

The Ohio State University

BAYER Preemergence Corn Herbicide Efficacy Tolerance

Trial ID: 17BAYERPRE Location: Western Branch Big E Trial Year: 2017
 Protocol ID: 17BEYERPRE Investigator: Dr. Mark M. Loux
 Project ID: HP17USAWMZ Study Director: Anthony Dobbels
 Sponsor Contact: David Lamore, Bayer CropScience

General Trial Information

Study Director: Anthony Dobbels
Investigator: Dr. Mark M. Loux

Trial Location

City: South Charleston **Country:** USA United States
State/Prov.: Ohio
Postal Code: 45368 **Climate Zone:** USWARM US Warm Continental

Latitude of LL Corner °: 39.85709 N
Longitude of LL Corner °: 83.6701 W
Altitude of LL Corner, Unit: 1090.00 FT
Conducted Under GLP: No
Conducted Under GEP: No
No.

Contacts

Study Director: Anthony Dobbels
Investigator: Dr. Mark M. Loux
Organization: The Ohio State University
Address: 2021 Coffey Road
City+State/Prov: Columbus, Ohio
Postal Code: 43210
Country: USA United States

Cooperator/Landowner

Other Contacts

Crop Description

Crop 1: ZEAMX Zea mays Corn
Variety: SC10AQ96
Description: Seed Consultants RR/LL

Planting Rate, Unit: 32097 S/A
Depth, Unit: 1.5 IN
Row Spacing, Unit: 30 IN

Planting Date: 4-25-2017
Planting Method: PLANTD planted
Planting Equipment: FPP Finger Pickup Planter
Emergence Date: 5-10-2017

Soil Temperature, Unit: 56 F
Soil Moisture: DRY dry
Seed Bed: MEDIUM medium

Pest Description

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

Pest 2 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail

Pest 3 Type: W **Code:** CHEAL Chenopodium album
Common Name: common lambsquarters

Pest 4 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyard grass

Pest 5 Type: W **Code:** ABUTH Abutilon theophrasti
Common Name: velvetleaf

Pest 6 Type: W **Code:** AMARE Amaranthus retroflexus
Common Name: Redroot pigweed

Pest 7 Type: W **Code:** HIBTR Hibiscus trionum
Common Name: Venice mallow

Site and Design

Treated Plot Width: 6.67 FT
Treated Plot Length: 30 FT
Treated Plot Area: 200.1 FT² **Treatments:** 10
Replications: 4
No. Previous Crop Year
 1. Soybean 2016

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CON
Study Design: RACOB L Randomized Complete Block (RCB)

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Maintenance

No.

Soil Description

Description Name: Big E

| | |
|------------|-------------------------------|
| % OM: 2.8 | Texture: SICL silty clay loam |
| pH: 5.9 | Soil Name: Kokomo |
| CEC: 17.44 | Fert. Level: G good |
| | Soil Drainage: G good |

Additional Measured Elements

Application Description

| | A | B |
|------------------------------|-----------|-----------|
| Application Date: | 4-25-2017 | 5-19-2017 |
| Appl. Start Time: | 12:30 PM | 9:30 AM |
| Appl. Stop Time: | 1:00 PM | 9:50 AM |
| Application Method: | SPRAY | SPRAY |
| Application Timing: | PRE | EPO |
| Application Placement: | BROSOL | BROFOL |
| Air Temperature, Unit: | 72 F | 77 F |
| % Relative Humidity: | 55 | 67 |
| Wind Velocity, Unit: | 7 MPH | 1.5 MPH |
| Wind Direction: | ESE | SE |
| Dew Presence (Y/N): | N no | N no |
| Soil Temperature, Unit: | 56 F | 68 F |
| Soil Moisture: | DRY | VERWET |
| % Cloud Cover: | 5 | 30 |
| Next Moisture Occurred On: | 4-27-2017 | 5-19-2017 |
| Time to Next Moisture, Unit: | 2 DAY | 8 HR |

Crop Stage At Each Application

| | A | B |
|--------------------------|------------|------------|
| Crop 1 Code, BBCH Scale: | ZEAMX BCOR | ZEAMX BCOR |
| Stage Scale Used: | | BBCH |
| Stage Majority, Percent: | | 12 100 |
| Height, Unit: | | 3.5 IN |
| Height Minimum, Maximum: | | 3 4.5 |

