

University of Georgia

ARE 2 POST APPLICATIONS NEEDED FOR CORN WEED MANAGEMENT?
 Trial ID: CN-12-21 Study Dir.:
 Location: PONDER FARM Investigator: Eric P. Prostko

Reps: 3 Plots: 6 by 25 feet

| Trt No. | Treatment Name | Form Conc | Form Type | Product Rate | Product Rate Unit | Grow Stg | Appl Code | Amt to Measure | Diluent | Rep 1 | Rep 2 | Rep 3 |
|---------|----------------|-----------|-----------|--------------|-------------------|----------|-----------|----------------|-----------|-------|-------|-------|
| 1 | NTC | | | | | | | | - | 101 | 203 | 301 |
| 2 | ROUNDUP P-MAX3 | 5.88 | SL | 22.0 oz/a | | EPOST A | | 17.19 mL/mx | 1432.8 mL | 102 | 201 | 303 |
| | AATREX | | 4 L | 64.0 oz/a | | EPOST A | | 50.0 mL/mx | | | | |
| 3 | HALEX GT | 4.39 | SC | 58.0 oz/a | | MPOST B | | 45.31 mL/mx | 1400.9 mL | 103 | 204 | 302 |
| | ATRAZINE | | 4 L | 64.0 oz/a | | MPOST B | | 50.0 mL/mx | | | | |
| | INDUCE | | | 0.25 % v/v | | MPOST B | | 3.75 mL/mx | | | | |
| 4 | ROUNDUP P-MAX3 | 5.88 | SL | 22.0 oz/a | | EPOST A | | 17.19 mL/mx | 1457.8 mL | 104 | 202 | 304 |
| | AATREX | | 4 L | 32.0 oz/a | | EPOST A | | 25.0 mL/mx | | | | |
| | HALEX GT | 4.39 | SC | 58.0 oz/a | | LPOST C | | 45.31 mL/mx | | | | |
| | ATRAZINE | | 4 L | 48.0 oz/a | | LPOST C | | 37.5 mL/mx | | | | |
| | INDUCE | | | 0.25 % v/v | | LPOST C | | 3.75 mL/mx | | | | |

Sort Order: Treatment

Trial Comments

HARVEST MOISTURE: 17.32%
 YIELD ADJUSTED TO 15.5%

SUMMARY:

1) GENERALLY, EPOST APPLICATIONS OF ROUNDUP + ATRAZINE PROVIDED LESS CONTROL OF PALMER AMARANTH, WILD RADISH, AND ANNUAL GRASSES WHEN COMPARED TO EITHER MPOST APPLICATIONS OF HALEX GT + ATRAZINE OR ROUNDUP + ATRAZINE (EPOST) FB HALEX GT + ATRAZINE (LPOST).

2) ALL HERBICIDE TREATED PLOTS HAD SIGNIFICANTLY HIGHER YIELDS THAN THE NTC.

3) YIELDS FROM EPOST APPLICATIONS OF ROUNDUP + ATRAZINE WERE LOWER THAN YIELDS FROM MPOST APPLICATIONS OF HALEX GT + ATRAZINE BUT NOT ROUNDUP + ATRAZINE (EPOST) FB HALEX GT + ATRAZINE (LPOST).

4) NO DIFFERENCES IN YIELDS WERE OBSERVED BETWEEN MPOST APPLICATIONS OF HALEX GT + ATRAZINE AND ROUNDUP + ATRAZINE (EPOST) FB HALEX GT + ATRAZINE (LPOST).

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GENERAL TRIAL INFORMATION

Study Director: _____ **Title:** _____
Affiliation: _____
Postal Code: _____

Investigator: Eric P. Prostko **Title:** _____
Affiliation: _____
Postal Code: _____

TRIAL LOCATION

City: _____ **Trial Status:** E
State/Prov.: _____ **Trial Reliability:** _____
Postal Code: _____ **Initiation Date:** _____
Country: _____ **Planned Completion Date:** _____
E-Longitude of LL Corner °: _____ **N-Latitude of LL Corner °:** _____
Altitude of LL Corner: _____ **Unit:** _____ **Angle y-axis to North °:** _____
Directions: _____

COOPERATOR/LANDOWNER

Cooperator: _____ **Country:** _____
Org: _____ **Phone No:** _____
Address 1: _____ **Fax No:** _____
Address 2: _____
City: _____
State/Prov: _____
Postal Code: _____

Conducted Under GLP (Y/N): N **Conducted Under GEP (Y/N):** N
Guidelines: _____ **Guideline Description:** _____

Objective: _____

Conclusions: _____

CROP AND WEED DESCRIPTION

| Weed | Code | Common Name | Scientific Name |
|------|--------|-------------|-----------------|
| 1. | AMAPA | PA | LMER AAMRANTH |
| 2. | CYPSP | NU | TSEEDGE |
| 3. | RAPRA | RA | DISH |
| 4. | DEDTO | BE | GGARWEED |
| 5. | AGRASS | AN | NUAL GRASS |
| 6. | | | |

Crop 1: ZEAMA FIELD CORN **Variety:** PIONEER 1870YHR
Planting Date: Mar-22-21 **Planting Method:** MONOSEM
Rate: 36300 SEED/A **Depth:** 2 IN **Perennial Age:** _____
Row Spacing: 36 IN **Spacing Within Row:** _____ **Seed Bed:** _____
Soil Temperature: _____ **Soil Moisture:** OPTIMUM **Emergence Date:** _____

