

# Purdue Weed Science

## Harness Max PRE fb POST Application Timings

Trial ID: 18S-TPAC-CORN-03      Location: TPAC      Trial Year: 2018  
 Protocol ID: 18S-TPAC-CORN-03      Investigator: Dr. Bill Johnson  
 Project ID: 2018-01-24-12      Study Director: Dustin Johnson  
 Sponsor Contact: D. Childs - Monsanto

## 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:** Apr-27-2018

## Trial Location

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

**Latitude of LL Corner °:** 40.29174 N  
**Longitude of LL Corner °:** 86.90735 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:** ZEAMX      Zea mays      Corn  
**Variety:** DKC62-52RIB      **BBCH Scale:** BCOR  
**Description:** RR/LL Stacked

**Planting Date:** Apr-27-2018  
**Planting Method:** PLANTD planted  
**Planting Equipment:** PP      plot planter  
**Emergence Date:** May-7-2018

**Planting Rate, Unit:** 32000 S/A  
**Depth, Unit:** 1.5 IN  
**Row Spacing, Unit:** 30 IN  
**Soil Temperature, Unit:** 61 F  
**Soil Moisture:** DRY      dry

## Pest Description

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

## Site and Design

**Treated Plot Width:** 6.67 FT  
**Treated Plot Length:** 30 FT  
**Treated Plot Area:** 200.1 FT2      **Treatments:** 14  
**Replications:** 4

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

## Field Prep./Maintenance:

4/26/18-Farm Applied 180 lbs of N applied as UAN 28-0-0.

# Purdue Weed Science

## Soil Description

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

## Application Description

|                                | A           | B           |
|--------------------------------|-------------|-------------|
| <b>Application Date:</b>       | Apr-27-2018 | May-25-2018 |
| <b>Appl. Start Time:</b>       | 2:00 PM     | 2:10 PM     |
| <b>Appl. Stop Time:</b>        | 2:30 PM     | 2:45 PM     |
| <b>Application Method:</b>     | SPRAY       | SPRAY       |
| <b>Application Timing:</b>     | PREPRE      | POSPOS      |
| <b>Application Placement:</b>  | BROADC      | BROADC      |
| <b>Applied By:</b>             | T. CAMPBELL | D. JOHNSON  |
| <b>Air Temperature, Unit:</b>  | 61 F        | 88 F        |
| <b>% Relative Humidity:</b>    | 39          | 35          |
| <b>Wind Velocity, Unit:</b>    | 10 MPH      | 6 MPH       |
| <b>Wind Direction:</b>         | WNW         | SW          |
| <b>Dew Presence (Y/N):</b>     | N no        | N no        |
| <b>Soil Temperature, Unit:</b> | 61 F        | 72 F        |
| <b>Soil Moisture:</b>          | DRY         | DRY         |
| <b>% Cloud Cover:</b>          | 5           | 20          |

## Crop Stage At Each Application

|                                 | A          | B          |
|---------------------------------|------------|------------|
| <b>Crop 1 Code, BBCH Scale:</b> | ZEAMX BCOR | ZEAMX BCOR |
| <b>Stage Scale Used:</b>        | BBCH       | BBCH       |
| <b>Stage Majority, Percent:</b> | 00         | 14         |
| <b>Stage Minimum, Percent:</b>  | 00         | 13         |
| <b>Stage Maximum, Percent:</b>  | 00         | 13         |
| <b>Height, Unit:</b>            |            | 9.5 IN     |
| <b>Height Minimum, Maximum:</b> |            | 6 10       |

## Pest Stage At Each Application

|                                  | A       | B       |
|----------------------------------|---------|---------|
| <b>Pest 1 Code, Type, Scale:</b> | AMBTR W | AMBTR W |
| <b>Stage Majority, Percent:</b>  |         | 14      |
| <b>Stage Minimum, Percent:</b>   |         | 10      |
| <b>Stage Maximum, Percent:</b>   |         | 19      |
| <b>Height, Unit:</b>             |         | 3.5 IN  |
| <b>Height Minimum, Maximum:</b>  |         | 0.25 10 |
| <b>Density, Unit:</b>            |         | 11 FT2  |

# Purdue Weed Science

## Application Equipment

|                                  | A            | B            |
|----------------------------------|--------------|--------------|
| <b>Appl. Equipment:</b>          | CO2 BACKPACK | CO2 BACKPACK |
| <b>Equipment Type:</b>           | BACSPR       | BACSPR       |
| <b>Operation Pressure, Unit:</b> | 43 PSI       | 24 PSI       |
| <b>Nozzle Type:</b>              | TTI          | FLAFXR       |
| <b>Nozzle Size:</b>              | 110015       | XR11002      |
| <b>Nozzle Spacing, Unit:</b>     | 20 IN        | 20 IN        |
| <b>Nozzles/Row:</b>              | 4            | 4            |
| <b>Boom Length, Unit:</b>        | 6.7 FT       | 6.67 FT      |
| <b>Boom Height, Unit:</b>        | 17 IN        | 17 IN        |
| <b>Ground Speed, Unit:</b>       | 3 MPH        | 3 MPH        |
| <b>Carrier:</b>                  | WATER        | WATER        |
| <b>Spray Volume, Unit:</b>       | 15 GAL/AC    | 15 GAL/AC    |
| <b>Mix Size, Unit:</b>           |              | 1119 mL      |
| <b>Propellant:</b>               |              | COMCO2       |

**Trt No Treatment Application Comment**

8 5/28/18 All treatment 8 plots have 5-10% plants leaning.

**Date By Notes**

Jun-11-2018 D. JOHNSON Evening storm brought hail and damage to crop occurred.

Trial Comments

## Purdue Weed Science

|  |                                       |
|--|---------------------------------------|
| <b>Harness Max PRE fb POST Application Timings</b> |                                       |
| Trial ID: 18S-TPAC-CORN-03                         | Location: TPAC                        |
| Protocol ID: 18S-TPAC-CORN-03                      | Trial Year: 2018                      |
| Project ID: 2018-01-24-12                          | Investigator: Dr. Bill Johnson        |
|  | Study Director: Dustin Johnson        |
|  | Sponsor Contact: D. Childs - Monsanto |

Reps: 4      Plots: 6.67 by 30 feet  
 Spray vol: 15 GAL/AC      Mix Size: 1119 mL (total for 4 plots; minimum=1043.3 mL)