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Pest Stage At Each Application

| | A | | B | |
|----------------------------------|-------|---|-------|-----|
| Pest 1 Code, Type, Scale: | AMBTR | W | AMBTR | W |
| Stage Majority, Percent: | | | 14 | 100 |
| Height, Unit: | | | 3 | IN |
| Height Minimum, Maximum: | | | 2 | 4 |
| Density, Unit: | | | 4.1 | M2 |
| Pest 2 Code, Type, Scale: | SETFA | W | SETFA | W |
| Stage Majority, Percent: | | | 11 | 100 |
| Height, Unit: | | | 1 | IN |
| Height Minimum, Maximum: | | | 0.5 | 2 |
| Density, Unit: | | | 102 | M2 |
| Pest 3 Code, Type, Scale: | CHEAL | W | CHEAL | W |
| Stage Majority, Percent: | | | 12 | 100 |
| Height, Unit: | | | 1 | IN |
| Height Minimum, Maximum: | | | 0.5 | 1 |
| Density, Unit: | | | 13 | M2 |
| Pest 4 Code, Type, Scale: | ECHCG | W | ECHCG | W |
| Density, Unit: | | | 102 | m2 |
| Pest 5 Code, Type, Scale: | ABUTH | W | ABUTH | W |
| Density, Unit: | | | 4 | m2 |
| Pest 6 Code, Type, Scale: | AMARE | W | AMARE | W |
| Density, Unit: | | | 1 | m2 |
| Pest 7 Code, Type, Scale: | HIBTR | W | HIBTR | W |
| Density, Unit: | | | 3 | m2 |

Application Equipment

| | A | | B | |
|----------------------------------|-----------|--------|-----------|--------|
| Appl. Equipment: | 10' AI XR | | 10' AI XR | |
| Equipment Type: | SPRBAC | | SPRBAC | |
| Operation Pressure, Unit: | 46 | PSI | 46 | PSI |
| Nozzle Type: | AI XR | | AI XR | |
| Nozzle Size: | 110015 | | 110015 | |
| Nozzle Spacing, Unit: | 18 | IN | 18 | IN |
| Boom Length, Unit: | 10 | FT | 10 | FT |
| Boom Height, Unit: | 20 | IN | 20 | IN |
| Ground Speed, Unit: | 3 | MPH | 3 | MPH |
| Carrier: | WATER | | WATER | |
| Spray Volume, Unit: | 15 | GPA | 15 | GPA |
| Mix Size, Unit: | 2 | Liters | 2 | Liters |
| Propellant: | CO2 | | CO2 | |