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 25 FT **Reps:** 3
Site Type: _____
Tillage Type: CONVENTIONAL **Study Design:** RACOB

Trial Initiation Comments:

| | Previous Crops | Previous Pesticides | Year |
|----|----------------|---------------------|------|
| 1. | PEANUT | | 2020 |

MAINTENANCE

Field Prep./Maintenance: 800 LBS/A 5-10-15-PREPLANT; LUMIGEN SEED TRT;
 127-0-0-16(S) SIDRESS ON APRIL 19 AND APRIL 29
 AXILO BMZ (MICRO-NUTRIENTS) ON APRIL 20

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| No. | Date | Maintenance Treatment Name | Form Conc | Form Unit | Form Type | Rate | Rate Unit |
|-----|------|----------------------------|-----------|-----------|-----------|------|-----------|
| 1. | | | | | | | |

SOIL DESCRIPTION
 % Sand: 94 % OM: 0.61 Texture: SAND
 % Silt: 4 pH: 6.0 Soil Name: TIFTON
 % Clay: 2 CEC: 2.5 Fert. Level: GOOD

ADDITIONAL MEASURED ELEMENTS

| Element | Quantity | Unit |
|---------|----------|------|
| | | |

MOISTURE CONDITIONS

| | Date | Time | Amount | Unit | Type | Interval | Unit |
|-----|-----------|------|--------|------|--------------------------|----------|------|
| 1. | Mar-24-21 | | 0.4 | IN | SPRINKLER - LATERAL MOVE | | |
| 2. | Mar-28-21 | | 0.1 | IN | RAIN | | |
| 3. | Mar-31-21 | | 0.6 | IN | SPRINKLER - LATERAL MOVE | | |
| 4. | Mar-31-21 | | 0.8 | IN | RAIN | | |
| 5. | Apr-7-21 | | 0.5 | IN | SPRINKLER - LATERAL MOVE | | |
| 6. | Apr-9-21 | | 0.27 | IN | RAINFALL | | |
| 7. | Apr-10-21 | | 0.05 | IN | RAINFALL | | |
| 8. | Apr-11-21 | | 0.08 | IN | RAINFALL | | |
| 9. | Apr-17-21 | | 0.1 | IN | RAINFALL | | |
| 10. | Apr-18-21 | | 0.01 | IN | RAINFALL | | |
| 11. | Apr-20-21 | | 0.35 | IN | SPRINKLER - LATERAL MOVE | | |
| 12. | Apr-24-21 | | 6.0 | IN | RAINFALL | | |
| 13. | May-3-21 | | 0.1 | IN | RAINFALL | | |
| 14. | May-4-21 | | 1.15 | IN | RAINFALL | | |
| 15. | May-11-21 | | 0.5 | IN | SPRINKLER - LATERAL MOVE | | |
| 16. | May-11-21 | | 0.15 | IN | RAINFALL | | |
| 17. | May-12-21 | | 0.6 | IN | RAINFALL | | |

Overall Moisture Conditions: _____
Closest Weather Station: _____ **Distance:** _____ **Unit:** _____

APPLICATION DESCRIPTION

| | A | B | C |
|-----------------------------|-----------|-----------|-----------|
| Application Date: | Apr-5-21 | Apr-13-21 | Apr-23-21 |
| Time of Day: | 11:00 AM | 7:00 AM | 7:30 AM |
| Application Method: | BROADCAST | BROADCAST | BROADCAST |
| Application Timing: | EPOST | MPOST | LPOST |
| Applic. Placement: | FOLIAGE | FOLIAGE | FOLIAGE |
| Air Temp., Unit: | 67 F | 56 F | 45 F |
| % Relative Humidity: | 46 | 84 | 89 |
| Wind Velocity, Unit: | 4 MPH | 2 MPH | 1 MPH |
| Dew Presence (Y/N): | N | Y | Y |
| Water Hardness: | -- | -- | -- |
| Soil Temp., Unit: | 60 F | 60 F | 56 F |
| Soil Moisture: | OPTIMUM | OPTIMUM | OPTIMUM |
| % Cloud Cover: | 0 | 5 | 15 |

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| CROP STAGE AT EACH APPLICATION | | | |
|--------------------------------|--------|--------|--------|
| | A | B | C |
| Crop 1 Code, Stage: | ZEAMA, | ZEAMA, | ZEAMA, |
| Stage Scale: | V1-V2 | V4 | V5 |
| Height, Unit: | 2, IN | 5, IN | 10, IN |

| WEED STAGE AT EACH APPLICATION | | | |
|--------------------------------|-----------|--------|--------|
| | A | B | C |
| Weed 1 Code, Stage: | AMAPA, | AMAPA, | AMAPA, |
| Stage Scale: | 0.5" | 0.5-1" | -- |
| Density, Unit: | | | |
| Weed 2 Code, Stage: | CYPSP, | CYPSP, | CYPSP, |
| Stage Scale: | 3-4" | 5-6" | 7-10" |
| Density, Unit: | | | |
| Weed 3 Code, Stage: | RAPRA, | RAPRA, | RAPRA, |
| Stage Scale: | 1-2" | 3-4" | 1" |
| Density, Unit: | | | |
| Weed 4 Code, Stage: | DEDTO, | DEDTO, | DEDTO, |
| Stage Scale: | 0.5" | -- | 1" |
| Density, Unit: | | | |
| Weed 5 Code, Stage: | AGRAS, | AGRAS, | AGRAS, |
| Stage Scale: | 0.5" 1-2L | 1-2" | 1" |
| Density, Unit: | | | |
| Weed 6 Code, Stage: | , | , | , |
| Stage Scale: | | | |
| Density, Unit: | | | |

