---------------|---------------|
| Pest Code | AMBTR | AMBTR |
| Pest Name | Giant ragweed | Giant ragweed |
| Crop Code | GLXMA | GLXMA |
| Crop Name | Soybean | Soybean |
| Part Rated | PLOT - | PLOT - |
| Rating Date | Jul-5-2017 | Jul-19-2017 |
| Rating Type | CONTROL | CONTROL |
| Rating Unit | % | % |
| Number of Subsamples | 1 | 1 |
| Assessed By | M. ZIMMER | D. JOHNSON |
| Rating Timing | A4 | A5 |
| Days After First/Last Applic. | 48 29 | 62 43 |
| Days After Emergence | 39 DE-1 | 53 DE-1 |
| ARM Action Codes | P | P |
| Number of Decimals | 0 | 0 |

| Trt Treatment | Rate | Appl | 7 | 8 |
|---------------------|-----------|------|------|------|
| No. Name | Rate Unit | Code | | |
| 1 UNTREATED CHECK | | | 0 b | 0 b |
| 2 CANOPY | 3.5 oz/a | A | 91 a | 53 a |
| ABUNDIT EDGE | 1 qt/a | B | | |
| N-PAK AMS | 2.5 % v/v | B | | |
| 3 TRIVENCE @ 8 OZ/A | | | 88 a | 55 a |
| CLASSIC | 1.28 oz/a | A | | |
| TRICOR DF | 4.75 oz/a | A | | |
| VALOR SX | 2 oz/a | A | | |
| ABUNDIT EDGE | 1 qt/a | B | | |
| N-PAK AMS | 2.5 % v/v | B | | |
| 4 CANOPY | 3.5 oz/a | A | 85 a | 44 a |
| ABUNDIT EDGE | 1 qt/a | B | | |
| CLASSIC | 0.5 oz/a | B | | |
| N-PAK AMS | 2.5 % v/v | B | | |
| 5 ENVIVE @ 3.5 OZ/A | | | 86 a | 44 a |
| VALOR SX | 2 oz/a | A | | |
| CLASSIC | 1.28 oz/a | A | | |
| HARMONY SG | 0.2 oz/a | A | | |
| ABUNDIT EDGE | 1 qt/a | B | | |
| N-PAK AMS | 2.5 % v/v | B | | |
| 6 CANOPY | 3.5 oz/a | A | 87 a | 45 a |
| CINCH | 1 pt/a | A | | |
| ABUNDIT EDGE | 1 qt/a | B | | |
| N-PAK AMS | 2.5 % v/v | B | | |
| 7 SONIC | 3 oz/a | A | 87 a | 50 a |
| DURANGO DMA | 2 pt/a | B | | |
| N-PAK AMS | 2.5 % v/v | B | | |
| 8 SONIC | 4 oz/a | A | 89 a | 51 a |
| DURANGO DMA | 2 pt/a | B | | |
| N-PAK AMS | 2.5 % v/v | B | | |
| 9 SONIC | 5 oz/a | A | 90 a | 51 a |
| DURANGO DMA | 2 pt/a | B | | |
| N-PAK AMS | 2.5 % v/v | B | | |
| 10 SONIC | 6 oz/a | A | 89 a | 53 a |
| DURANGO DMA | 2 pt/a | B | | |
| N-PAK AMS | 2.5 % v/v | B | | |
| 11 SONIC | 3 oz/a | A | 91 a | 53 a |
| FIRSTRATE | 0.3 oz/a | B | | |
| DURANGO DMA | 2 pt/a | B | | |
| N-PAK AMS | 2.5 % v/v | B | | |
| 12 SURVEIL | 2.1 oz/a | A | 89 a | 46 a |
| DURANGO DMA | 2 pt/a | B | | |
| N-PAK AMS | 2.5 % v/v | B | | |

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Could not calculate LSD (% mean diff) for columns 2,4,6 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Programs for DuPont & DOW

| | | |
|------------------------------|--------------------------------|------------------|
| Trial ID: 17S-TPAC-SOY-35 | Location: TPAC | Trial Year: 2017 |
| Protocol ID: 17S-TPAC-SOY-35 | Investigator: Dr. Bill Johnson | |
| Project ID: Soybean Showcase | Study Director: Dustin Johnson | |
| Sponsor Contact: | | |

| | | |
|-------------------------------|----------------|---------------|
| Pest Type | W Weed | W Weed |
| Pest Code | AMBTR | AMBTR |
| Pest Name | Giant ragweed | Giant ragweed |
| Crop Code | GLXMA | GLXMA |
| Crop Name | Soybean | Soybean |
| Part Rated | PLOT - | PLOT - |
| Rating Date | Jul-5-2017 | Jul-19-2017 |
| Rating Type | CONTROL | CONTROL |
| Rating Unit | % | % |
| Number of Subsamples | 1 | 1 |
| Assessed By | M. ZIMMER | D. JOHNSON |
| Rating Timing | A4 | A5 |
| Days After First/Last Applic. | 48 29 | 62 43 |
| Days After Emergence | 39 DE-1 | 53 DE-1 |
| ARM Action Codes | P | P |
| Number of Decimals | 0 | 0 |
| Trt Treatment | Rate | Appl |
| No. Name | Rate Unit Code | |
| | 7 | 8 |
| 13 SURVEIL | 2.8 oz/a A | 92 a |
| DURANGO DMA | 2 pt/a B | |
| N-PAK AMS | 2.5 % v/v B | 59 a |
| 14 SURVEIL | 3.5 oz/a A | 91 a |
| DURANGO DMA | 2 pt/a B | |
| N-PAK AMS | 2.5 % v/v B | 54 a |
| 15 SURVEIL | 4.2 oz/a A | 92 a |
| DURANGO DMA | 2 pt/a B | |
| N-PAK AMS | 2.5 % v/v B | 58 a |
| 16 UNTREATED CHECK 2 | | 0 b |
| LSD P=.05 | 6.5 | 15.9 |
| Standard Deviation | 4.6 | 11.2 |
| CV | 5.9 | 25.07 |
| Bartlett's X2 | 17.147 | 5.791 |
| P(Bartlett's X2) | 0.193 | 0.953 |
| Skewness | -2.2064* | -0.874* |
| Kurtosis | 3.1832* | 0.2781 |
| Replicate F | 4.233 | 6.930 |
| Replicate Prob(F) | 0.0102 | 0.0006 |
| Treatment F | 175.964 | 10.329 |
| Treatment Prob(F) | 0.0001 | 0.0001 |

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Could not calculate LSD (% mean diff) for columns 2,4,6 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Programs for DuPont & DOW

Trial ID: 17S-TPAC-SOY-35 Location: TPAC Trial Year: 2017
Protocol ID: 17S-TPAC-SOY-35 Investigator: Dr. Bill Johnson
Project ID: Soybean Showcase Study Director: Dustin Johnson
Sponsor Contact:

Pest Type

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

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

Crop Code

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLOT = plot

Rating Type

PHYGEN = phytotoxicity - general / injury

Rating Unit

% = percent

Rating Timing

A1 = 1st Assessment According to Trial Schedule

A2 = 2nd Assessment According to trial Schedule

A3 = 3rd Assessment According to Trial Schedule

A4 = 4th Assessment According to Trial Schedule

A5 = 5th Assessment According to Trial Schedule

ARM Action Codes

P = Rating scale of 0 to 100 (e.g. % control or injury)