Trt No Treatment Application Comment

Date By Notes

No. Date By Deviations

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| Pest Type | | W Weed | W Weed | W Weed | W Weed | W Weed | | | | |
|-------------------------------|------------|---------------|----------------|-----------------|------------|-----------------|----------|----------|----------|---------|
| Pest Code | | SETFA | AMBTR | CHEAL | ABUTH | IPOHE | | | | |
| Pest Name | | Giant foxtail | Giant ragweed | common lambsqu> | velvetleaf | ivy-leaf morni> | | | | |
| Crop Code | | ZEAMX | ZEAMX | | | | | | | |
| Crop Name | | Corn | Corn | | | | | | | |
| Rating Date | | 5-18-2017 | 5-24-2017 | 5-24-2017 | 5-24-2017 | 5-24-2017 | | | | |
| Rating Type | | PHYGEN | PHYGEN | CONTROL | CONTROL | CONTROL | | | | |
| Rating Unit | | % | % | % | % | % | | | | |
| Number of Subsamples | | 1 | 1 | 1 | 1 | 1 | | | | |
| Rating Timing | | 7 DAE | | | | | | | | |
| Days After First/Last Applic. | | 23 23 | 29 5 | 29 5 | 29 5 | 29 5 | | | | |
| Trt-Eval Interval | | -1 DA-B | 29 DA-A | 29 DA-A | 29 DA-A | 29 DA-A | | | | |
| Days After Emergence | | 8 DE-1 | 14 DE-1 | 14 DE-1 | 14 DE-1 | 14 DE-1 | | | | |
| Number of Decimals | | 0 | 0 | 0 | 0 | 0 | | | | |
| Trt Treatment No. Name | Other Rate | Other Rate | Appl Unit Code | 1* | 2* | 3* | 4* | 5* | 6* | 7* |
| 1 Untreated | | | | 0 - | 0 b | 0 e | 0 e | 0 e | 0 e | 0 e |
| 2 Corvus | 4 oz/a | | A | 0 - | 1 b | 97 a | 79 bc | 100 a | 100 a | 100 a |
| 2 Atrazine | 16 oz/a | | A | | | | | | | |
| 3 Corvus | 5.6 oz/a | | A | 0 - | 0 b | 99 a | 95 a | 100 a | 100 a | 100 a |
| 3 Atrazine | 16 oz/a | | A | | | | | | | |
| 4 Acuron | 48 oz/a | | A | 1 - | 3 b | 92 a | 83 bc | 100 a | 100 a | 100 a |
| 5 Acuron | 96 oz/a | | A | 0 - | 0 b | 99 a | 74 bc | 100 a | 100 a | 96 a |
| 6 Resicore | 2 qt/a | | A | 0 - | 2 b | 100 a | 71 c | 100 a | 100 a | 100 a |
| 6 Atrazine | 16 oz/a | | A | | | | | | | |
| 7 Resicore | 3 qt/a | | A | 0 - | 9 a | 100 a | 85 ab | 100 a | 100 a | 96 a |
| 7 Atrazine | 16 oz/a | | A | | | | | | | |
| 8 Corvus | 4 oz/a | | B | 0 - | 8 a | 30 d | 30 d | 30 d | 30 d | 30 d |
| 8 Roundup PowerMax | 12 oz/a | | B | | | | | | | |
| 8 Atrazine | 16 oz/a | | B | | | | | | | |
| 9 Acuron | 48 oz/a | | B | 0 - | 1 b | 46 c | 38 d | 48 c | 48 c | 48 c |
| 9 Roundup PowerMax | 12 oz/a | | B | | | | | | | |
| 10 Resicore | 3 qt/a | | B | 0 - | 11 a | 74 b | 73 c | 74 b | 74 b | 73 b |
| 10 Roundup PowerMax | 12 oz/a | | B | | | | | | | |
| 10 Atrazine | 16 oz/a | | B | | | | | | | |
| LSD P=.05 | | | | 1.1 | 4.2 | 15.1 | 11.8 | 16.3 | 16.3 | 17.4 |
| Standard Deviation | | | | 0.8 | 2.9 | 10.4 | 8.2 | 11.2 | 11.2 | 11.9 |
| CV | | | | 632.46 | 82.34 | 14.12 | 13.04 | 14.98 | 14.98 | 16.09 |
| Bartlett's X2 | | | | 0.0 | 7.97 | 41.721 | 10.967 | 7.295 | 7.295 | 14.505 |
| P(Bartlett's X2) | | | | . | 0.24 | 0.001* | 0.14 | 0.007* | 0.007* | 0.002* |
| Skewness | | | | 6.3246* | 1.0339* | -1.0635* | -0.8536* | -1.0497* | -1.0497* | -1.033* |
| Kurtosis | | | | 40.0* | -0.432 | -0.4596 | -0.307 | -0.5722 | -0.5722 | -0.571 |
| Replicate F | | | | 1.000 | 4.139 | 1.741 | 5.661 | 1.083 | 1.083 | 0.752 |
| Replicate Prob(F) | | | | 0.4079 | 0.0155 | 0.1823 | 0.0038 | 0.3737 | 0.3737 | 0.5312 |
| Treatment F | | | | 1.000 | 8.430 | 47.715 | 54.132 | 42.834 | 42.834 | 36.816 |
| Treatment Prob(F) | | | | 0.4635 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |

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

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

Due to missing data, larger LSD values (col. 5: >=16.3 and <=16.3) are used for mean comparisons of treatment pairs with missing data.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 11,12,17,18,23,24,26 because error mean square = 0.

