

Ohio State University Horticulture and Crop Science

Application Description

| | A | B |
|-------------------------|-----------|-----------|
| Application Date: | 5/31/11 | 6/21/11 |
| Time of Day: | 11:15 A.M | 11:45 A.M |
| Application Method: | SPRAY | SPRAY |
| Application Timing: | PRE | POST |
| Application Placement: | BROSOI | BROFOL |
| Applied By: | Reeb | |
| Air Temperature, Unit: | 89.9 F | 87 F |
| % Relative Humidity: | 62.1 | 71 |
| Wind Velocity, Unit: | 3.8 MPH | 5 MPH |
| Wind Direction: | SSW | SW |
| Dew Presence (Y/N): | N no | N no |
| Soil Temperature, Unit: | 72 F | 74 F |
| Soil Moisture: | GOOD | SLIWET |
| % Cloud Cover: | 2 | 40 |
| Next Rain Occurred On: | 6/3/11 | 6/21/11 |

Crop Stage At Each Application

| | A | B |
|--------------------------|------------|------------|
| Crop 1 Code, BBCH Scale: | ZEAMX BCOR | ZEAMX BCOR |
| Stage Scale Used: | | BBCH |
| Stage Majority, Percent: | | 16 100 |
| Height, Unit: | | 12 IN |
| Height Minimum, Maximum: | | 11 12 |

Pest Stage At Each Application

| | A | B |
|---------------------------|-----------|-----------|
| Pest 1 Code, Type, Scale: | SETFA W | SETFA W |
| Stage Majority, Percent: | | 15 100 |
| Height, Unit: | | 6 IN |
| Height Minimum, Maximum: | | 4 6 |
| Density, Unit: | 761.33 M2 | 761.33 M2 |
| Pest 2 Code, Type, Scale: | AMBTR W | AMBTR W |
| Stage Majority, Percent: | | 18 90 |
| Stage Minimum, Percent: | | 14 10 |
| Stage Maximum, Percent: | | 18 90 |
| Height, Unit: | | 4 IN |
| Height Minimum, Maximum: | | 2 6 |
| Density, Unit: | 9.33 M2 | 9.33 M2 |
| Pest 3 Code, Type, Scale: | ABUTH W | ABUTH W |
| Stage Majority, Percent: | | 14 100 |
| Height, Unit: | | 6 IN |
| Height Minimum, Maximum: | | 4 6 |
| Density, Unit: | 4 M2 | 4 M2 |
| Pest 4 Code, Type, Scale: | IPOHE W | IPOHE W |
| Stage Majority, Percent: | | 14 100 |
| Height, Unit: | | 3 IN |
| Height Minimum, Maximum: | | 2 3 |
| Density, Unit: | 2.66 M2 | 2.66 M2 |
| Pest 5 Code, Type, Scale: | XANST W | XANST W |
| Stage Majority, Percent: | | 14 100 |
| Height, Unit: | | 6 IN |
| Height Minimum, Maximum: | | 6 6 |
| Pest 6 Code, Type, Scale: | CHEAL W | CHEAL W |
| Density, Unit: | 9.33 M2 | 9.33 M2 |
| Pest 7 Code, Type, Scale: | AMARE W | AMARE W |
| Density, Unit: | 10.66 M2 | 10.66 M2 |
| Pest 8 Code, Type, Scale: | POLPY W | POLPY W |
| Density, Unit: | 5.33 M2 | 5.33 M2 |
| Pest 9 Code, Type, Scale: | ECHCG W | ECHCG W |
| Density, Unit: | 52 M2 | 52 M2 |

Application Equipment

| | A | B |
|---------------------------|--------------|--------------|
| Appl. Equipment: | 6 foot boom | 6 foot boom |
| Equipment Type: | SPRBAC | SPRBAC |
| Operating Pressure, Unit: | 46 PSI | 46 PSI |
| Nozzle Type: | TEEJET DG | TEEJET DG |
| Nozzle Size: | 80015 | 80015 |
| Nozzle Spacing, Unit: | 18 IN | 18 IN |
| Boom Length, Unit: | 6 FT | 6 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: | 0.33 Gallons | 0.33 Gallons |
| Propellant: | CO2 | CO2 |

Ohio State University Horticulture and Crop Science

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Preemergence Mixtures of Rimsulfuron and Dry Mesotrione Weed Control in Corn

Title No. 2:

Trial ID: 11PREC1
Location: WESTERN BRANCH F-8
Project ID: USA-11-006

Protocol ID: 11PREC1
Study Director: Anthony F. Dobbels
Investigator: Dr. Mark M. Loux
Sponsor Contact: Marsha Martin, DuPont

| Pest Type | W Weed | W Weed | W Weed | W Weed | W Weed |
|-------------------------------|----------------|------------------|----------------------|----------------------|-------------------------|
| Pest Code | SETFA | AMBTR | ABUTH | CHEAL | AMARE |
| Pest Scientific Name | Setaria faberi | Ambrosia trifida | Abutilon theophrasti | Chenopodium album | Amaranthus retrofractus |
| Pest Name | Giant foxtail | Giant ragweed | Velvetleaf | Common lambsquarters | Redroot pigweed |
| Crop Code | ZEAMX | | | | |
| BBCH Scale | BCOR | | | | |
| Crop Scientific Name | Zea mays | | | | |
| Crop Name | Corn | | | | |
| Rating Date | 6/13/11 | 6/13/11 | 6/13/11 | 6/13/11 | 6/13/11 |
| Rating Type | PHYGEN | CONTRO | CONTRO | CONTRO | CONTRO |
| Rating Unit | % | % | % | % | % |
| Number of Subsamples | 1 | 1 | 1 | 1 | 1 |
| Days After First/Last Applic. | 13 13 | 13 13 | 13 13 | 13 13 | 13 13 |
| Trt-Eval Interval | 13 DA-A | 13 DA-A | 13 DA-A | 13 DA-A | 13 DA-A |
| Plant-Eval Interval | 13 DP-1 | 13 DP-1 | 13 DP-1 | 13 DP-1 | 13 DP-1 |
| Days After Emergence | 7 DE-1 | 7 DE-1 | 7 DE-1 | 7 DE-1 | 7 DE-1 |
| Number of Decimals | 0 | 0 | 0 | 0 | 0 |

| Trt No. | Treatment Name | Form Conc | Other Rate | Other Rate | Appl Unit Code | 1 | 2 | 3 | 4 | 5 | 6 |
|---------|----------------|-----------|------------|------------|----------------|---|----|----|-----|-----|-----|
| 1 | Rimsulfuron | 25 | 1 oz/a | | A | 0 | 63 | 37 | 93 | 72 | 58 |
| 1 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 2 | Rimsulfuron | 25 | 1.5 oz/a | | A | 0 | 65 | 55 | 80 | 73 | 50 |
| 2 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 3 | Rimsulfuron | 25 | 1 oz/a | | A | 0 | 63 | 37 | 90 | 100 | 90 |
| 3 | Thifensulfuron | 50 | 0.5 oz/a | | A | | | | | | |
| 3 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 4 | Rimsulfuron | 25 | 1 oz/a | | A | 0 | 60 | 50 | 95 | 100 | 100 |
| 4 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 4 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 5 | Rimsulfuron | 25 | 1.5 oz/a | | A | 0 | 65 | 70 | 100 | 100 | 100 |
| 5 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 5 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 6 | Rimsulfuron | 25 | 1 oz/a | | A | 0 | 80 | 65 | 98 | 100 | 100 |
| 6 | Thifensulfuron | 50 | 0.5 oz/a | | A | | | | | | |
| 6 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 6 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 7 | Rimsulfuron | 25 | 1 oz/a | | A | 0 | 60 | 55 | 88 | 100 | 100 |
| 7 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 7 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 7 | Abundit | 4 | 32 oz/a | | B | | | | | | |
| 7 | N-PAK AMS | 100 | 1.5 qt/a | | B | | | | | | |
| 8 | Rimsulfuron | 25 | 1.5 oz/a | | A | 0 | 67 | 48 | 85 | 100 | 100 |
| 8 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 8 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 8 | Abundit | 4 | 32 oz/a | | B | | | | | | |
| 8 | N-PAK AMS | 100 | 1.5 qt/a | | B | | | | | | |
| 9 | Rimsulfuron | 25 | 1 oz/a | | A | 0 | 60 | 55 | 89 | 100 | 100 |
| 9 | Thifensulfuron | 50 | 0.5 oz/a | | A | | | | | | |
| 9 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 9 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 9 | Abundit | 4 | 32 oz/a | | B | | | | | | |
| 9 | N-PAK AMS | 100 | 1.5 qt/a | | B | | | | | | |
| 10 | Lumax | 3.94 | 3 qt/a | | A | 0 | 93 | 91 | 100 | 100 | 100 |
| 11 | Lumax | 3.94 | 3 qt/a | | A | 0 | 96 | 93 | 100 | 100 | 100 |
| 11 | Abundit | 4 | 32 oz/a | | B | | | | | | |