| Trt No.          | Treatment Name      | Form Conc | Form Unit | Form Type | Rate       | Appl Code              | Appl Description       | Amt Product to Measure | Rep |     |     |     |
|------------------|---------------------|-----------|-----------|-----------|------------|------------------------|------------------------|------------------------|-----|-----|-----|-----|
|                  |                     |           |           |           |            |                        |                        |                        | 1   | 2   | 3   | 4   |
| 1                | UNTREATED CHECK     |           |           |           |            |                        |                        |                        | 101 | 405 | 606 | 803 |
| 2                | TRIPLEFLEX II       | 4.25      | LBA/GAL   | EC        | 1 qt/a     | A                      | AT PLANTING            | 18.65 mL/mx            | 102 | 407 | 602 | 807 |
|                  | HARNESSEX MAX       | 3.85      | LBA/GAL   | SE        | 40 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 23.31 mL/mx            |     |     |     |     |
|                  | ROUNDUP POWERMAX    | 4.5       | LBAE/GAL  | SL        | 32 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 18.65 mL/mx            |     |     |     |     |
|                  | N-PAK AMS           | 3.4       | LBA/GAL   | L         | 2.5 % v/v  | B                      | 2-4" WEEDS OR 11" CORN | 27.97 mL/mx            |     |     |     |     |
| 3                | HARNESSEX MAX       | 3.85      | LBA/GAL   | SE        | 64 fl oz/a | A                      | AT PLANTING            | 37.3 mL/mx             | 103 | 403 | 601 | 704 |
|                  | TRIPLEFLEX II       | 4.25      | LBA/GAL   | EC        | 1 qt/a     | B                      | 2-4" WEEDS OR 11" CORN | 18.65 mL/mx            |     |     |     |     |
|                  | ROUNDUP POWERMAX    | 4.5       | LBAE/GAL  | SL        | 32 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 18.65 mL/mx            |     |     |     |     |
|                  | N-PAK AMS           | 3.4       | LBA/GAL   | L         | 2.5 % v/v  | B                      | 2-4" WEEDS OR 11" CORN | 27.97 mL/mx            |     |     |     |     |
| 4                | HARNESSEX XTRA 5.6L | 5.6       | LB/GAL    | SE        | 1.75 qt/a  | A                      | AT PLANTING            | 32.64 mL/mx            | 104 | 302 | 607 | 801 |
|                  | HARNESSEX MAX       | 3.85      | LBA/GAL   | SE        | 40 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 23.31 mL/mx            |     |     |     |     |
|                  | ROUNDUP POWERMAX    | 4.5       | LBAE/GAL  | SL        | 32 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 18.65 mL/mx            |     |     |     |     |
|                  | N-PAK AMS           | 3.4       | LBA/GAL   | L         | 2.5 % v/v  | B                      | 2-4" WEEDS OR 11" CORN | 27.97 mL/mx            |     |     |     |     |
| 5                | HARNESSEX MAX       | 3.85      | LBA/GAL   | SE        | 64 fl oz/a | A                      | AT PLANTING            | 37.3 mL/mx             | 105 | 303 | 505 | 702 |
|                  | HARNESSEX XTRA 5.6L | 5.6       | LB/GAL    | SE        | 1.75 qt/a  | B                      | 2-4" WEEDS OR 11" CORN | 32.64 mL/mx            |     |     |     |     |
|                  | ROUNDUP POWERMAX    | 4.5       | LBAE/GAL  | SL        | 32 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 18.65 mL/mx            |     |     |     |     |
|                  | N-PAK AMS           | 3.4       | LBA/GAL   | L         | 2.5 % v/v  | B                      | 2-4" WEEDS OR 11" CORN | 27.97 mL/mx            |     |     |     |     |
| 6                | HARNESSEX           | 7         | LB/GAL    | EC        | 32 fl oz/a | A                      | AT PLANTING            | 18.65 mL/mx            | 106 | 401 | 603 | 706 |
|                  | HARNESSEX MAX       | 3.85      | LBA/GAL   | SE        | 40 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 23.31 mL/mx            |     |     |     |     |
|                  | ROUNDUP POWERMAX    | 4.5       | LBAE/GAL  | SL        | 32 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 18.65 mL/mx            |     |     |     |     |
|                  | N-PAK AMS           | 3.4       | LBA/GAL   | L         | 2.5 % v/v  | B                      | 2-4" WEEDS OR 11" CORN | 27.97 mL/mx            |     |     |     |     |
| 7                | HARNESSEX MAX       | 3.85      | LBA/GAL   | SE        | 64 fl oz/a | A                      | AT PLANTING            | 37.3 mL/mx             | 107 | 404 | 507 | 805 |
|                  | HARNESSEX           | 7         | LB/GAL    | EC        | 20 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 11.66 mL/mx            |     |     |     |     |
|                  | ROUNDUP POWERMAX    | 4.5       | LBAE/GAL  | SL        | 32 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 18.65 mL/mx            |     |     |     |     |
|                  | N-PAK AMS           | 3.4       | LBA/GAL   | L         | 2.5 % v/v  | B                      | 2-4" WEEDS OR 11" CORN | 27.97 mL/mx            |     |     |     |     |
| 8                | HARNESSEX MAX       | 3.85      | LBA/GAL   | SE        | 64 fl oz/a | A                      | AT PLANTING            | 37.3 mL/mx             | 201 | 306 | 502 | 806 |
|                  | DIFLEXX             | 4         | LB/GAL    | SC        | 16 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 9.325 mL/mx            |     |     |     |     |
|                  | ROUNDUP POWERMAX    | 4.5       | LBAE/GAL  | SL        | 32 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 18.65 mL/mx            |     |     |     |     |
|                  | N-PAK AMS           | 3.4       | LBA/GAL   | L         | 2.5 % v/v  | B                      | 2-4" WEEDS OR 11" CORN | 27.97 mL/mx            |     |     |     |     |
| 9                | HARNESSEX MAX       | 3.85      | LBA/GAL   | SE        | 75 fl oz/a | A                      | AT PLANTING            | 43.71 mL/mx            | 202 | 406 | 503 | 703 |
|                  | AATREX              | 4         | LB/GAL    | L         | 1 qt/a     | A                      | AT PLANTING            | 18.65 mL/mx            |     |     |     |     |
|                  | ROUNDUP POWERMAX    | 4.5       | LBAE/GAL  | SL        | 32 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 18.65 mL/mx            |     |     |     |     |
|                  | N-PAK AMS           | 3.4       | LBA/GAL   | L         | 2.5 % v/v  | B                      | 2-4" WEEDS OR 11" CORN | 27.97 mL/mx            |     |     |     |     |
| 10               | HARNESSEX MAX       | 3.85      | LBA/GAL   | SE        | 55 fl oz/a | A                      | AT PLANTING            | 32.05 mL/mx            | 203 | 301 | 605 | 804 |
|                  | AATREX              | 4         | LB/GAL    | L         | 1 qt/a     | A                      | AT PLANTING            | 18.65 mL/mx            |     |     |     |     |
|                  | ROUNDUP POWERMAX    | 4.5       | LBAE/GAL  | SL        | 32 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 18.65 mL/mx            |     |     |     |     |
|                  | N-PAK AMS           | 3.4       | LBA/GAL   | L         | 2.5 % v/v  | B                      | 2-4" WEEDS OR 11" CORN | 27.97 mL/mx            |     |     |     |     |
| 11               | HARNESSEX MAX       | 3.85      | LBA/GAL   | SE        | 55 fl oz/a | A                      | AT PLANTING            | 32.05 mL/mx            | 204 | 402 | 506 | 802 |
|                  | HARNESSEX MAX       | 3.85      | LBA/GAL   | SE        | 40 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 23.31 mL/mx            |     |     |     |     |
|                  | ROUNDUP POWERMAX    | 4.5       | LBAE/GAL  | SL        | 32 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 18.65 mL/mx            |     |     |     |     |
|                  | N-PAK AMS           | 3.4       | LBA/GAL   | L         | 2.5 % v/v  | B                      | 2-4" WEEDS OR 11" CORN | 27.97 mL/mx            |     |     |     |     |
| 12               | TRIPLEFLEX II       | 4.25      | LBA/GAL   | EC        | 1 qt/a     | A                      | AT PLANTING            | 18.65 mL/mx            | 205 | 304 | 604 | 701 |
|                  | HARNESSEX MAX       | 3.85      | LBA/GAL   | SE        | 40 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 23.31 mL/mx            |     |     |     |     |
|                  | HARNESSEX XTRA 5.6L | 5.6       | LB/GAL    | SE        | 1 qt/a     | B                      | 2-4" WEEDS OR 11" CORN | 18.65 mL/mx            |     |     |     |     |
|                  | ROUNDUP POWERMAX    | 4.5       | LBAE/GAL  | SL        | 32 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 18.65 mL/mx            |     |     |     |     |
| N-PAK AMS LIQUID | 34 %                |           | SL        | 2.5 % v/v | B          | 2-4" WEEDS OR 11" CORN | 27.97 mL/mx            |                        |     |     |     |     |
| 13               | ACURON              | 3.44      | LB/GAL    | ZC        | 1.25 qt/a  | A                      | AT PLANTING            | 23.31 mL/mx            | 206 | 307 | 504 | 705 |
|                  | HALEX GT            | 4.389     | LBAE/GAL  | L         | 1.8 qt/a   | B                      | 2-4" WEEDS OR 11" CORN | 33.57 mL/mx            |     |     |     |     |
|                  | ACTIVATOR 90 NIS    | 100 %     |           | SL        | 0.25 % v/v | B                      | 2-4" WEEDS OR 11" CORN | 2.797 mL/mx            |     |     |     |     |
|                  | N-PAK AMS           | 3.4       | LBA/GAL   | L         | 2.5 % v/v  | B                      | 2-4" WEEDS OR 11" CORN | 27.97 mL/mx            |     |     |     |     |
| 14               | RESICORE            | 3.29      | LB/GAL    | L         | 1.8 qt/a   | A                      | AT PLANTING            | 33.57 mL/mx            | 207 | 305 | 501 | 707 |
|                  | STATUS              | 56 %      |           | DG        | 6.6 oz/a   | B                      | 2-4" WEEDS OR 11" CORN | 3.687 g/mx             |     |     |     |     |
|                  | DURANGO DMA         | 4         | LBAE/GAL  | SL        | 36 fl oz/a | B                      | 2-4" WEEDS OR 11" CORN | 20.98 mL/mx            |     |     |     |     |
|                  | N-PAK AMS           | 3.4       | LBA/GAL   | L         | 2.5 % v/v  | B                      | 2-4" WEEDS OR 11" CORN | 27.97 mL/mx            |     |     |     |     |