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| Pest Type | W Weed | W Weed | W Weed | W Weed | W Weed | W Weed | | | | |
|-------------------------------|-------------------------------|------------|-----------------------|----------------|------------|-----------------|----------|----------|----------|----------|
| Pest Code | ECHCG | SETFA | AMBTR | CHEAL | ABUTH | IPOHE | | | | |
| Pest Name | Common barnyar> Giant foxtail | | Giant common lambsqu> | ragweed | velvetleaf | ivy-leaf morni> | | | | |
| Crop Code | 6-8-2017 | | 6-8-2017 | 6-8-2017 | 6-8-2017 | 6-8-2017 | | | | |
| Crop Name | CONTROL | | CONTROL | CONTROL | CONTROL | CONTROL | | | | |
| Rating Date | 6-8-2017 | | 6-8-2017 | 6-8-2017 | 6-8-2017 | 6-8-2017 | | | | |
| Rating Type | CONTROL | | CONTROL | CONTROL | CONTROL | CONTROL | | | | |
| Rating Unit | % | | % | % | % | % | | | | |
| Number of Subsamples | 1 | | 1 | 1 | 1 | 1 | | | | |
| Rating Timing | 44 20 | | 44 20 | 44 20 | 44 20 | 44 20 | | | | |
| Days After First/Last Applic. | 20 DA-B | | 20 DA-B | 20 DA-B | 20 DA-B | 20 DA-B | | | | |
| Trt-Eval Interval | 29 DE-1 | | 29 DE-1 | 29 DE-1 | 29 DE-1 | 29 DE-1 | | | | |
| Days After Emergence | 0 | | 0 | 0 | 0 | 0 | | | | |
| Number of Decimals | 0 | | 0 | 0 | 0 | 0 | | | | |
| Trt No. | Treatment Name | Other Rate | Other Rate | Appl Unit Code | 8* | 9* | 10* | 11* | 12* | 13* |
| 1 | Untreated | | | | 0 d | 0 c | 0 e | 0 b | 0 b | 0 b |
| 2 | Corvus | 4 oz/a | | A | 80 c | 75 b | 68 cd | 100 a | 100 a | 100 a |
| 2 | Atrazine | 16 oz/a | | A | | | | | | |
| 3 | Corvus | 5.6 oz/a | | A | 97 a | 94 a | 84 b | 100 a | 100 a | 100 a |
| 3 | Atrazine | 16 oz/a | | A | | | | | | |
| 4 | Acuron | 48 oz/a | | A | 88 bc | 76 b | 69 c | 100 a | 100 a | 95 a |
| 5 | Acuron | 96 oz/a | | A | 98 a | 96 a | 76 bc | 100 a | 100 a | 100 a |
| 6 | Resicore | 2 qt/a | | A | 93 ab | 93 a | 58 d | 100 a | 100 a | 100 a |
| 6 | Atrazine | 16 oz/a | | A | | | | | | |
| 7 | Resicore | 3 qt/a | | A | 99 a | 99 a | 75 bc | 100 a | 100 a | 96 a |
| 7 | Atrazine | 16 oz/a | | A | | | | | | |
| 8 | Corvus | 4 oz/a | | B | 95 ab | 91 a | 74 bc | 100 a | 100 a | 94 a |
| 8 | Roundup PowerMax | 12 oz/a | | B | | | | | | |
| 8 | Atrazine | 16 oz/a | | B | | | | | | |
| 9 | Acuron | 48 oz/a | | B | 100 a | 99 a | 69 c | 100 a | 100 a | 100 a |
| 9 | Roundup PowerMax | 12 oz/a | | B | | | | | | |
| 10 | Resicore | 3 qt/a | | B | 100 a | 100 a | 95 a | 100 a | 100 a | 96 a |
| 10 | Roundup PowerMax | 12 oz/a | | B | | | | | | |
| 10 | Atrazine | 16 oz/a | | B | | | | | | |
| LSD P=.05 | | | | | 7.5 | 10.1 | 11.2 | . | . | 7.9 |
| Standard Deviation | | | | | 5.2 | 7.0 | 7.7 | 0.0 | 0.0 | 5.4 |
| CV | | | | | 6.11 | 8.47 | 11.54 | 0.0 | 0.0 | 6.17 |
| Bartlett's X2 | | | | | 27.463 | 28.627 | 7.676 | 0.0 | 0.0 | 0.39 |
| P(Bartlett's X2) | | | | | 0.001* | 0.001* | 0.466 | . | . | 0.942 |
| Skewness | | | | | -2.4826* | -2.2027* | -1.7074* | -2.7717* | -2.7717* | -2.6362* |
| Kurtosis | | | | | 4.8484* | 3.7464* | 2.696* | 5.9791* | 5.9791* | 5.4683* |
| Replicate F | | | | | 1.436 | 3.677 | 1.391 | 0.000 | 0.000 | 0.077 |
| Replicate Prob(F) | | | | | 0.2540 | 0.0243 | 0.2668 | 1.0000 | 1.0000 | 0.9717 |
| Treatment F | | | | | 138.088 | 75.435 | 43.915 | 0.000 | 0.000 | 130.332 |
| Treatment Prob(F) | | | | | 0.0001 | 0.0001 | 0.0001 | 1.0000 | 1.0000 | 0.0001 |