| APPLICATION EQUIPMENT | | | |
|------------------------------|----------|------|------|
| | A | B | C |
| Appl. Equipment: | BACKPACK | SAME | SAME |
| Operating Pressure: | 36 | | |
| Nozzle Type: | AIXR | | |
| Nozzle Size: | 11002 | | |
| Nozzle Spacing, Unit: | 20 IN | | |
| Nozzles/Row: | | | |
| Band Width, Unit: | | | |
| Boom Length, Unit: | 60 IN | | |
| Boom Height, Unit: | 20 IN | | |
| Ground Speed, Unit: | 3.5 MPH | | |
| Incorporation Equip.: | | | |
| Hours to Incorp.: | | | |
| Incorp. Depth, Unit: | | | |
| Carrier: | WATER | | |
| Spray Volume, Unit: | 15 GPA | | |
| Spray pH: | | | |
| Propellant: | CO2 | | |
| Tank Mix (Y/N): | | | |

| Trt No | Treatment Application Comment |
|--------|-------------------------------|
| | |

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| Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date | | ----- Zeama Plant, - Injury % Apr-21-21 | Amapa ----- Control % Apr-21-21 | Rapra ----- Control % Apr-21-21 | Agrass ----- Control % Apr-21-21 | ----- Zeama Stunting % Apr-29-21 | | | | | |
|--|----------------------------------|--|--|---|---|--|--------|--------|--------|--------|--------|
| Trt Treatment No. Name | Form Conc | Form Type | Product Rate | Product Rate | Grow Unit Stg | Appl Code | 1 | 2 | 3 | 4 | 5 |
| 1 NTC | | | | | | | 0.0 a | 0.0 b | 0.0 b | 0.0 c | 0.0 a |
| 2 ROUNDUP P-MAX3 AATREX | 5.88 SL 4 L | | 22.0 oz/a 64.0 oz/a | | EPOST A EPOST A | | 5.0 a | 99.0 a | 97.7 a | 86.3 a | 6.7 a |
| 3 HALEX GT ATRAZINE INDUCE | 4.39 SC 4 L | | 58.0 oz/a 64.0 oz/a 0.25 % v/v | | MPOST B MPOST B MPOST B | | 0.0 a | 99.0 a | 99.0 a | 97.7 a | 5.0 a |
| 4 ROUNDUP P-MAX3 AATREX HALEX GT ATRAZINE INDUCE | 5.88 SL 4 L 4.39 SC 4 L | | 22.0 oz/a 32.0 oz/a 58.0 oz/a 48.0 oz/a 0.25 % v/v | | EPOST A EPOST A LPOST C LPOST C LPOST C | | 5.0 a | 99.0 a | 96.0 a | 68.3 b | 16.7 a |
| LSD P=.10 | | | | | | | 10.49 | . | 4.78 | 16.56 | 20.27 |
| Standard Deviation | | | | | | | 6.61 | 0.00 | 3.01 | 10.43 | 12.77 |
| CV | | | | | | | 264.58 | 0.0 | 4.12 | 16.54 | 180.35 |
| Grand Mean | | | | | | | 2.50 | 74.25 | 73.17 | 63.08 | 7.08 |
| Bartlett's X2^ | | | | | | | 4.392 | . | 3.941 | 6.953 | 2.831 |
| P(Bartlett's X2) | | | | | | | 0.222 | . | 0.268 | 0.073 | 0.418 |

Means followed by same letter or symbol do not significantly differ (P=.10, LSD).
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 Could not calculate LSD (% mean diff) for columns 2,6,7,8,9,10,12,13 because error mean square = 0.
 ^Calculated from residual.

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| Weed Code | | | | | ----- Zeama | ----- Zeama | Amapa ----- | Rapra ----- | Agrass ----- | | | | | |
|--------------------|--|------------------------|--------------------|--|----------------|---|-----------------------|----------------|-----------------|-------|-------|--------|--------|--------|
| Crop Code | | | | | Chlorosis % | Necrosis % | Control % | Control % | Control | | | | | |
| Part Rated | | | | | Apr-29-21 | Apr-29-21 | Apr-29-21 | Apr-29-21 | Apr-29-21 | | | | | |
| Rating Data Type | | | | | | | | | | | | | | |
| Rating Unit | | | | | | | | | | | | | | |
| Rating Date | | | | | | | | | | | | | | |
| Trt No. | Treatment Name | Form Conc | Form Type | Product Rate | Product Rate | Grow Unit | Stg | Appl Code | | 6 | 7 | 8 | 9 | 10 |
| 1 | NTC | | | | | | | | | 0.0 a | 0.0 a | 0.0 b | 0.0 b | 0.0 c |
| 2 | ROUNDUP P-MAX3 AATREX | 5.88 4 | SL L | 22.0 oz/a 64.0 oz/a | | EPOST EPOST | A A | | | 0.0 a | 0.0 a | 99.0 a | 99.0 a | 50.0 b |
| 3 | HALEX GT ATRAZINE INDUCE | 4.39 4 | SC L | 58.0 oz/a 64.0 oz/a 0.25 % v/v | | MPOST MPOST MPOST | B B B | | | 0.0 a | 0.0 a | 99.0 a | 99.0 a | 99.0 a |
| 4 | ROUNDUP P-MAX3 AATREX HALEX GT ATRAZINE INDUCE | 5.88 4 4.39 4 | SL L SC L | 22.0 oz/a 32.0 oz/a 58.0 oz/a 48.0 oz/a 0.25 % v/v | | EPOST EPOST LPOST LPOST LPOST | A A C C C | | | 0.0 a | 0.0 a | 99.0 a | 99.0 a | 99.0 a |
| LSD P=.10 | | | | | | | | | | . | . | . | . | . |
| Standard Deviation | | | | | | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CV | | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Grand Mean | | | | | | | | | | 0.00 | 0.00 | 74.25 | 74.25 | 62.00 |
| Bartlett's X2^ | | | | | | | | | | . | . | . | . | . |
| P(Bartlett's X2) | | | | | | | | | | . | . | . | . | . |