## Purdue Weed Science

|  |                                 |
|--|---------------------------------|
| <b>Harness Max PRE fb POST Application Timings</b> |                                 |
| Trial ID: 18S-TPAC-CORN-03                         | Location: TPAC Trial Year: 2018 |
| Protocol ID: 18S-TPAC-CORN-03                      | Investigator: Dr. Bill Johnson  |
| Project ID: 2018-01-24-12                          | Study Director: Dustin Johnson  |
| Sponsor Contact: D. Childs - Monsanto              |                                 |

| Pest Type<br>Pest Code<br>Pest Name                                 | W Weed<br>AMBTR<br>Giant ragweed                            | ZEAMX<br>Corn<br>PLOT - | ZEAMX<br>Corn<br>PLOT - | ZEAMX<br>Corn<br>PLOT - | ZEAMX<br>Corn<br>PLOT - | ZEAMX<br>Corn<br>PLOT - |     |      |
|---|---|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----|------|
| Crop Code   |   | ZEAMX                   | ZEAMX                   | ZEAMX                   | ZEAMX                   | ZEAMX                   |     |      |
| Crop Name   |   | Corn                    | Corn                    | Corn                    | Corn                    | Corn                    |     |      |
| Part Rated  |   | PLOT -                  | PLOT -                  | PLOT -                  | PLOT -                  | PLOT -                  |     |      |
| Rating Date   |   | May-18-2018             | May-18-2018             | May-28-2018             | May-28-2018             | Jun-2-2018              |     |      |
| Rating Type   |   | PHYGEN                  | CONTROL                 | PHYCHL                  | PHYNEC                  | PHYNEC                  |     |      |
| Rating Unit   |   | %                       | %                       | %                       | %                       | %                       |     |      |
| Number of Subsamples  |   | 1                       | 1                       | 1                       | 1                       | 1                       |     |      |
| Assessed By   |   | D. JOHNSON              | D. JOHNSON              | D. JOHNSON              | D. JOHNSON              | D. JOHNSON              |     |      |
| Rating Timing   |   | A1                      | A1                      | A2                      | A2                      | A3                      |     |      |
| Days After First/Last Applic.                                       |   | 21 21                   | 21 21                   | 31 3                    | 31 3                    | 36 8                    |     |      |
| Trt-Eval Interval   |   | 14 DA-A                 | 14 DA-A                 | 14 DA-A                 | 14 DA-A                 | 14 DA-A                 |     |      |
| Days After Emergence  |   | 11 DE-1                 | 11 DE-1                 | 21 DE-1                 | 21 DE-1                 | 26 DE-1                 |     |      |
| ARM Action Codes  |   | P                       | P                       | P                       | P                       | P                       |     |      |
| Number of Decimals  |   | 0                       | 0                       | 0                       | 0                       | 0                       |     |      |
| Trt Treatment<br>No. Name   | Rate<br>Rate Unit   | Appl<br>Code            | 1                       | 2                       | 3                       | 4                       | 5   | 6    |
| 1 UNTREATED CHECK   |   |                         | 0                       | 0                       | 0                       | 0                       | 0   | 0    |
| 2 TRIPLEFLEX II<br>HARNESS MAX<br>ROUNDUP POWERMAX<br>N-PAK AMS     | 1 qt/a A<br>40 fl oz/a B<br>32 fl oz/a B<br>2.5 % v/v B     |                         | 0 -                     | 63 -                    | 0 b                     | 0 b                     | 0 - | 0 b  |
| 3 HARNESS MAX<br>TRIPLEFLEX II<br>ROUNDUP POWERMAX<br>N-PAK AMS     | 64 fl oz/a A<br>1 qt/a B<br>32 fl oz/a B<br>2.5 % v/v B     |                         | 0 -                     | 69 -                    | 0 b                     | 0 b                     | 0 - | 0 b  |
| 4 HARNESS XTRA 5.6L<br>HARNESS MAX<br>ROUNDUP POWERMAX<br>N-PAK AMS | 1.75 qt/a A<br>40 fl oz/a B<br>32 fl oz/a B<br>2.5 % v/v B  |                         | 0 -                     | 71 -                    | 0 b                     | 0 b                     | 0 - | 0 b  |
| 5 HARNESS MAX<br>HARNESS XTRA 5.6L<br>ROUNDUP POWERMAX<br>N-PAK AMS | 64 fl oz/a A<br>1.75 qt/a B<br>32 fl oz/a B<br>2.5 % v/v B  |                         | 0 -                     | 71 -                    | 2 a                     | 13 a                    | 1 - | 18 a |
| 6 HARNESS<br>HARNESS MAX<br>ROUNDUP POWERMAX<br>N-PAK AMS           | 32 fl oz/a A<br>40 fl oz/a B<br>32 fl oz/a B<br>2.5 % v/v B |                         | 0 -                     | 57 -                    | 0 b                     | 0 b                     | 0 - | 0 b  |
| 7 HARNESS MAX<br>HARNESS<br>ROUNDUP POWERMAX<br>N-PAK AMS           | 64 fl oz/a A<br>20 fl oz/a B<br>32 fl oz/a B<br>2.5 % v/v B |                         | 0 -                     | 73 -                    | 0 b                     | 0 b                     | 0 - | 0 b  |
| 8 HARNESS MAX<br>DIFLEXX<br>ROUNDUP POWERMAX<br>N-PAK AMS           | 64 fl oz/a A<br>16 fl oz/a B<br>32 fl oz/a B<br>2.5 % v/v B |                         | 0 -                     | 67 -                    | 0 b                     | 0 b                     | 0 - | 0 b  |
| 9 HARNESS MAX<br>AATREX<br>ROUNDUP POWERMAX<br>N-PAK AMS            | 75 fl oz/a A<br>1 qt/a A<br>32 fl oz/a B<br>2.5 % v/v B     |                         | 0 -                     | 69 -                    | 0 b                     | 0 b                     | 0 - | 0 b  |
| 10 HARNESS MAX<br>AATREX<br>ROUNDUP POWERMAX<br>N-PAK AMS           | 55 fl oz/a A<br>1 qt/a A<br>32 fl oz/a B<br>2.5 % v/v B     |                         | 0 -                     | 69 -                    | 0 b                     | 0 b                     | 0 - | 0 b  |

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.  
 Untreated treatment(s) 1 excluded from analysis.  
 Could not calculate LSD (% mean diff) for columns 10,15 because error mean square = 0.