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|-------------------------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|
| Pest Type | | W Weed | W Weed | W Weed | W Weed | W Weed |
| Pest Code | | SETFA | AMBTR | ABUTH | CHEAL | AMARE |
| Pest Scientific Name | | Setaria faberi | Ambrosia trifi> | Abutilon theop> | Chenopodium al> | Amaranthus ret> |
| Pest Name | | Giant foxtail | Giant ragweed | Velvetleaf | Common lambsqu> | Redroot pigweed |
| Crop Code | ZEAMX | | | | | |
| BBCH Scale | BCOR | | | | | |
| Crop Scientific Name | Zea mays | | | | | |
| Crop Name | Corn | | | | | |
| Rating Date | 6/13/11 | 6/13/11 | 6/13/11 | 6/13/11 | 6/13/11 | 6/13/11 |
| Rating Type | PHYGEN | CONTRO | CONTRO | CONTRO | CONTRO | CONTRO |
| Rating Unit | % | % | % | % | % | % |
| Number of Subsamples | 1 | 1 | 1 | 1 | 1 | 1 |
| Days After First/Last Applic. | 13 13 | 13 13 | 13 13 | 13 13 | 13 13 | 13 13 |
| Trt-Eval Interval | 13 DA-A | 13 DA-A | 13 DA-A | 13 DA-A | 13 DA-A | 13 DA-A |
| Plant-Eval Interval | 13 DP-1 | 13 DP-1 | 13 DP-1 | 13 DP-1 | 13 DP-1 | 13 DP-1 |
| Days After Emergence | 7 DE-1 | 7 DE-1 | 7 DE-1 | 7 DE-1 | 7 DE-1 | 7 DE-1 |
| Number of Decimals | 0 | 0 | 0 | 0 | 0 | 0 |
| Trt No. | Treatment Name | Form Conc | Other Rate | Other Rate | Appl Unit | Code |
| 11 | N-PAK AMS | 100 | 1.5 qt/a | | B | |
| 12 | UTC | | | | | |
| LSD (P=.05) | | 0.0 | 13.5 | 34.5 | 14.6 | 22.1 |
| Standard Deviation | | 0.0 | 8.0 | 20.3 | 8.6 | 13.0 |
| CV | | 0.0 | 12.41 | 37.22 | 10.14 | 14.98 |
| Bartlett's X2 | | 0.0 | 8.43 | 8.633 | 4.972 | 0.413 |
| P(Bartlett's X2) | | . | 0.491 | 0.567 | 0.547 | 0.52 |
| Replicate F | | 0.000 | 0.166 | 0.634 | 1.553 | 0.110 |
| Replicate Prob(F) | | 1.0000 | 0.8484 | 0.5405 | 0.2338 | 0.8962 |
| Treatment F | | 0.000 | 26.941 | 4.533 | 30.622 | 15.236 |
| Treatment Prob(F) | | 1.0000 | 0.0001 | 0.0015 | 0.0001 | 0.0001 |

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|-------------------------------|-------------------|----------------|-------------------|-----------------|-----------------|
| Pest Type | W Weed | W Weed | W Weed | W Weed | W Weed |
| Pest Code | IPOHE | SETFA | AMBTR | CHEAL | ABUTH |
| Pest Scientific Name | Ipomoea hederata> | Setaria faberi | Ambrosia trifida> | Chenopodium al- | Abutilon theop> |
| Pest Name | Ivyleaf mornin> | Giant foxtail | Giant ragweed | Common lambsqu> | Velvetleaf |
| Crop Code | ZEAMX | | | | |
| BBCH Scale | BCOR | | | | |
| Crop Scientific Name | Zea mays | | | | |
| Crop Name | Corn | | | | |
| Rating Date | 6/13/11 | 6/28/11 | 6/28/11 | 6/28/11 | 6/28/11 |
| Rating Type | CONTRO | PHYGEN | CONTRO | CONTRO | CONTRO |
| Rating Unit | % | % | % | % | % |
| Number of Subsamples | 1 | 1 | 1 | 1 | 1 |
| Days After First/Last Applic. | 13 13 | 28 7 | 28 7 | 28 7 | 28 7 |
| Trt-Eval Interval | 13 DA-A | 7 DA-B | 7 DA-B | 7 DA-B | 7 DA-B |
| Plant-Eval Interval | 13 DP-1 | 28 DP-1 | 28 DP-1 | 28 DP-1 | 28 DP-1 |
| Days After Emergence | 7 DE-1 | 22 DE-1 | 22 DE-1 | 22 DE-1 | 22 DE-1 |
| Number of Decimals | 0 | 0 | 0 | 0 | 0 |