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| Weed Code | ----- | ----- | ----- | Amapa | Rapra | | | | | | |
|------------------------|-----------|-----------|--------------|--------------|---------------|-----------|--------|-------|-------|--------|---------|
| Crop Code | Zeama | Zeama | Zeama | ----- | ----- | | | | | | |
| Part Rated | | | | | | | | | | | |
| Rating Data Type | Stunt | Chlorosis | Necrosis | Control | Control | | | | | | |
| Rating Unit | % | % | % | % | % | | | | | | |
| Rating Date | May-14-21 | May-14-21 | May-14-21 | May-14-21 | May-14-21 | | | | | | |
| Trt Treatment No. Name | Form Conc | Form Type | Product Rate | Product Rate | Grow Unit Stg | Appl Code | 11 | 12 | 13 | 14 | 15 |
| 1 NTC | | | | | | | 0.0 a | 0.0 a | 0.0 a | 0.0 c | 0.0 c |
| 2 ROUNDUP P-MAX3 | 5.88 SL | | 22.0 oz/a | | EPOST A | | 3.3 a | 0.0 a | 0.0 a | 66.7 b | 93.0 ab |
| AATREX | 4 L | | 64.0 oz/a | | EPOST A | | | | | | |
| 3 HALEX GT | 4.39 SC | | 58.0 oz/a | | MPOST B | | 3.3 a | 0.0 a | 0.0 a | 99.0 a | 96.3 a |
| ATRAZINE | 4 L | | 64.0 oz/a | | MPOST B | | | | | | |
| INDUCE | | | 0.25 % v/v | | MPOST B | | | | | | |
| 4 ROUNDUP P-MAX3 | 5.88 SL | | 22.0 oz/a | | EPOST A | | 10.0 a | 0.0 a | 0.0 a | 94.7 a | 88.3 b |
| AATREX | 4 L | | 32.0 oz/a | | EPOST A | | | | | | |
| HALEX GT | 4.39 SC | | 58.0 oz/a | | LPOST C | | | | | | |
| ATRAZINE | 4 L | | 48.0 oz/a | | LPOST C | | | | | | |
| INDUCE | | | 0.25 % v/v | | LPOST C | | | | | | |
| LSD P=.10 | | | | | | | 16.72 | . | . | 5.96 | 6.08 |
| Standard Deviation | | | | | | | 10.54 | 0.00 | 0.00 | 3.76 | 3.83 |
| CV | | | | | | | 252.98 | 0.0 | 0.0 | 5.77 | 5.52 |
| Grand Mean | | | | | | | 4.17 | 0.00 | 0.00 | 65.08 | 69.42 |
| Bartlett's X2^ | | | | | | | 3.475 | . | . | 1.661 | 5.248 |
| P(Bartlett's X2) | | | | | | | 0.324 | . | . | 0.646 | 0.155 |

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| Weed Code | | Agrass | ----- | ----- | | | | | | |
|--------------------|----------------|-----------|-----------|--------------|-------------------|----------|-----------|--------|---------|----------|
| Crop Code | | ----- | ZEAMA | ZEAMA | | | | | | |
| Part Rated | | Control | PLOT, - | PLOT, - | | | | | | |
| Rating Data Type | | % | YIELD | YIELD | | | | | | |
| Rating Unit | | LBS/PLOT | BU/A | BU/A | | | | | | |
| Rating Date | | May-14-21 | Sep-7-21 | Sep-7-21 | | | | | | |
| Trt No. | Treatment Name | Form Conc | Form Type | Product Rate | Product Rate Unit | Grow Stg | Appl Code | 16 | 17 | 18 |
| 1 | NTC | | | | | | | 0.0 c | 43.7 c | 221.6 c |
| 2 | ROUNDUP P-MAX3 | 5.88 | SL | 22.0 oz/a | | EPOST A | | 26.7 b | 50.3 b | 255.4 b |
| | AATREX | 4 | L | 64.0 oz/a | | EPOST A | | | | |
| 3 | HALEX GT | 4.39 | SC | 58.0 oz/a | | MPOST B | | 93.3 a | 53.7 a | 272.3 a |
| | ATRAZINE | 4 | L | 64.0 oz/a | | MPOST B | | | | |
| | INDUCE | | | 0.25 % v/v | | MPOST B | | | | |
| 4 | ROUNDUP P-MAX3 | 5.88 | SL | 22.0 oz/a | | EPOST A | | 90.0 a | 52.3 ab | 265.5 ab |
| | AATREX | 4 | L | 32.0 oz/a | | EPOST A | | | | |
| | HALEX GT | 4.39 | SC | 58.0 oz/a | | LPOST C | | | | |
| | ATRAZINE | 4 | L | 48.0 oz/a | | LPOST C | | | | |
| | INDUCE | | | 0.25 % v/v | | LPOST C | | | | |
| LSD P=.10 | | | | | | | | 7.12 | 3.25 | 16.49 |
| Standard Deviation | | | | | | | | 4.49 | 2.05 | 10.39 |
| CV | | | | | | | | 8.55 | 4.1 | 4.1 |
| Grand Mean | | | | | | | | 52.50 | 50.00 | 253.70 |
| Bartlett's X2^ | | | | | | | | 4.172 | 1.606 | 1.606 |
| P(Bartlett's X2) | | | | | | | | 0.244 | 0.658 | 0.658 |