# Purdue Weed Science

| Trt No.            | Treatment Name  | Rate  | Appl Code | 1       | 2        | 3       | 4       | 5        | 6       |
|--------------------|---|---|-----------|---------|----------|---------|---------|----------|---------|
| 11                 | HARNESS MAX<br>HARNESS MAX<br>ROUNDUP POWERMAX<br>N-PAK AMS                               | 55 fl oz/a A<br>40 fl oz/a B<br>32 fl oz/a B<br>2.5 % v/v B         |           | 0 -     | 65 -     | 0 b     | 0 b     | 0 -      | 0 b     |
| 12                 | TRIPLEFLEX II<br>HARNESS MAX<br>HARNESS XTRA 5.6L<br>ROUNDUP POWERMAX<br>N-PAK AMS LIQUID | 1 qt/a A<br>40 fl oz/a B<br>1 qt/a B<br>32 fl oz/a B<br>2.5 % v/v B |           | 0 -     | 73 -     | 2 a     | 13 a    | 2 -      | 18 a    |
| 13                 | ACURON<br>HALEX GT<br>ACTIVATOR 90 NIS<br>N-PAK AMS                                       | 1.25 qt/a A<br>1.8 qt/a B<br>0.25 % v/v B<br>2.5 % v/v B            |           | 0 -     | 58 -     | 0 b     | 0 b     | 0 -      | 0 b     |
| 14                 | RESICORE<br>STATUS<br>DURANGO DMA<br>N-PAK AMS  | 1.8 qt/a A<br>6.6 oz/a B<br>36 fl oz/a B<br>2.5 % v/v B             |           | 1 -     | 70 -     | 0 b     | 0 b     | 0 -      | 0 b     |
| LSD P=.05          |   |   |           | 0.4     | 15.7     | 0.6     | 1.5     | 1.0      | 2.9     |
| Standard Deviation |   |   |           | 0.3     | 10.9     | 0.4     | 1.1     | 0.7      | 2.0     |
| CV                 |   |   |           | 721.11  | 16.25    | 172.31  | 54.05   | 312.25   | 74.84   |
| Levene's F         |   |   |           |         | 1.203    | 0.00    | 37.667  | 4.417    | 14.00   |
| Levene's Prob(F)   |   |   |           |         | 0.315    | 0.00*   | 0.001*  | 0.001*   | 0.001*  |
| Skewness           |   |   |           | 7.2111* | -2.9354* | 2.4798* | 2.1316* | 4.6663*  | 2.2518* |
| Kurtosis           |   |   |           | 52.0*   | 10.2966* | 4.3141* | 2.9062* | 24.7724* | 3.6739* |
| Replicate F        |   |   |           | 1.000   | 1.758    | 0.649   | 0.753   | 1.481    | 0.316   |
| Replicate Prob(F)  |   |   |           | 0.4040  | 0.1726   | 0.5889  | 0.5279  | 0.2359   | 0.8138  |
| Treatment F        |   |   |           | 1.000   | 0.961    | 8.027   | 81.627  | 1.963    | 42.553  |
| Treatment Prob(F)  |   |   |           | 0.4685  | 0.5018   | 0.0001  | 0.0001  | 0.0588   | 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.  
Untreated treatment(s) 1 excluded from analysis.  
Could not calculate LSD (% mean diff) for columns 10,15 because error mean square = 0.

## Purdue Weed Science

| Pest Type<br>Pest Code<br>Pest Name | W Weed<br>AMBTR<br>Giant ragweed                                  | W Weed<br>SETFA<br>Giant foxtail                            | W Weed<br>ECHSS<br>Barnyardgrass |             |             | W Weed<br>AMBTR<br>Giant ragweed |     |     |       |
|-------------------------------------|---|---|----------------------------------|-------------|-------------|----------------------------------|-----|-----|-------|
| Crop Code                           | ZEAMX   | ZEAMX   | ZEAMX                            | ZEAMX       | ZEAMX       | ZEAMX                            |     |     |       |
| Crop Name                           | Corn  | Corn  | Corn                             | Corn        | Corn        | Corn                             |     |     |       |
| Part Rated                          | PLOT -  | PLOT -  | PLOT -                           | PLOT -      | PLOT -      | PLOT -                           |     |     |       |
| Rating Date                         | Jun-2-2018  | Jun-2-2018  | Jun-2-2018                       | Jun-11-2018 | Jun-11-2018 | Jun-11-2018                      |     |     |       |
| Rating Type                         | CONTROL   | CONTROL   | CONTROL                          | PHYCHL      | PHYNEC      | CONTROL                          |     |     |       |
| Rating Unit                         | %   | %   | %                                | %           | %           | %                                |     |     |       |
| Number of Subsamples                | 1   | 1   | 1                                | 1           | 1           | 1                                |     |     |       |
| Assessed By                         | D. JOHNSON  | D. JOHNSON  | D. JOHNSON                       | D. JOHNSON  | D. JOHNSON  | D. JOHNSON                       |     |     |       |
| Rating Timing                       | A3  | A3  | A3                               | A4          | A4          | A4                               |     |     |       |
| Days After First/Last Applic.       | 36 8  | 36 8  | 36 8                             | 45 17       | 45 17       | 45 17                            |     |     |       |
| Trt-Eval Interval                   | 14 DA-A   | 14 DA-A   | 14 DA-A                          | 14 DA-A     | 14 DA-A     | 14 DA-A                          |     |     |       |
| Days After Emergence                | 26 DE-1   | 26 DE-1   | 26 DE-1                          | 35 DE-1     | 35 DE-1     | 35 DE-1                          |     |     |       |
| ARM Action Codes                    | P   | P   | P                                | P           | P           | P                                |     |     |       |
| Number of Decimals                  | 0   | 0   | 0                                | 0           | 0           | 0                                |     |     |       |
| Trt No.                             | Treatment Name  | Rate  | Appl Code                        | 7           | 8           | 9                                | 10  | 11  | 12    |
| 1                                   | UNTREATED CHECK   |   |                                  | 0           | 0           | 0                                | 0   | 0   | 0     |
| 2                                   | TRIPLEFLEX II<br>HARNESS MAX<br>ROUNDUP POWERMAX<br>N-PAK AMS     | 1 qt/a A<br>40 fl oz/a B<br>32 fl oz/a B<br>2.5 % v/v B     |                                  | 30 f        | 0 c         | 0 d                              | 0 - | 0 b | 21 d  |
| 3                                   | HARNESS MAX<br>TRIPLEFLEX II<br>ROUNDUP POWERMAX<br>N-PAK AMS     | 64 fl oz/a A<br>1 qt/a B<br>32 fl oz/a B<br>2.5 % v/v B     |                                  | 89 ab       | 100 a       | 96 a                             | 0 - | 0 b | 92 ab |
| 4                                   | HARNESS XTRA 5.6L<br>HARNESS MAX<br>ROUNDUP POWERMAX<br>N-PAK AMS | 1.75 qt/a A<br>40 fl oz/a B<br>32 fl oz/a B<br>2.5 % v/v B  |                                  | 90 ab       | 100 a       | 96 a                             | 0 - | 0 b | 94 a  |
| 5                                   | HARNESS MAX<br>HARNESS XTRA 5.6L<br>ROUNDUP POWERMAX<br>N-PAK AMS | 64 fl oz/a A<br>1.75 qt/a B<br>32 fl oz/a B<br>2.5 % v/v B  |                                  | 87 abc      | 100 a       | 92 a                             | 0 - | 9 a | 94 a  |
| 6                                   | HARNESS<br>HARNESS MAX<br>ROUNDUP POWERMAX<br>N-PAK AMS           | 32 fl oz/a A<br>40 fl oz/a B<br>32 fl oz/a B<br>2.5 % v/v B |                                  | 87 abc      | 99 a        | 92 a                             | 0 - | 0 b | 92 ab |
| 7                                   | HARNESS MAX<br>HARNESS<br>ROUNDUP POWERMAX<br>N-PAK AMS           | 64 fl oz/a A<br>20 fl oz/a B<br>32 fl oz/a B<br>2.5 % v/v B |                                  | 81 cde      | 100 a       | 99 a                             | 0 - | 0 b | 88 bc |
| 8                                   | HARNESS MAX<br>DIFLEXX<br>ROUNDUP POWERMAX<br>N-PAK AMS           | 64 fl oz/a A<br>16 fl oz/a B<br>32 fl oz/a B<br>2.5 % v/v B |                                  | 91 a        | 100 a       | 93 a                             | 0 - | 0 b | 92 ab |
| 9                                   | HARNESS MAX<br>AATREX<br>ROUNDUP POWERMAX<br>N-PAK AMS            | 75 fl oz/a A<br>1 qt/a A<br>32 fl oz/a B<br>2.5 % v/v B     |                                  | 80 de       | 100 a       | 97 a                             | 0 - | 0 b | 83 c  |
| 10                                  | HARNESS MAX<br>AATREX<br>ROUNDUP POWERMAX<br>N-PAK AMS            | 55 fl oz/a A<br>1 qt/a A<br>32 fl oz/a B<br>2.5 % v/v B     |                                  | 77 e        | 100 a       | 99 a                             | 0 - | 0 b | 85 c  |