| Trt No. | Treatment Name | Form Conc | Other Rate | Other Rate | Appl Unit Code | 7 | 8 | 9 | 10 | 11 | 12 |
|---------|----------------|-----------|------------|------------|----------------|----|---|----|-----|-----|-----|
| 1 | Rimsulfuron | 25 | 1 oz/a | | A | 37 | 0 | 57 | 20 | 90 | 87 |
| 1 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 2 | Rimsulfuron | 25 | 1.5 oz/a | | A | 30 | 0 | 60 | 40 | 73 | 100 |
| 2 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 3 | Rimsulfuron | 25 | 1 oz/a | | A | 30 | 0 | 60 | 33 | 100 | 100 |
| 3 | Thifensulfuron | 50 | 0.5 oz/a | | A | | | | | | |
| 3 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 4 | Rimsulfuron | 25 | 1 oz/a | | A | 47 | 0 | 60 | 40 | 93 | 100 |
| 4 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 4 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 5 | Rimsulfuron | 25 | 1.5 oz/a | | A | 37 | 0 | 60 | 50 | 90 | 100 |
| 5 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 5 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 6 | Rimsulfuron | 25 | 1 oz/a | | A | 58 | 0 | 73 | 45 | 100 | 100 |
| 6 | Thifensulfuron | 50 | 0.5 oz/a | | A | | | | | | |
| 6 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 6 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 7 | Rimsulfuron | 25 | 1 oz/a | | A | 47 | 0 | 93 | 100 | 100 | 100 |
| 7 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 7 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 7 | Abundit | 4 | 32 oz/a | | B | | | | | | |
| 7 | N-PAK AMS | 100 | 1.5 qt/a | | B | | | | | | |
| 8 | Rimsulfuron | 25 | 1.5 oz/a | | A | 40 | 0 | 93 | 99 | 100 | 100 |
| 8 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 8 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 8 | Abundit | 4 | 32 oz/a | | B | | | | | | |
| 8 | N-PAK AMS | 100 | 1.5 qt/a | | B | | | | | | |
| 9 | Rimsulfuron | 25 | 1 oz/a | | A | 47 | 0 | 92 | 98 | 100 | 100 |
| 9 | Thifensulfuron | 50 | 0.5 oz/a | | A | | | | | | |
| 9 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 9 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 9 | Abundit | 4 | 32 oz/a | | B | | | | | | |
| 9 | N-PAK AMS | 100 | 1.5 qt/a | | B | | | | | | |
| 10 | Lumax | 3.94 | 3 qt/a | | A | 72 | 0 | 85 | 85 | 100 | 100 |
| 11 | Lumax | 3.94 | 3 qt/a | | A | 82 | 0 | 95 | 93 | 100 | 100 |
| 11 | Abundit | 4 | 32 oz/a | | B | | | | | | |

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|-------------------------------|-------------------|----------------|-------------------|-----------------|------------------|--------|
| Pest Type | W Weed | W Weed | W Weed | W Weed | W Weed | |
| Pest Code | IPOHE | SETFA | AMBTR | CHEAL | ABUTH | |
| Pest Scientific Name | Ipomoea hederata> | Setaria faberi | Ambrosia trifida> | Chenopodium al- | Abutilon theop-> | |
| Pest Name | Ivyleaf mornin> | Giant foxtail | Giant ragweed | Common lambsqu> | Velvetleaf | |
| Crop Code | ZEAMX | | | | | |
| BBCH Scale | BCOR | | | | | |
| Crop Scientific Name | Zea mays | | | | | |
| Crop Name | Corn | | | | | |
| Rating Date | 6/13/11 | 6/28/11 | 6/28/11 | 6/28/11 | 6/28/11 | |
| Rating Type | CONTRO | PHYGEN | CONTRO | CONTRO | CONTRO | |
| Rating Unit | % | % | % | % | % | |
| Number of Subsamples | 1 | 1 | 1 | 1 | 1 | |
| Days After First/Last Applic. | 13 13 | 28 7 | 28 7 | 28 7 | 28 7 | |
| Trt-Eval Interval | 13 DA-A | 7 DA-B | 7 DA-B | 7 DA-B | 7 DA-B | |
| Plant-Eval Interval | 13 DP-1 | 28 DP-1 | 28 DP-1 | 28 DP-1 | 28 DP-1 | |
| Days After Emergence | 7 DE-1 | 22 DE-1 | 22 DE-1 | 22 DE-1 | 22 DE-1 | |
| Number of Decimals | 0 | 0 | 0 | 0 | 0 | |
| Trt No. | 7 | 8 | 9 | 10 | 11 | 12 |
| Treatment Name | 11 N-PAK AMS | | | | | |
| Form Conc | 100 | | | | | |
| Other Rate | 1.5 qt/a | | | | | |
| Other Rate | | | | | | |
| Appl Unit | B | | | | | |
| 12 UTC | 0 | 0 | 0 | 0 | 0 | 0 |
| LSD (P=.05) | 26.7 | 0.0 | 9.6 | 22.1 | 18.5 | 11.3 |
| Standard Deviation | 15.7 | 0.0 | 5.7 | 13.1 | 10.9 | 6.7 |
| CV | 35.99 | 0.0 | 8.2 | 22.28 | 12.53 | 7.36 |
| Bartlett's X2 | 9.367 | 0.0 | 5.237 | 14.63 | 1.11 | 0.0 |
| P(Bartlett's X2) | 0.312 | . | 0.514 | 0.102 | 0.775 | . |
| Replicate F | 0.059 | 0.000 | 4.478 | 1.156 | 0.442 | 1.000 |
| Replicate Prob(F) | 0.9430 | 1.0000 | 0.0234 | 0.3333 | 0.6484 | 0.3840 |
| Treatment F | 5.348 | 0.000 | 66.931 | 21.281 | 20.541 | 55.886 |
| Treatment Prob(F) | 0.0004 | 1.0000 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |