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| Pest Type | W Weed | W Weed | W Weed | W Weed | W Weed | W Weed | | | | |
|-------------------------------|------------------|-----------------|-----------------------|----------------|----------------------------|-----------|----------|----------|----------|----------|
| Pest Code | SETFA | ECHCG | AMBTR | CHEAL | ABUTH | IPOHE | | | | |
| Pest Name | Giant foxtail | Common barnyar> | Giant common lambsqu> | ragweed | velvetleaf ivy-leaf morni> | | | | | |
| Crop Code | | | | | | | | | | |
| Crop Name | | | | | | | | | | |
| Rating Date | 6-21-2017 | 6-21-2017 | 6-21-2017 | 6-21-2017 | 6-21-2017 | 6-21-2017 | | | | |
| Rating Type | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL | | | | |
| Rating Unit | % | % | % | % | % | % | | | | |
| Number of Subsamples | 1 | 1 | 1 | 1 | 1 | 1 | | | | |
| Rating Timing | | | | | | | | | | |
| Days After First/Last Applic. | 57 33 | 57 33 | 57 33 | 57 33 | 57 33 | 57 33 | | | | |
| Trt-Eval Interval | 33 DA-B | 33 DA-B | 33 DA-B | 33 DA-B | 33 DA-B | 33 DA-B | | | | |
| Days After Emergence | 42 DE-1 | 42 DE-1 | 42 DE-1 | 42 DE-1 | 42 DE-1 | 42 DE-1 | | | | |
| Number of Decimals | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Trt No. | Treatment Name | Other Rate | Other Rate | Appl Unit Code | 14* | 15* | 16* | 17* | 18* | 19* |
| 1 | Untreated | | | | 0 f | 0 f | 0 e | 0 b | 0 b | 0 c |
| 2 | Corvus | 4 oz/a | | A | 69 e | 69 e | 53 cd | 100 a | 100 a | 100 a |
| 2 | Atrazine | 16 oz/a | | A | | | | | | |
| 3 | Corvus | 5.6 oz/a | | A | 82 cd | 82 cd | 79 ab | 100 a | 100 a | 100 a |
| 3 | Atrazine | 16 oz/a | | A | | | | | | |
| 4 | Acuron | 48 oz/a | | A | 70 e | 70 e | 55 cd | 100 a | 100 a | 90 ab |
| 5 | Acuron | 96 oz/a | | A | 91 ab | 91 ab | 68 bcd | 100 a | 100 a | 95 ab |
| 6 | Resicore | 2 qt/a | | A | 80 cd | 80 cd | 50 d | 100 a | 100 a | 80 b |
| 6 | Atrazine | 16 oz/a | | A | | | | | | |
| 7 | Resicore | 3 qt/a | | A | 87 abc | 87 abc | 65 bcd | 100 a | 100 a | 96 ab |
| 7 | Atrazine | 16 oz/a | | A | | | | | | |
| 8 | Corvus | 4 oz/a | | B | 76 de | 76 de | 69 abc | 100 a | 100 a | 88 ab |
| 8 | Roundup PowerMax | 12 oz/a | | B | | | | | | |
| 8 | Atrazine | 16 oz/a | | B | | | | | | |
| 9 | Acuron | 48 oz/a | | B | 85 bcd | 85 bcd | 58 cd | 100 a | 100 a | 83 ab |
| 9 | Roundup PowerMax | 12 oz/a | | B | | | | | | |
| 10 | Resicore | 3 qt/a | | B | 95 a | 95 a | 86 a | 100 a | 100 a | 85 ab |
| 10 | Roundup PowerMax | 12 oz/a | | B | | | | | | |
| 10 | Atrazine | 16 oz/a | | B | | | | | | |
| LSD P=.05 | | | | | 9.1 | 9.1 | 17.5 | . | . | 18.5 |
| Standard Deviation | | | | | 6.3 | 6.3 | 12.1 | 0.0 | 0.0 | 12.8 |
| CV | | | | | 8.54 | 8.54 | 20.75 | 0.0 | 0.0 | 15.66 |
| Bartlett's X2 | | | | | 10.221 | 10.221 | 13.729 | 0.0 | 0.0 | 3.577 |
| P(Bartlett's X2) | | | | | 0.25 | 0.25 | 0.089 | | | 0.734 |
| Skewness | | | | | -2.1179* | -2.1179* | -1.1537* | -2.7717* | -2.7717* | -1.9728* |
| Kurtosis | | | | | 3.7775* | 3.7775* | 0.7869 | 5.9791* | 5.9791* | 3.0562* |
| Replicate F | | | | | 0.693 | 0.693 | 0.691 | 0.000 | 0.000 | 0.626 |
| Replicate Prob(F) | | | | | 0.5645 | 0.5645 | 0.5652 | 1.0000 | 1.0000 | 0.6044 |
| Treatment F | | | | | 75.114 | 75.114 | 15.119 | 0.000 | 0.000 | 21.352 |
| Treatment Prob(F) | | | | | 0.0001 | 0.0001 | 0.0001 | 1.0000 | 1.0000 | 0.0001 |