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.

Untreated treatment(s) 1 excluded from analysis.

Could not calculate LSD (% mean diff) for columns 10,15 because error mean square = 0.

# Purdue Weed Science

| Pest Type                     | W Weed              | W Weed        | W Weed        |             |             | W Weed        |        |         |          |
|-------------------------------|---------------------|---------------|---------------|-------------|-------------|---------------|--------|---------|----------|
| Pest Code                     | AMBTR               | SETFA         | ECHSS         |             |             | AMBTR         |        |         |          |
| Pest Name                     | Giant ragweed       | Giant foxtail | Barnyardgrass |             |             | Giant ragweed |        |         |          |
| Crop Code                     | ZEAMX               | ZEAMX         | ZEAMX         | ZEAMX       | ZEAMX       | ZEAMX         |        |         |          |
| Crop Name                     | Corn                | Corn          | Corn          | Corn        | Corn        | Corn          |        |         |          |
| Part Rated                    | PLOT -              | PLOT -        | PLOT -        | PLOT -      | PLOT -      | PLOT -        |        |         |          |
| Rating Date                   | Jun-2-2018          | Jun-2-2018    | Jun-2-2018    | Jun-11-2018 | Jun-11-2018 | Jun-11-2018   |        |         |          |
| Rating Type                   | CONTROL             | CONTROL       | CONTROL       | PHYCHL      | PHYNEC      | CONTROL       |        |         |          |
| Rating Unit                   | %                   | %             | %             | %           | %           | %             |        |         |          |
| Number of Subsamples          | 1                   | 1             | 1             | 1           | 1           | 1             |        |         |          |
| Assessed By                   | D. JOHNSON          | D. JOHNSON    | D. JOHNSON    | D. JOHNSON  | D. JOHNSON  | D. JOHNSON    |        |         |          |
| Rating Timing                 | A3                  | A3            | A3            | A4          | A4          | A4            |        |         |          |
| Days After First/Last Applic. | 36 8                | 36 8          | 36 8          | 45 17       | 45 17       | 45 17         |        |         |          |
| Trt-Eval Interval             | 14 DA-A             | 14 DA-A       | 14 DA-A       | 14 DA-A     | 14 DA-A     | 14 DA-A       |        |         |          |
| Days After Emergence          | 26 DE-1             | 26 DE-1       | 26 DE-1       | 35 DE-1     | 35 DE-1     | 35 DE-1       |        |         |          |
| ARM Action Codes              | P                   | P             | P             | P           | P           | P             |        |         |          |
| Number of Decimals            | 0                   | 0             | 0             | 0           | 0           | 0             |        |         |          |
| Trt No.                       | Treatment Name      | Rate          | Appl          | 7           | 8           | 9             | 10     | 11      | 12       |
|                               |                     | Rate Unit     | Code          |             |             |               |        |         |          |
| 11                            | HARNESSEX MAX       | 55 fl oz/a    | A             | 92 a        | 100 a       | 96 a          | 0 -    | 0 b     | 94 a     |
|                               | HARNESSEX MAX       | 40 fl oz/a    | B             |             |             |               |        |         |          |
|                               | ROUNDUP POWERMAX    | 32 fl oz/a    | B             |             |             |               |        |         |          |
|                               | N-PAK AMS           | 2.5 % v/v     | B             |             |             |               |        |         |          |
| 12                            | TRIPLEFLEX II       | 1 qt/a        | A             | 92 a        | 98 a        | 79 b          | 0 -    | 11 a    | 96 a     |
|                               | HARNESSEX MAX       | 40 fl oz/a    | B             |             |             |               |        |         |          |
|                               | HARNESSEX XTRA 5.6L | 1 qt/a        | B             |             |             |               |        |         |          |
|                               | ROUNDUP POWERMAX    | 32 fl oz/a    | B             |             |             |               |        |         |          |
|                               | N-PAK AMS LIQUID    | 2.5 % v/v     | B             |             |             |               |        |         |          |
| 13                            | ACURON              | 1.25 qt/a     | A             | 84 bcd      | 73 b        | 56 c          | 0 -    | 0 b     | 91 ab    |
|                               | HALEX GT            | 1.8 qt/a      | B             |             |             |               |        |         |          |
|                               | ACTIVATOR 90 NIS    | 0.25 % v/v    | B             |             |             |               |        |         |          |
|                               | N-PAK AMS           | 2.5 % v/v     | B             |             |             |               |        |         |          |
| 14                            | RESICORE            | 1.8 qt/a      | A             | 90 ab       | 100 a       | 94 a          | 0 -    | 0 b     | 93 ab    |
|                               | STATUS              | 6.6 oz/a      | B             |             |             |               |        |         |          |
|                               | DURANGO DMA         | 36 fl oz/a    | B             |             |             |               |        |         |          |
|                               | N-PAK AMS           | 2.5 % v/v     | B             |             |             |               |        |         |          |
| LSD P=.05                     |                     | 6.5           |               | 6.5         | 9.0         | 11.6          | .      | 1.7     | 5.5      |
| Standard Deviation            |                     | 4.5           |               | 4.5         | 6.3         | 8.1           | 0.0    | 1.2     | 3.9      |
| CV                            |                     | 5.52          |               | 5.52        | 7.01        | 9.66          | 0.0    | 78.57   | 4.5      |
| Levene's F                    |                     | 2.142         |               | 2.142       | 1.709       | 3.583         | 0.00   | 4.19    | 0.36     |
| Levene's Prob(F)              |                     | 0.036*        |               | 0.036*      | 0.102       | 0.001*        | 0.00*  | 0.001*  | 0.97     |
| Skewness                      |                     | -2.4591*      |               | -2.4591*    | -2.8534*    | -2.3627*      | .      | 2.3354* | -2.9206* |
| Kurtosis                      |                     | 6.0722*       |               | 6.0722*     | 6.7817*     | 4.5726*       | .      | 4.3295* | 7.5805*  |
| Replicate F                   |                     | 9.413         |               | 9.413       | 0.755       | 0.380         | 0.000  | 0.240   | 1.762    |
| Replicate Prob(F)             |                     | 0.0001        |               | 0.0001      | 0.5267      | 0.7679        | 1.0000 | 0.8679  | 0.1719   |
| Treatment F                   |                     | 52.208        |               | 52.208      | 79.272      | 46.888        | 0.000  | 38.880  | 104.499  |
| Treatment Prob(F)             |                     | 0.0001        |               | 0.0001      | 0.0001      | 0.0001        | 1.0000 | 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.  
 Untreated treatment(s) 1 excluded from analysis.  
 Could not calculate LSD (% mean diff) for columns 10,15 because error mean square = 0.