Ohio State University Horticulture and Crop Science

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|-------------------------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|
| Pest Type | W Weed | W Weed | W Weed | W Weed | W Weed | W Weed |
| Pest Code | AMARE | POLPY | IPOHE | SETFA | AMBTR | CHEAL |
| Pest Scientific Name | Amaranthus ret> | Persicaria pen> | Ipomoea hедера> | Setaria faberi | Ambrosia trifi> | Chenopodium al> |
| Pest Name | Redroot pigweed | Pennsylvania s> | Ivyleaf mornin> | Giant foxtail | Giant ragweed | Common lambsqu> |
| Crop Code | | | | | | |
| BBCH Scale | | | | | | |
| Crop Scientific Name | | | | | | |
| Crop Name | | | | | | |
| Rating Date | 6/28/11 | 6/28/11 | 6/28/11 | 7/26/11 | 7/26/11 | 7/26/11 |
| Rating Type | CONTRO | CONTRO | CONTRO | CONTRO | CONTRO | CONTRO |
| Rating Unit | % | % | % | % | % | % |
| Number of Subsamples | 1 | 1 | 1 | 1 | 1 | 1 |
| Days After First/Last Applic. | 28 7 | 28 7 | 28 7 | 56 35 | 56 35 | 56 35 |
| Trt-Eval Interval | 7 DA-B | 7 DA-B | 7 DA-B | 35 DA-B | 35 DA-B | 35 DA-B |
| Plant-Eval Interval | 28 DP-1 | 28 DP-1 | 28 DP-1 | 56 DP-1 | 56 DP-1 | 56 DP-1 |
| Days After Emergence | 22 DE-1 | 22 DE-1 | 22 DE-1 | 50 DE-1 | 50 DE-1 | 50 DE-1 |
| Number of Decimals | 0 | 0 | 0 | 0 | 0 | 0 |