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| Pest Type | W Weed | W Weed | W Weed | W Weed | W Weed | W Weed | | | | |
|-------------------------------|--|------------|----------------|----------|----------|----------|----------|----------|----------|----|
| Pest Code | SETFA | ECHCG | AMBTR | CHEAL | ABUTH | IPOHE | | | | |
| Pest Name | Giant foxtail Common barnyar> Giant ragweed common lambsqu> velvetleaf ivy-leaf morni> | | | | | | | | | |
| Crop Code | | | | | | | | | | |
| Crop Name | | | | | | | | | | |
| Rating Date | 7-5-2017 | 7-5-2017 | 7-5-2017 | 7-5-2017 | 7-5-2017 | 7-5-2017 | | | | |
| Rating Type | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL | | | | |
| Rating Unit | % | % | % | % | % | % | | | | |
| Number of Subsamples | 1 | 1 | 1 | 1 | 1 | 1 | | | | |
| Rating Timing | | | | | | | | | | |
| Days After First/Last Applic. | 71 47 | 71 47 | 71 47 | 71 47 | 71 47 | 71 47 | | | | |
| Trt-Eval Interval | 47 DA-B | 47 DA-B | 47 DA-B | 47 DA-B | 47 DA-B | 47 DA-B | | | | |
| Days After Emergence | 56 DE-1 | 56 DE-1 | 56 DE-1 | 56 DE-1 | 56 DE-1 | 56 DE-1 | | | | |
| Number of Decimals | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Trt Treatment No. Name | Other Rate | Other Rate | Appl Unit Code | 20* | 21* | 22* | 23* | 24* | 25* | 26 |
| 1 Untreated | | | | 0 d | 0 d | 0 e | 0 b | 0 b | 0 c | |
| 2 Corvus | 4 oz/a | | A | 70 c | 68 c | 48 d | 100 a | 100 a | 100 a | |
| 2 Atrazine | 16 oz/a | | A | | | | | | | |
| 3 Corvus | 5.6 oz/a | | A | 80 ab | 80 ab | 85 a | 100 a | 100 a | 95 ab | |
| 3 Atrazine | 16 oz/a | | A | | | | | | | |
| 4 Acuron | 48 oz/a | | A | 72 bc | 72 bc | 60 cd | 100 a | 100 a | 100 a | |
| 5 Acuron | 96 oz/a | | A | 85 a | 84 a | 66 bc | 100 a | 100 a | 100 a | |
| 6 Resicore | 2 qt/a | | A | 84 a | 85 a | 48 d | 100 a | 100 a | 93 ab | |
| 6 Atrazine | 16 oz/a | | A | | | | | | | |
| 7 Resicore | 3 qt/a | | A | 84 a | 84 a | 55 cd | 100 a | 100 a | 100 a | |
| 7 Atrazine | 16 oz/a | | A | | | | | | | |
| 8 Corvus | 4 oz/a | | B | 80 ab | 80 ab | 64 cd | 100 a | 100 a | 95 ab | |
| 8 Roundup PowerMax | 12 oz/a | | B | | | | | | | |
| 8 Atrazine | 16 oz/a | | B | | | | | | | |