## Purdue Weed Science

| Pest Type<br>Pest Code<br>Pest Name   | W Weed<br>SETFA<br>Giant foxtail  | W Weed<br>ECHSS<br>Barnyardgrass  | W Weed<br>AMBTR<br>Giant ragweed   | W Weed<br>SETFA<br>Giant foxtail  | W Weed<br>ECHSS<br>Barnyardgrass  |        |       |       |
|---|---|---|--|---|---|--------|-------|-------|
| Crop Code<br>Crop Name<br>Part Rated<br>Rating Date<br>Rating Type<br>Rating Unit<br>Number of Subsamples<br>Assessed By              | ZEAMX<br>Corn<br>PLOT -<br>Jun-11-2018<br>CONTROL<br>%<br>1<br>D. JOHNSON | ZEAMX<br>Corn<br>PLOT -<br>Jun-11-2018<br>CONTROL<br>%<br>1<br>D. JOHNSON | ZEAMX<br>Corn<br>PLOT -<br>Jun-22-2018<br>PHYGEN<br>%<br>1<br>D. JOHNSON | ZEAMX<br>Corn<br>PLOT -<br>Jun-22-2018<br>CONTROL<br>%<br>1<br>D. JOHNSON | ZEAMX<br>Corn<br>PLOT -<br>Jun-22-2018<br>CONTROL<br>%<br>1<br>D. JOHNSON |        |       |       |
| Rating Timing<br>Days After First/Last Applic.<br>Trt-Eval Interval<br>Days After Emergence<br>ARM Action Codes<br>Number of Decimals | A4<br>45 17<br>14 DA-A<br>35 DE-1<br>P<br>0                               | A4<br>45 17<br>14 DA-A<br>35 DE-1<br>P<br>0                               | A5<br>56 28<br>14 DA-A<br>46 DE-1<br>P<br>0                              | A5<br>56 28<br>14 DA-A<br>46 DE-1<br>P<br>0                               | A5<br>56 28<br>14 DA-A<br>46 DE-1<br>P<br>0                               |        |       |       |
| Trt Treatment<br>No. Name   | Rate<br>Rate Unit   | Appl<br>Code  | 13   | 14  | 15  | 16     | 17    | 18    |
| 1 UNTREATED CHECK   |   |   | 0  | 0   | 0   | 0      | 0     | 0     |
| 2 TRIPLEFLEX II<br>HARNESS MAX<br>ROUNDUP POWERMAX<br>N-PAK AMS   | 1 qt/a A<br>40 fl oz/a B<br>32 fl oz/a B<br>2.5 % v/v B                   |   | 0 c  | 0 c   | 0 -   | 20 e   | 0 c   | 0 c   |
| 3 HARNESS MAX<br>TRIPLEFLEX II<br>ROUNDUP POWERMAX<br>N-PAK AMS   | 64 fl oz/a A<br>1 qt/a B<br>32 fl oz/a B<br>2.5 % v/v B                   |   | 100 a  | 100 a   | 0 -   | 87 abc | 100 a | 100 a |
| 4 HARNESS XTRA 5.6L<br>HARNESS MAX<br>ROUNDUP POWERMAX<br>N-PAK AMS   | 1.75 qt/a A<br>40 fl oz/a B<br>32 fl oz/a B<br>2.5 % v/v B                |   | 100 a  | 99 a  | 0 -   | 87 abc | 100 a | 99 a  |
| 5 HARNESS MAX<br>HARNESS XTRA 5.6L<br>ROUNDUP POWERMAX<br>N-PAK AMS   | 64 fl oz/a A<br>1.75 qt/a B<br>32 fl oz/a B<br>2.5 % v/v B                |   | 100 a  | 100 a   | 0 -   | 88 abc | 100 a | 100 a |
| 6 HARNESS<br>HARNESS MAX<br>ROUNDUP POWERMAX<br>N-PAK AMS   | 32 fl oz/a A<br>40 fl oz/a B<br>32 fl oz/a B<br>2.5 % v/v B               |   | 100 a  | 100 a   | 0 -   | 87 abc | 100 a | 100 a |
| 7 HARNESS MAX<br>HARNESS<br>ROUNDUP POWERMAX<br>N-PAK AMS   | 64 fl oz/a A<br>20 fl oz/a B<br>32 fl oz/a B<br>2.5 % v/v B               |   | 100 a  | 100 a   | 0 -   | 86 abc | 100 a | 100 a |
| 8 HARNESS MAX<br>DIFLEXX<br>ROUNDUP POWERMAX<br>N-PAK AMS   | 64 fl oz/a A<br>16 fl oz/a B<br>32 fl oz/a B<br>2.5 % v/v B               |   | 100 a  | 100 a   | 0 -   | 83 bcd | 100 a | 100 a |
| 9 HARNESS MAX<br>AATREX<br>ROUNDUP POWERMAX<br>N-PAK AMS  | 75 fl oz/a A<br>1 qt/a A<br>32 fl oz/a B<br>2.5 % v/v B                   |   | 100 a  | 100 a   | 0 -   | 81 cd  | 100 a | 100 a |
| 10 HARNESS MAX<br>AATREX<br>ROUNDUP POWERMAX<br>N-PAK AMS   | 55 fl oz/a A<br>1 qt/a A<br>32 fl oz/a B<br>2.5 % v/v B                   |   | 100 a  | 100 a   | 0 -   | 78 d   | 100 a | 100 a |

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.

Untreated treatment(s) 1 excluded from analysis.

Could not calculate LSD (% mean diff) for columns 10,15 because error mean square = 0.