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| | | | | | | |
|---|----|----------------|----------------|---------|---------|--|
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| Randomized Complete Block (RCB) AOV For ----- Zeama Plant Injury % Apr-21-21 (Data Column 1) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 375.000000 | | | | |
| Replicate | 2 | 37.500000 | 18.750000 | 0.429 | 0.6699 | |
| Treatment | 3 | 75.000000 | 25.000000 | 0.571 | 0.6542 | |
| Error | 6 | 262.500000 | 43.750000 | | | |
| Randomized Complete Block (RCB) AOV For Amapa ----- Control % Apr-21-21 (Data Column 2) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 22052.250000 | | | | |
| Replicate | 2 | 0.000000 | 0.000000 | 0.000 | 1.0000 | |
| Treatment | 3 | 22052.250000 | 7350.750000 | 0.000 | 1.0000 | |
| Error | 6 | 0.000000 | 0.000000 | | | |
| Randomized Complete Block (RCB) AOV For Rapra ----- Control % Apr-21-21 (Data Column 3) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 21491.666667 | | | | |
| Replicate | 2 | 10.166667 | 5.083333 | 0.560 | 0.5986 | |
| Treatment | 3 | 21427.000000 | 7142.333333 | 786.312 | 0.0001 | |
| Error | 6 | 54.500000 | 9.083333 | | | |
| Randomized Complete Block (RCB) AOV For Agrass ----- Control % Apr-21-21 (Data Column 4) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 17998.916667 | | | | |
| Replicate | 2 | 114.666667 | 57.333333 | 0.527 | 0.6156 | |
| Treatment | 3 | 17230.916667 | 5743.638889 | 52.748 | 0.0001 | |
| Error | 6 | 653.333333 | 108.888889 | | | |
| Randomized Complete Block (RCB) AOV For ----- Zeama Stunting % Apr-29-21 (Data Column 5) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 1622.916667 | | | | |
| Replicate | 2 | 204.166667 | 102.083333 | 0.626 | 0.5666 | |
| Treatment | 3 | 439.583333 | 146.527778 | 0.898 | 0.4950 | |
| Error | 6 | 979.166667 | 163.194444 | | | |
| Randomized Complete Block (RCB) AOV For ----- Zeama Chlorosis % Apr-29-21 (Data Column 6) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 0.000000000000 | | | | |
| Replicate | 2 | 0.000000000000 | 0.000000000000 | 0.000 | 1.0000 | |
| Treatment | 3 | 0.000000000000 | 0.000000000000 | 0.000 | 1.0000 | |
| Error | 6 | 0.000000000000 | 0.000000000000 | | | |
| Randomized Complete Block (RCB) AOV For ----- Zeama Necrosis % Apr-29-21 (Data Column 7) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 0.000000000000 | | | | |
| Replicate | 2 | 0.000000000000 | 0.000000000000 | 0.000 | 1.0000 | |
| Treatment | 3 | 0.000000000000 | 0.000000000000 | 0.000 | 1.0000 | |
| Error | 6 | 0.000000000000 | 0.000000000000 | | | |
| Randomized Complete Block (RCB) AOV For Amapa ----- Control % Apr-29-21 (Data Column 8) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 22052.250000 | | | | |
| Replicate | 2 | 0.000000 | 0.000000 | 0.000 | 1.0000 | |
| Treatment | 3 | 22052.250000 | 7350.750000 | 0.000 | 1.0000 | |
| Error | 6 | 0.000000 | 0.000000 | | | |
| Randomized Complete Block (RCB) AOV For Rapra ----- Control % Apr-29-21 (Data Column 9) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 22052.250000 | | | | |
| Replicate | 2 | 0.000000 | 0.000000 | 0.000 | 1.0000 | |
| Treatment | 3 | 22052.250000 | 7350.750000 | 0.000 | 1.0000 | |
| Error | 6 | 0.000000 | 0.000000 | | | |
| Randomized Complete Block (RCB) AOV For Agrass ----- Control Apr-29-21 (Data Column 10) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 20178.000000 | | | | |
| Replicate | 2 | 0.000000 | 0.000000 | 0.000 | 1.0000 | |
| Treatment | 3 | 20178.000000 | 6726.000000 | 0.000 | 1.0000 | |
| Error | 6 | 0.000000 | 0.000000 | | | |