| 9 Acuron | 48 oz/a | | B | 88 a | 88 a | 59 cd | 100 a | 100 a | 94 ab | |
| 9 Roundup PowerMax | 12 oz/a | | B | | | | | | | |
| 10 Resicore | 3 qt/a | | B | 88 a | 89 a | 82 ab | 100 a | 100 a | 86 b | |
| 10 Roundup PowerMax | 12 oz/a | | B | | | | | | | |
| 10 Atrazine | 16 oz/a | | B | | | | | | | |
| LSD P=.05 | | | | 9.1 | 10.0 | 18.4 | . | . | 11.1 | . |
| Standard Deviation | | | | 6.3 | 6.9 | 12.7 | 0.0 | 0.0 | 7.6 | . |
| CV | | | | 8.56 | 9.48 | 22.37 | 0.0 | 0.0 | 8.84 | . |
| Bartlett's X2 | | | | 16.853 | 18.403 | 7.956 | 0.0 | 0.0 | 2.42 | . |
| P(Bartlett's X2) | | | | 0.032* | 0.018* | 0.438 | . | . | 0.659 | . |
| Skewness | | | | -2.3045* | -2.2404* | -0.8216* | -2.7717* | -2.7717* | -2.4388* | . |
| Kurtosis | | | | 4.3145* | 4.0251* | 0.5185 | 5.9791* | 5.9791* | 4.7007* | . |
| Replicate F | | | | 1.600 | 1.699 | 1.040 | 0.000 | 0.000 | 1.963 | |
| Replicate Prob(F) | | | | 0.2125 | 0.1908 | 0.3905 | 1.0000 | 1.0000 | 0.1433 | |
| Treatment F | | | | 71.346 | 58.791 | 13.858 | 0.000 | 0.000 | 64.538 | |
| Treatment Prob(F) | | | | 0.0001 | 0.0001 | 0.0001 | 1.0000 | 1.0000 | 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.
 Due to missing data, larger LSD values (col. 5: >=16.3 and <=16.3) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 11,12,17,18,23,24,26 because error mean square = 0.

The Ohio State University

BAYER Preemergence Corn Herbicide Efficacy Tolerance

Trial ID: 17BAYERPRE
Protocol ID: 17BEYERPRE
Project ID: HP17USAWMZ

Location: Western Branch Big E
Investigator: Dr. Mark M. Loux
Study Director: Anthony Dobbels
Sponsor Contact: David Lamore, Bayer CropScience

Trial Year: 2017

Pest Type

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

Pest Code

SETFA, Setaria faberi, Giant foxtail = US
AMBTR, Ambrosia trifida, Giant ragweed = US
CHEAL, Chenopodium album, common lambsquarters = US
ABUTH, Abutilon theophrasti, velvetleaf = US
IPOHE, Ipomoea hederacea, ivy-leaf morning glory = US
ECHCG, Echinochloa crus-galli, Common barnyard grass = US

Crop Code

ZEAMX, BCOR, Zea mays, Corn = US

Rating Type

PHYGEN = phytotoxicity - general / injury

Rating Unit

% = percent