## Purdue Weed Science

| Pest Type                     | W Weed              | W Weed        |             | W Weed        | W Weed        | W Weed        |          |          |          |
|-------------------------------|---------------------|---------------|-------------|---------------|---------------|---------------|----------|----------|----------|
| Pest Code                     | SETFA               | ECHSS         |             | AMBTR         | SETFA         | ECHSS         |          |          |          |
| Pest Name                     | Giant foxtail       | Barnyardgrass |             | Giant ragweed | Giant foxtail | Barnyardgrass |          |          |          |
| Crop Code                     | ZEAMX               | ZEAMX         | ZEAMX       | ZEAMX         | ZEAMX         | ZEAMX         |          |          |          |
| Crop Name                     | Corn                | Corn          | Corn        | Corn          | Corn          | Corn          |          |          |          |
| Part Rated                    | PLOT -              | PLOT -        | PLOT -      | PLOT -        | PLOT -        | PLOT -        |          |          |          |
| Rating Date                   | Jun-11-2018         | Jun-11-2018   | Jun-22-2018 | Jun-22-2018   | Jun-22-2018   | Jun-22-2018   |          |          |          |
| Rating Type                   | CONTROL             | CONTROL       | PHYGEN      | CONTROL       | CONTROL       | CONTROL       |          |          |          |
| Rating Unit                   | %                   | %             | %           | %             | %             | %             |          |          |          |
| Number of Subsamples          | 1                   | 1             | 1           | 1             | 1             | 1             |          |          |          |
| Assessed By                   | D. JOHNSON          | D. JOHNSON    | D. JOHNSON  | D. JOHNSON    | D. JOHNSON    | D. JOHNSON    |          |          |          |
| Rating Timing                 | A4                  | A4            | A5          | A5            | A5            | A5            |          |          |          |
| Days After First/Last Applic. | 45 17               | 45 17         | 56 28       | 56 28         | 56 28         | 56 28         |          |          |          |
| Trt-Eval Interval             | 14 DA-A             | 14 DA-A       | 14 DA-A     | 14 DA-A       | 14 DA-A       | 14 DA-A       |          |          |          |
| Days After Emergence          | 35 DE-1             | 35 DE-1       | 46 DE-1     | 46 DE-1       | 46 DE-1       | 46 DE-1       |          |          |          |
| ARM Action Codes              | P                   | P             | P           | P             | P             | P             |          |          |          |
| Number of Decimals            | 0                   | 0             | 0           | 0             | 0             | 0             |          |          |          |
| Trt No.                       | Treatment Name      | Rate          | Appl Code   | 13            | 14            | 15            | 16       | 17       | 18       |
| 11                            | HARNESSEX MAX       | 55 fl oz/a    | A           | 100 a         | 100 a         | 0 -           | 90 ab    | 100 a    | 100 a    |
|                               | HARNESSEX MAX       | 40 fl oz/a    | B           |               |               |               |          |          |          |
|                               | ROUNDUP POWERMAX    | 32 fl oz/a    | B           |               |               |               |          |          |          |
|                               | N-PAK AMS           | 2.5 % v/v     | B           |               |               |               |          |          |          |
| 12                            | TRIPLEFLEX II       | 1 qt/a        | A           | 100 a         | 99 a          | 0 -           | 91 a     | 100 a    | 100 a    |
|                               | HARNESSEX MAX       | 40 fl oz/a    | B           |               |               |               |          |          |          |
|                               | HARNESSEX XTRA 5.6L | 1 qt/a        | B           |               |               |               |          |          |          |
|                               | ROUNDUP POWERMAX    | 32 fl oz/a    | B           |               |               |               |          |          |          |
|                               | N-PAK AMS LIQUID    | 2.5 % v/v     | B           |               |               |               |          |          |          |
| 13                            | ACURON              | 1.25 qt/a     | A           | 90 b          | 76 b          | 0 -           | 88 abc   | 88 b     | 74 b     |
|                               | HALEX GT            | 1.8 qt/a      | B           |               |               |               |          |          |          |
|                               | ACTIVATOR 90 NIS    | 0.25 % v/v    | B           |               |               |               |          |          |          |
|                               | N-PAK AMS           | 2.5 % v/v     | B           |               |               |               |          |          |          |
| 14                            | RESICORE            | 1.8 qt/a      | A           | 95 ab         | 98 a          | 0 -           | 88 abc   | 95 a     | 98 a     |
|                               | STATUS              | 6.6 oz/a      | B           |               |               |               |          |          |          |
|                               | DURANGO DMA         | 36 fl oz/a    | B           |               |               |               |          |          |          |
|                               | N-PAK AMS           | 2.5 % v/v     | B           |               |               |               |          |          |          |
| LSD P=.05                     |                     | 6.0           |             | 6.0           | 7.3           | .             | 7.2      | 5.6      | 6.5      |
| Standard Deviation            |                     | 4.2           |             | 4.2           | 5.1           | 0.0           | 5.0      | 3.9      | 4.6      |
| CV                            |                     | 4.6           |             | 4.6           | 5.68          | 0.0           | 6.18     | 4.32     | 5.07     |
| Levene's F                    |                     | 1.984         |             | 1.984         | 2.866         | 0.00          | 0.937    | 2.381    | 1.777    |
| Levene's Prob(F)              |                     | 0.053         |             | 0.053         | 0.006*        | 0.00*         | 0.521    | 0.02*    | 0.087    |
| Skewness                      |                     | -3.1254*      |             | -3.1254*      | -2.9134*      | .             | -2.7466* | -3.1078* | -2.8849* |
| Kurtosis                      |                     | 8.353*        |             | 8.353*        | 7.2591*       | .             | 6.8902*  | 8.2747*  | 7.1162*  |
| Replicate F                   |                     | 0.352         |             | 0.352         | 0.386         | 0.000         | 2.672    | 0.450    | 0.300    |
| Replicate Prob(F)             |                     | 0.7883        |             | 0.7883        | 0.7639        | 1.0000        | 0.0620   | 0.7186   | 0.8249   |
| Treatment F                   |                     | 172.785       |             | 172.785       | 118.477       | 0.000         | 55.679   | 197.103  | 150.091  |
| Treatment Prob(F)             |                     | 0.0001        |             | 0.0001        | 0.0001        | 1.0000        | 0.0001   | 0.0001   | 0.0001   |

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)  
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 Untreated treatment(s) 1 excluded from analysis.  
 Could not calculate LSD (% mean diff) for columns 10,15 because error mean square = 0.