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|--|----|----------------|----------------|---------|---------|--|
| ARE 2 POST APPLICATIONS NEEDED FOR CORN WEED MANAGEMENT? Trial ID: CN-12-21 Study Dir.: Location: PONDER FARM Investigator: Eric P. Prostko | | | | | | |
| Randomized Complete Block (RCB) AOV For ----- Zeama Stunt % May-14-21 (Data Column 11) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 891.666667 | | | | |
| Replicate | 2 | 66.666667 | 33.333333 | 0.300 | 0.7513 | |
| Treatment | 3 | 158.333333 | 52.777778 | 0.475 | 0.7111 | |
| Error | 6 | 666.666667 | 111.111111 | | | |
| Randomized Complete Block (RCB) AOV For ----- Zeama Chlorosis % May-14-21 (Data Column 12) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 0.000000000000 | | | | |
| Replicate | 2 | 0.000000000000 | 0.000000000000 | 0.000 | 1.0000 | |
| Treatment | 3 | 0.000000000000 | 0.000000000000 | 0.000 | 1.0000 | |
| Error | 6 | 0.000000000000 | 0.000000000000 | | | |
| Randomized Complete Block (RCB) AOV For ----- Zeama Necrosis % May-14-21 (Data Column 13) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 0.000000000000 | | | | |
| Replicate | 2 | 0.000000000000 | 0.000000000000 | 0.000 | 1.0000 | |
| Treatment | 3 | 0.000000000000 | 0.000000000000 | 0.000 | 1.0000 | |
| Error | 6 | 0.000000000000 | 0.000000000000 | | | |
| Randomized Complete Block (RCB) AOV For Amapa ----- Control % May-14-21 (Data Column 14) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 18948.916667 | | | | |
| Replicate | 2 | 72.666667 | 36.333333 | 2.575 | 0.1558 | |
| Treatment | 3 | 18791.583333 | 6263.861111 | 443.896 | 0.0001 | |
| Error | 6 | 84.666667 | 14.111111 | | | |
| Randomized Complete Block (RCB) AOV For Rapra ----- Control % May-14-21 (Data Column 15) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 19502.916667 | | | | |
| Replicate | 2 | 43.166667 | 21.583333 | 1.469 | 0.3025 | |
| Treatment | 3 | 19371.583333 | 6457.194444 | 439.431 | 0.0001 | |
| Error | 6 | 88.166667 | 14.694444 | | | |
| Randomized Complete Block (RCB) AOV For Agrass ----- Control % May-14-21 (Data Column 16) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 19625.000000 | | | | |
| Replicate | 2 | 12.500000 | 6.250000 | 0.310 | 0.7443 | |
| Treatment | 3 | 19491.666667 | 6497.222222 | 322.621 | 0.0001 | |
| Error | 6 | 120.833333 | 20.138889 | | | |
| Randomized Complete Block (RCB) AOV For ----- ZEAMA PLOT YIELD LBS/PLOT Sep-7-21 (Data Column 17) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 224.000000 | | | | |
| Replicate | 2 | 21.500000 | 10.750000 | 2.563 | 0.1568 | |
| Treatment | 3 | 177.333333 | 59.111111 | 14.093 | 0.0040 | |
| Error | 6 | 25.166667 | 4.194444 | | | |
| Randomized Complete Block (RCB) AOV For ----- ZEAMA PLOT YIELD BU/A Sep-7-21 (Data Column 18) | | | | | | |
| Source | DF | Sum of Squares | Mean Square | F | Prob(F) | |
| Total | 11 | 5767.036588 | | | | |
| Replicate | 2 | 553.532530 | 276.766265 | 2.563 | 0.1568 | |
| Treatment | 3 | 4565.570632 | 1521.856877 | 14.093 | 0.0040 | |
| Error | 6 | 647.933426 | 107.988904 | | | |
| Part Rated Plant = PLANT / PLANT BIOMASS (includes Shrub, Tree, Turf) Rating Unit % = PERCENT ARM Action Codes TY1 = 5.07402198*[17] | | | | | | |

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ARE 2 POST APPLICATIONS NEEDED FOR CORN WEED MANAGEMENT?
 Trial ID: CN-12-21 Study Dir.:
 Location: PONDER FARM Investigator: Eric P. Prostko