| Trt No. | Treatment Name | Form Conc | Other Rate | Other Rate | Appl Unit Code | 13 | 14 | 15 | 16 | 17 | 18 |
|---------|----------------|-----------|------------|------------|----------------|-----|-----|----|----|-----|-----|
| 1 | Rimsulfuron | 25 | 1 oz/a | | A | 63 | 77 | 17 | 57 | 33 | 100 |
| 1 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 2 | Rimsulfuron | 25 | 1.5 oz/a | | A | 40 | 100 | 13 | 50 | 43 | 87 |
| 2 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 3 | Rimsulfuron | 25 | 1 oz/a | | A | 77 | 100 | 19 | 67 | 47 | 100 |
| 3 | Thifensulfuron | 50 | 0.5 oz/a | | A | | | | | | |
| 3 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 4 | Rimsulfuron | 25 | 1 oz/a | | A | 100 | 100 | 23 | 63 | 57 | 100 |
| 4 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 4 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 5 | Rimsulfuron | 25 | 1.5 oz/a | | A | 100 | 83 | 23 | 57 | 72 | 100 |
| 5 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 5 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 6 | Rimsulfuron | 25 | 1 oz/a | | A | 100 | 100 | 53 | 67 | 63 | 100 |
| 6 | Thifensulfuron | 50 | 0.5 oz/a | | A | | | | | | |
| 6 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 6 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 7 | Rimsulfuron | 25 | 1 oz/a | | A | 100 | 100 | 97 | 90 | 100 | 100 |
| 7 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 7 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 7 | Abundit | 4 | 32 oz/a | | B | | | | | | |
| 7 | N-PAK AMS | 100 | 1.5 qt/a | | B | | | | | | |
| 8 | Rimsulfuron | 25 | 1.5 oz/a | | A | 100 | 100 | 89 | 88 | 100 | 100 |
| 8 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 8 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 8 | Abundit | 4 | 32 oz/a | | B | | | | | | |
| 8 | N-PAK AMS | 100 | 1.5 qt/a | | B | | | | | | |
| 9 | Rimsulfuron | 25 | 1 oz/a | | A | 100 | 100 | 92 | 88 | 97 | 100 |
| 9 | Thifensulfuron | 50 | 0.5 oz/a | | A | | | | | | |
| 9 | Mesotrione | 50 | 4.5 oz/a | | A | | | | | | |
| 9 | Atrazine | 4 | 1 qt/a | | A | | | | | | |
| 9 | Abundit | 4 | 32 oz/a | | B | | | | | | |
| 9 | N-PAK AMS | 100 | 1.5 qt/a | | B | | | | | | |
| 10 | Lumax | 3.94 | 3 qt/a | | A | 100 | 100 | 52 | 83 | 95 | 100 |
| 11 | Lumax | 3.94 | 3 qt/a | | A | 100 | 100 | 90 | 94 | 100 | 100 |
| 11 | Abundit | 4 | 32 oz/a | | B | | | | | | |

Ohio State University Horticulture and Crop Science

| Pest Type | W Weed | W Weed | W Weed | W Weed | W Weed | W Weed |
|-------------------------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|
| Pest Code | AMARE | POLPY | IPOHE | SETFA | AMBTR | CHEAL |
| Pest Scientific Name | Amaranthus ret> | Persicaria pen> | Ipomoea heder> | Setaria faberi | Ambrosia trifi> | Chenopodium al> |
| Pest Name | Redroot pigweed | Pennsylvania s> | Ivyleaf mornin> | Giant foxtail | Giant ragweed | Common lambsqu> |
| Crop Code | | | | | | |
| BBCH Scale | | | | | | |
| Crop Scientific Name | | | | | | |
| Crop Name | | | | | | |
| Rating Date | 6/28/11 | 6/28/11 | 6/28/11 | 7/26/11 | 7/26/11 | 7/26/11 |
| Rating Type | CONTRO | CONTRO | CONTRO | CONTRO | CONTRO | CONTRO |
| Rating Unit | % | % | % | % | % | % |
| Number of Subsamples | 1 | 1 | 1 | 1 | 1 | 1 |
| Days After First/Last Applic. | 28 7 | 28 7 | 28 7 | 56 35 | 56 35 | 56 35 |
| Trt-Eval Interval | 7 DA-B | 7 DA-B | 7 DA-B | 35 DA-B | 35 DA-B | 35 DA-B |
| Plant-Eval Interval | 28 DP-1 | 28 DP-1 | 28 DP-1 | 56 DP-1 | 56 DP-1 | 56 DP-1 |
| Days After Emergence | 22 DE-1 | 22 DE-1 | 22 DE-1 | 50 DE-1 | 50 DE-1 | 50 DE-1 |
| Number of Decimals | 0 | 0 | 0 | 0 | 0 | 0 |
| Trt No. | 13 | 14 | 15 | 16 | 17 | 18 |
| Treatment Name | 11 N-PAK AMS | | | | | |
| Form Conc | 100 | | | | | |
| Other Rate | 1.5 qt/a | | | | | |
| Other Rate | | | | | | |
| Appl Unit | B | | | | | |
| Code | | | | | | |
| 12 UTC | 0 | 0 | 0 | 0 | 0 | 0 |
| LSD (P=.05) | 19.5 | 16.9 | 29.9 | 15.9 | 23.2 | 11.3 |
| Standard Deviation | 11.5 | 10.0 | 17.6 | 9.4 | 13.7 | 6.7 |
| CV | 14.1 | 11.28 | 37.14 | 14.01 | 20.37 | 7.36 |
| Bartlett's X2 | 2.585 | 0.206 | 16.889 | 6.28 | 10.944 | 0.0 |
| P(Bartlett's X2) | 0.275 | 0.65 | 0.077 | 0.791 | 0.141 | . |
| Replicate F | 2.326 | 1.763 | 3.341 | 0.053 | 0.707 | 1.000 |
| Replicate Prob(F) | 0.1213 | 0.1949 | 0.0550 | 0.9482 | 0.5039 | 0.3840 |
| Treatment F | 23.566 | 25.252 | 12.640 | 22.996 | 16.957 | 55.886 |
| Treatment Prob(F) | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |

Ohio State University Horticulture and Crop Science

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|-------------------------------|-----------------|-----------------|-----------------|-------------------|
| Pest Type | W Weed | W Weed | W Weed | W Weed |
| Pest Code | ABUTH | AMARE | POLPY | IPOHE |
| Pest Scientific Name | Abutilon theop> | Amaranthus ret> | Persicaria pen> | Ipomoea hederata> |
| Pest Name | Velvetleaf | Redroot pigweed | Pennsylvania s> | Ivyleaf mornin> |
| Crop Code | | | | |
| BBCH Scale | | | | |
| Crop Scientific Name | | | | |
| Crop Name | | | | |
| Rating Date | 7/26/11 | 7/26/11 | 7/26/11 | 7/26/11 |
| Rating Type | CONTRO | CONTRO | CONTRO | CONTRO |
| Rating Unit | % | % | % | % |
| Number of Subsamples | 1 | 1 | 1 | 1 |
| Days After First/Last Applic. | 56 35 | 56 35 | 56 35 | 56 35 |
| Trt-Eval Interval | 35 DA-B | 35 DA-B | 35 DA-B | 35 DA-B |
| Plant-Eval Interval | 56 DP-1 | 56 DP-1 | 56 DP-1 | 56 DP-1 |
| Days After Emergence | 50 DE-1 | 50 DE-1 | 50 DE-1 | 50 DE-1 |
| Number of Decimals | 0 | 0 | 0 | 0 |

| Trt No. | Treatment Name | Form Conc | Other Rate | Other Rate | Appl Unit Code | 19 | 20 | 21 | 22 |
|---------|----------------|-----------|------------|------------|----------------|-----|-----|-----|----|
| 1 | Rimsulfuron | 25 | 1 oz/a | | A | 100 | 77 | 100 | 33 |
| 1 | Mesotrione | 50 | 4.5 oz/a | | A | | | | |
| 2 | Rimsulfuron | 25 | 1.5 oz/a | | A | 100 | 57 | 100 | 30 |
| 2 | Mesotrione | 50 | 4.5 oz/a | | A | | | | |
| 3 | Rimsulfuron | 25 | 1 oz/a | | A | 100 | 100 | 100 | 30 |
| 3 | Thifensulfuron | 50 | 0.5 oz/a | | A | | | | |
| 3 | Mesotrione | 50 | 4.5 oz/a | | A | | | | |
| 4 | Rimsulfuron | 25 | 1 oz/a | | A | 100 | 100 | 100 | 52 |
| 4 | Mesotrione | 50 | 4.5 oz/a | | A | | | | |
| 4 | Atrazine | 4 | 1 qt/a | | A | | | | |
| 5 | Rimsulfuron | 25 | 1.5 oz/a | | A | 100 | 100 | 100 | 53 |
| 5 | Mesotrione | 50 | 4.5 oz/a | | A | | | | |
| 5 | Atrazine | 4 | 1 qt/a | | A | | | | |
| 6 | Rimsulfuron | 25 | 1 oz/a | | A | 100 | 100 | 100 | 53 |
| 6 | Thifensulfuron | 50 | 0.5 oz/a | | A | | | | |
| 6 | Mesotrione | 50 | 4.5 oz/a | | A | | | | |
| 6 | Atrazine | 4 | 1 qt/a | | A | | | | |
| 7 | Rimsulfuron | 25 | 1 oz/a | | A | 100 | 100 | 100 | 73 |
| 7 | Mesotrione | 50 | 4.5 oz/a | | A | | | | |
| 7 | Atrazine | 4 | 1 qt/a | | A | | | | |
| 7 | Abundit | 4 | 32 oz/a | | B | | | | |
| 7 | N-PAK AMS | 100 | 1.5 qt/a | | B | | | | |
| 8 | Rimsulfuron | 25 | 1.5 oz/a | | A | 100 | 100 | 100 | 55 |
| 8 | Mesotrione | 50 | 4.5 oz/a | | A | | | | |
| 8 | Atrazine | 4 | 1 qt/a | | A | | | | |
| 8 | Abundit | 4 | 32 oz/a | | B | | | | |
| 8 | N-PAK AMS | 100 | 1.5 qt/a | | B | | | | |
| 9 | Rimsulfuron | 25 | 1 oz/a | | A | 100 | 100 | 100 | 63 |
| 9 | Thifensulfuron | 50 | 0.5 oz/a | | A | | | | |
| 9 | Mesotrione | 50 | 4.5 oz/a | | A | | | | |
| 9 | Atrazine | 4 | 1 qt/a | | A | | | | |
| 9 | Abundit | 4 | 32 oz/a | | B | | | | |
| 9 | N-PAK AMS | 100 | 1.5 qt/a | | B | | | | |
| 10 | Lumax | 3.94 | 3 qt/a | | A | 100 | 100 | 100 | 43 |
| 11 | Lumax | 3.94 | 3 qt/a | | A | 100 | 100 | 100 | 82 |
| 11 | Abundit | 4 | 32 oz/a | | B | | | | |