## Purdue Weed Science

| Trt No. | Treatment Name    | Rate       | Appl Unit | Code | 19     | 20    | 21    |
|---------|-------------------|------------|-----------|------|--------|-------|-------|
| 1       | UNTREATED CHECK   |            |           |      | 0      | 0     | 0     |
| 2       | TRIPLEFLEX II     | 1 qt/a     | A         |      | 13 d   | 0 c   | 0 c   |
|         | HARNESS MAX       | 40 fl oz/a | B         |      |        |       |       |
|         | ROUNDUP POWERMAX  | 32 fl oz/a | B         |      |        |       |       |
|         | N-PAK AMS         | 2.5 % v/v  | B         |      |        |       |       |
| 3       | HARNESS MAX       | 64 fl oz/a | A         |      | 88 abc | 100 a | 100 a |
|         | TRIPLEFLEX II     | 1 qt/a     | B         |      |        |       |       |
|         | ROUNDUP POWERMAX  | 32 fl oz/a | B         |      |        |       |       |
|         | N-PAK AMS         | 2.5 % v/v  | B         |      |        |       |       |
| 4       | HARNESS XTRA 5.6L | 1.75 qt/a  | A         |      | 85 abc | 100 a | 100 a |
|         | HARNESS MAX       | 40 fl oz/a | B         |      |        |       |       |
|         | ROUNDUP POWERMAX  | 32 fl oz/a | B         |      |        |       |       |
|         | N-PAK AMS         | 2.5 % v/v  | B         |      |        |       |       |
| 5       | HARNESS MAX       | 64 fl oz/a | A         |      | 84 abc | 100 a | 100 a |
|         | HARNESS XTRA 5.6L | 1.75 qt/a  | B         |      |        |       |       |
|         | ROUNDUP POWERMAX  | 32 fl oz/a | B         |      |        |       |       |
|         | N-PAK AMS         | 2.5 % v/v  | B         |      |        |       |       |
| 6       | HARNESS           | 32 fl oz/a | A         |      | 84 abc | 100 a | 100 a |
|         | HARNESS MAX       | 40 fl oz/a | B         |      |        |       |       |
|         | ROUNDUP POWERMAX  | 32 fl oz/a | B         |      |        |       |       |
|         | N-PAK AMS         | 2.5 % v/v  | B         |      |        |       |       |
| 7       | HARNESS MAX       | 64 fl oz/a | A         |      | 82 bc  | 100 a | 100 a |
|         | HARNESS           | 20 fl oz/a | B         |      |        |       |       |
|         | ROUNDUP POWERMAX  | 32 fl oz/a | B         |      |        |       |       |
|         | N-PAK AMS         | 2.5 % v/v  | B         |      |        |       |       |
| 8       | HARNESS MAX       | 64 fl oz/a | A         |      | 83 abc | 98 a  | 98 a  |
|         | DIFLEXX           | 16 fl oz/a | B         |      |        |       |       |
|         | ROUNDUP POWERMAX  | 32 fl oz/a | B         |      |        |       |       |
|         | N-PAK AMS         | 2.5 % v/v  | B         |      |        |       |       |
| 9       | HARNESS MAX       | 75 fl oz/a | A         |      | 84 abc | 98 a  | 98 a  |
|         | AATREX            | 1 qt/a     | A         |      |        |       |       |
|         | ROUNDUP POWERMAX  | 32 fl oz/a | B         |      |        |       |       |
|         | N-PAK AMS         | 2.5 % v/v  | B         |      |        |       |       |
| 10      | HARNESS MAX       | 55 fl oz/a | A         |      | 78 c   | 98 a  | 98 a  |
|         | AATREX            | 1 qt/a     | A         |      |        |       |       |
|         | ROUNDUP POWERMAX  | 32 fl oz/a | B         |      |        |       |       |
|         | N-PAK AMS         | 2.5 % v/v  | B         |      |        |       |       |

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## Purdue Weed Science

| Pest Type                     | W Weed        | W Weed        | W Weed        |
|-------------------------------|---------------|---------------|---------------|
| Pest Code                     | AMBTR         | SETFA         | ECHSS         |
| Pest Name                     | Giant ragweed | Giant foxtail | Barnyardgrass |
| Crop Code                     | ZEAMX         | ZEAMX         | ZEAMX         |
| Crop Name                     | Corn          | Corn          | Corn          |
| Part Rated                    | PLOT -        | PLOT -        | PLOT -        |
| Rating Date                   | Jul-19-2018   | Jul-19-2018   | Jul-19-2018   |
| Rating Type                   | CONTROL       | CONTROL       | CONTROL       |
| Rating Unit                   | %             | %             | %             |
| Number of Subsamples          | 1             | 1             | 1             |
| Assessed By                   | D. JOHNSON    | D. JOHNSON    | D. JOHNSON    |
| Rating Timing                 | A6            | A6            | A6            |
| Days After First/Last Applic. | 83 55         | 83 55         | 83 55         |
| Trt-Eval Interval             | 14 DA-A       | 14 DA-A       | 14 DA-A       |
| Days After Emergence          | 73 DE-1       | 73 DE-1       | 73 DE-1       |
| ARM Action Codes              | P             | P             | P             |
| Number of Decimals            | 0             | 0             | 0             |
| Trt Treatment                 | Rate          | Appl          |               |
| No. Name                      | Rate Unit     | Code          |               |
|                               |               |               | 19            |
|                               |               |               | 20            |
|                               |               |               | 21            |
| 11 HARNESS MAX                | 55 fl oz/a    | A             | 93 a          |
| HARNESS MAX                   | 40 fl oz/a    | B             |               |
| ROUNDUP POWERMAX              | 32 fl oz/a    | B             |               |
| N-PAK AMS                     | 2.5 % v/v     | B             |               |
| 12 TRIPLEFLEX II              | 1 qt/a        | A             | 92 ab         |
| HARNESS MAX                   | 40 fl oz/a    | B             |               |
| HARNESS XTRA 5.6L             | 1 qt/a        | B             |               |
| ROUNDUP POWERMAX              | 32 fl oz/a    | B             |               |
| N-PAK AMS LIQUID              | 2.5 % v/v     | B             |               |
| 13 ACURON                     | 1.25 qt/a     | A             | 90 ab         |
| HALEX GT                      | 1.8 qt/a      | B             |               |
| ACTIVATOR 90 NIS              | 0.25 % v/v    | B             |               |
| N-PAK AMS                     | 2.5 % v/v     | B             |               |
| 14 RESICORE                   | 1.8 qt/a      | A             | 86 abc        |
| STATUS                        | 6.6 oz/a      | B             |               |
| DURANGO DMA                   | 36 fl oz/a    | B             |               |
| N-PAK AMS                     | 2.5 % v/v     | B             |               |
| LSD P=.05                     | 10.7          | 6.5           | 5.6           |
| Standard Deviation            | 7.5           | 4.5           | 3.9           |
| CV                            | 9.35          | 4.99          | 4.33          |
| Levene's F                    | 0.636         | 3.305         | 1.023         |
| Levene's Prob(F)              | 0.798         | 0.002*        | 0.447         |
| Skewness                      | -2.6424*      | -3.0469*      | -2.9371*      |
| Kurtosis                      | 6.7034*       | 7.9858*       | 7.4339*       |
| Replicate F                   | 3.073         | 1.037         | 0.170         |
| Replicate Prob(F)             | 0.0399        | 0.3878        | 0.9159        |
| Treatment F                   | 30.585        | 148.346       | 203.640       |
| Treatment Prob(F)             | 0.0001        | 0.0001        | 0.0001        |

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 Could not calculate LSD (% mean diff) for columns 10,15 because error mean square = 0.

# Purdue Weed Science

## Harness Max PRE fb POST Application Timings

Trial ID: 18S-TPAC-CORN-03      Location: TPAC      Trial Year: 2018  
Protocol ID: 18S-TPAC-CORN-03      Investigator: Dr. Bill Johnson  
Project ID: 2018-01-24-12      Study Director: Dustin Johnson  
Sponsor Contact: D. Childs - Monsanto

Pest Type

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

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

SETFA, Setaria faberi, Giant foxtail = US

ECHSS, Echinochloa sp., Barnyardgrass = US

Crop Code

ZEAMX, BCOR, Zea mays, Corn = US

Part Rated

PLOT = plot

Rating Type

PHYGEN = phytotoxicity - general / injury

PHYCHL = phytotoxicity - chlorosis

PHYNEC = phytotoxicity - necrosis /burn

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

A6 = 6th Assessment according to Trial Schedule

ARM Action Codes

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