| Weed Code | | | | | | ----- Zeama Plant, - Injury % Apr-21-21 | Amapa ----- Control % Apr-21-21 | Rapra ----- Control % Apr-21-21 | Agrass ----- Control % Apr-21-21 | ----- Zeama Stunting % Apr-29-21 |
|------------------|------------|------------------|-------------|-------------|---------|--|---|---|--|--|
| Crop Code | Part Rated | Rating Data Type | Rating Unit | Rating Date | Trt No. | 1 | 2 | 3 | 4 | 5 |
| 1 NTC | | | | | 101 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | 203 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | 301 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | Mean = | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 ROUNDUP P-MAX3 | 5.88 SL | 22.0 oz/a | EPOST A | | 102 | 0.0 | 99.0 | 99.0 | 99.0 | 0.0 |
| AATREX | 4 L | 64.0 oz/a | EPOST A | | 201 | 15.0 | 99.0 | 95.0 | 65.0 | 20.0 |
| | | | | | 303 | 0.0 | 99.0 | 99.0 | 95.0 | 0.0 |
| | | | | | Mean = | 5.0 | 99.0 | 97.7 | 86.3 | 6.7 |
| 3 HALEX GT | 4.39 SC | 58.0 oz/a | MPOST B | | 103 | 0.0 | 99.0 | 99.0 | 99.0 | 0.0 |
| ATRAZINE | 4 L | 64.0 oz/a | MPOST B | | 204 | 0.0 | 99.0 | 99.0 | 95.0 | 10.0 |
| INDUCE | | 0.25 % v/v | MPOST B | | 302 | 0.0 | 99.0 | 99.0 | 99.0 | 5.0 |
| | | | | | Mean = | 0.0 | 99.0 | 99.0 | 97.7 | 5.0 |
| 4 ROUNDUP P-MAX3 | 5.88 SL | 22.0 oz/a | EPOST A | | 104 | 15.0 | 99.0 | 99.0 | 65.0 | 40.0 |
| AATREX | 4 L | 32.0 oz/a | EPOST A | | 202 | 0.0 | 99.0 | 99.0 | 75.0 | 10.0 |
| HALEX GT | 4.39 SC | 58.0 oz/a | LPOST C | | 304 | 0.0 | 99.0 | 90.0 | 65.0 | 0.0 |
| ATRAZINE | 4 L | 48.0 oz/a | LPOST C | | | | | | | |
| INDUCE | | 0.25 % v/v | LPOST C | | | | | | | |
| | | | | | Mean = | 5.0 | 99.0 | 96.0 | 68.3 | 16.7 |

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ARE 2 POST APPLICATIONS NEEDED FOR CORN WEED MANAGEMENT?
 Trial ID: CN-12-21 Study Dir.:
 Location: PONDER FARM Investigator: Eric P. Prostko

| Weed Code | | | | | | ----- | ----- | Amapa | Rapra | Agrass | | | |
|------------------|----------------|-----------|-----------|--------------|-------------------|-----------|-----------|-----------|-----------|-----------|------|------|------|
| Crop Code | | | | | | Zeama | Zeama | ----- | ----- | ----- | | | |
| Part Rated | | | | | | | | | | | | | |
| Rating Data Type | | | | | | Chlorosis | Necrosis | Control | Control | Control | | | |
| Rating Unit | | | | | | % | % | % | % | | | | |
| Rating Date | | | | | | Apr-29-21 | Apr-29-21 | Apr-29-21 | Apr-29-21 | Apr-29-21 | | | |
| Trt No. | Treatment Name | Form Conc | Form Type | Product Rate | Product Rate Unit | Grow Stg | Appl Code | Plot | 6 | 7 | 8 | 9 | 10 |
| 1 | NTC | | | | | | | 101 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | 203 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | 301 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | Mean = | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | ROUNDUP P-MAX3 | 5.88 | SL | 22.0 oz/a | | EPOST A | | 102 | 0.0 | 0.0 | 99.0 | 99.0 | 50.0 |
| | AATREX | 4 | L | 64.0 oz/a | | EPOST A | | 201 | 0.0 | 0.0 | 99.0 | 99.0 | 50.0 |
| | | | | | | | | 303 | 0.0 | 0.0 | 99.0 | 99.0 | 50.0 |
| | | | | | | | | Mean = | 0.0 | 0.0 | 99.0 | 99.0 | 50.0 |
| 3 | HALEX GT | 4.39 | SC | 58.0 oz/a | | MPOST B | | 103 | 0.0 | 0.0 | 99.0 | 99.0 | 99.0 |
| | ATRAZINE | 4 | L | 64.0 oz/a | | MPOST B | | 204 | 0.0 | 0.0 | 99.0 | 99.0 | 99.0 |
| | INDUCE | | | 0.25 % v/v | | MPOST B | | 302 | 0.0 | 0.0 | 99.0 | 99.0 | 99.0 |
| | | | | | | | | Mean = | 0.0 | 0.0 | 99.0 | 99.0 | 99.0 |
| 4 | ROUNDUP P-MAX3 | 5.88 | SL | 22.0 oz/a | | EPOST A | | 104 | 0.0 | 0.0 | 99.0 | 99.0 | 99.0 |
| | AATREX | 4 | L | 32.0 oz/a | | EPOST A | | 202 | 0.0 | 0.0 | 99.0 | 99.0 | 99.0 |
| | HALEX GT | 4.39 | SC | 58.0 oz/a | | LPOST C | | 304 | 0.0 | 0.0 | 99.0 | 99.0 | 99.0 |
| | ATRAZINE | 4 | L | 48.0 oz/a | | LPOST C | | | | | | | |
| | INDUCE | | | 0.25 % v/v | | LPOST C | | | | | | | |
| | | | | | | | | Mean = | 0.0 | 0.0 | 99.0 | 99.0 | 99.0 |