Ohio State University Horticulture and Crop Science

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|-------------------------------|-----------------|-----------------|-----------------|-----------------|
| Pest Type | W Weed | W Weed | W Weed | W Weed |
| Pest Code | ABUTH | AMARE | POLPY | IPOHE |
| Pest Scientific Name | Abutilon theop> | Amaranthus ret> | Persicaria pen> | Ipomoea heder> |
| Pest Name | Velvetleaf | Redroot pigweed | Pennsylvania s> | Ivyleaf mornin> |
| Crop Code | | | | |
| BBCH Scale | | | | |
| Crop Scientific Name | | | | |
| Crop Name | | | | |
| Rating Date | 7/26/11 | 7/26/11 | 7/26/11 | 7/26/11 |
| Rating Type | CONTRO | CONTRO | CONTRO | CONTRO |
| Rating Unit | % | % | % | % |
| Number of Subsamples | 1 | 1 | 1 | 1 |
| Days After First/Last Applic. | 56 35 | 56 35 | 56 35 | 56 35 |
| Trt-Eval Interval | 35 DA-B | 35 DA-B | 35 DA-B | 35 DA-B |
| Plant-Eval Interval | 56 DP-1 | 56 DP-1 | 56 DP-1 | 56 DP-1 |
| Days After Emergence | 50 DE-1 | 50 DE-1 | 50 DE-1 | 50 DE-1 |
| Number of Decimals | 0 | 0 | 0 | 0 |
| Trt No. | 19 | 20 | 21 | 22 |
| Treatment Name | 11 N-PAK AMS | | | |
| Form Conc | 100 | | | |
| Other Rate | 1.5 qt/a | | | |
| Other Rate Unit | B | | | |
| Appl Code | | | | |
| 12 UTC | 0 | 0 | 0 | 0 |
| LSD (P=.05) | 0.0 | 10.4 | 0.0 | 28.7 |
| Standard Deviation | 0.0 | 6.1 | 0.0 | 17.0 |
| CV | 0.0 | 7.12 | 0.0 | 35.82 |
| Bartlett's X2 | 0.0 | 2.6 | 0.0 | 5.015 |
| P(Bartlett's X2) | . | 0.107 | . | 0.756 |
| Replicate F | 0.000 | 1.403 | 0.000 | 2.000 |
| Replicate Prob(F) | 1.0000 | 0.2671 | 1.0000 | 0.1592 |
| Treatment F | 0.000 | 73.262 | 0.000 | 5.035 |
| Treatment Prob(F) | 1.0000 | 0.0001 | 1.0000 | 0.0006 |

Ohio State University Horticulture and Crop Science

Preemergence Mixtures of Rimsulfuron and Dry Mesotrione Weed Control in Corn

Title No. 2:

Trial ID: 11PREC1 Protocol ID: 11PREC1
Location: WESTERN BRANCH F-8 Study Director: Anthony F. Dobbels
Project ID: USA-11-006 Investigator: Dr. Mark M. Loux
Sponsor Contact: Marsha Martin, DuPont

Pest Type

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

Pest Code

SETFA, *Setaria faberi*, = US
AMBTR, *Ambrosia trifida*, = US
ABUTH, *Abutilon theophrasti*, = US
CHEAL, *Chenopodium album*, = US
AMARE, *Amaranthus retroflexus*, = US
IPOHE, *Ipomoea hederacea*, = US
POLPY, *Persicaria pensylvanica*, = US

Crop Code

ZEAMX, BCOR, *Zea mays*, = US

Rating Type

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

Rating Unit

% = percent

Plant-Eval Interval

13 DP-1 = 1 5/31/11
28 DP-1 = 1 5/31/11
56 DP-1 = 1 5/31/11