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ARE 2 POST APPLICATIONS NEEDED FOR CORN WEED MANAGEMENT?
 Trial ID: CN-12-21 Study Dir.:
 Location: PONDER FARM Investigator: Eric P. Prostko

| Weed Code | | | | | | ----- Zeama | ----- Zeama | ----- Zeama | Amapa ----- |
|-----------|----------------|------------------|-------------|--------------|-------------------|-------------------------|-----------------------------|----------------------------|---------------------------|
| Crop Code | Part Rated | Rating Data Type | Rating Unit | Rating Date | | Stunt % May-14-21 | Chlorosis % May-14-21 | Necrosis % May-14-21 | Control % May-14-21 |
| Trt No. | Treatment Name | Form Conc | Form Type | Product Rate | Product Rate Unit | Grow Stg | Appl Code | Plot | |
| | | | | | | | | | |
| | | | | | | | | | |
| 1 | NTC | | | | | | | | |
| | | | | | | | 101 | | 0.0 |
| | | | | | | | 203 | | 0.0 |
| | | | | | | | 301 | | 0.0 |
| | | | | | | | Mean = | | 0.0 |
| 2 | ROUNDUP P-MAX3 | 5.88 | SL | 22.0 oz/a | | EPOST A | 102 | | 0.0 |
| | AATREX | 4 | L | 64.0 oz/a | | EPOST A | 201 | | 10.0 |
| | | | | | | | 303 | | 0.0 |
| | | | | | | | Mean = | | 3.3 |
| 3 | HALEX GT | 4.39 | SC | 58.0 oz/a | | MPOST B | 103 | | 0.0 |
| | ATRAZINE | 4 | L | 64.0 oz/a | | MPOST B | 204 | | 0.0 |
| | INDUCE | | | 0.25 % v/v | | MPOST B | 302 | | 10.0 |
| | | | | | | | Mean = | | 3.3 |
| 4 | ROUNDUP P-MAX3 | 5.88 | SL | 22.0 oz/a | | EPOST A | 104 | | 30.0 |
| | AATREX | 4 | L | 32.0 oz/a | | EPOST A | 202 | | 0.0 |
| | HALEX GT | 4.39 | SC | 58.0 oz/a | | LPOST C | 304 | | 0.0 |
| | ATRAZINE | 4 | L | 48.0 oz/a | | LPOST C | | | |
| | INDUCE | | | 0.25 % v/v | | LPOST C | | | |
| | | | | | | | Mean = | | 10.0 |

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ARE 2 POST APPLICATIONS NEEDED FOR CORN WEED MANAGEMENT?
 Trial ID: CN-12-21 Study Dir.:
 Location: PONDER FARM Investigator: Eric P. Prostko

| Weed Code | | | | | | Rapra | Agrass | ----- | ----- |
|------------------|----------------|-----------|-----------|--------------|-------------------|-----------|-----------|----------|----------|
| Crop Code | | | | | | ----- | ----- | ZEAMA | ZEAMA |
| Part Rated | | | | | | | | PLOT, - | PLOT, - |
| Rating Data Type | | | | | | Control | Control | YIELD | YIELD |
| Rating Unit | | | | | | % | % | LBS/PLOT | BU/A |
| Rating Date | | | | | | May-14-21 | May-14-21 | Sep-7-21 | Sep-7-21 |
| Trt No. | Treatment Name | Form Conc | Form Type | Product Rate | Product Rate Unit | Grow Stg | Appl Code | Plot | |
| | | | | | | | | | |
| 1 | NTC | | | | | | | | |
| | | | | | | | 101 | 0.0 | 0.0 |
| | | | | | | | 203 | 0.0 | 0.0 |
| | | | | | | | 301 | 0.0 | 0.0 |
| | | | | | | | Mean = | 0.0 | 0.0 |
| 2 | ROUNDUP P-MAX3 | 5.88 | SL | 22.0 oz/a | | EPOST A | 102 | 99.0 | 30.0 |
| | AATREX | 4 | L | 64.0 oz/a | | EPOST A | 201 | 85.0 | 20.0 |
| | | | | | | | 303 | 95.0 | 30.0 |
| | | | | | | | Mean = | 93.0 | 26.7 |
| 3 | HALEX GT | 4.39 | SC | 58.0 oz/a | | MPOST B | 103 | 99.0 | 95.0 |
| | ATRAZINE | 4 | L | 64.0 oz/a | | MPOST B | 204 | 95.0 | 90.0 |
| | INDUCE | | | 0.25 % v/v | | MPOST B | 302 | 95.0 | 95.0 |
| | | | | | | | Mean = | 96.3 | 93.3 |
| 4 | ROUNDUP P-MAX3 | 5.88 | SL | 22.0 oz/a | | EPOST A | 104 | 90.0 | 85.0 |
| | AATREX | 4 | L | 32.0 oz/a | | EPOST A | 202 | 90.0 | 95.0 |
| | HALEX GT | 4.39 | SC | 58.0 oz/a | | LPOST C | 304 | 85.0 | 90.0 |
| | ATRAZINE | 4 | L | 48.0 oz/a | | LPOST C | | | |
| | INDUCE | | | 0.25 % v/v | | LPOST C | | | |
| | | | | | | | Mean = | 88.3 | 90.0 |

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ARE 2 POST APPLICATIONS NEEDED FOR CORN
WEED MANAGEMENT?
Trial ID: CN-12-21 Study Dir.:
Location: PONDER FARM Investigator: Eric P. Prostko

Part Rated
Plant = PLANT / PLANT BIOMASS (includes Shrub, Tree, Turf)
Rating Unit
% = PERCENT
ARM Action Codes
TY1 = 5.07402198*[17]