| Г | Glyphosate-resistant Palmer amaranth response to Valor and Cobra programs. Prot (67.01) | | | | | | | | | | | |
|--------------|--|----------------------------|---------|------|--------|----------------------|---------|----------------------------|------|--------------|-----|---|
| | | | | | 747 | | | | | | | |
| | al ID: C4-08 | + 17 | | | | | | ey Culpeppe | | | | |
| | ation: Macon Coun | | | | vestl | yalor• | SLAIIIE | ey Culpeppe | L | | | |
| Rep: Spra | s: 3 ıy vol: 14.8 gal/ac | Plots: 12 by 2 Mix size | | | in 1 1 | 575) | | | | | | |
| | Treatment | Form Form | | | | Grow | Appl | Amt Product | | | Zon | |
| | Name | Conc Unit | | Rate | | | | to Measure | 1 | ю. Бу г 2 | 3 | |
| | Non-treated | | турс | Nato | Onit | Olg | oouc | | 101 | 205 | 308 | |
| - | | E 1 | DC | 2 | 07/4 | nranlant | ٨ | 1 519 9/001 | | 203 | 307 | |
| 2 | Valor Roundup PowerMax | 51 5.5 | DG L | | | preplant preplant | | 1.518 g/mx 17.42 ml/mx | 102 | 203 | 307 | |
| | Roundup PowerMax | 5.5 5.5 | L | | | POST | C | 17.42 ml/mx | | | | |
| | Dual Magnum | 7.62 | L | | | POST | c | 12.67 ml/mx | | | | |
| | Valor | 51 | DG | | | Overtop | - | 1.518 g/mx | | | | |
| | Roundup PowerMax | 5.5 | L | | | Overtop | | 17.42 ml/mx | | | | |
| | Direx | 4 | L | 0.8 | QT/A | Overtop | Е | 20.27 ml/mx | | | | |
| 3 | Valor | 51 | DG | 2 | OZ/A | preplant | А | 1.518 g/mx | 103 | 208 | 306 | |
| 1 | Roundup PowerMax | 5.5 | L | | | preplant | | 17.42 ml/mx | | | | |
| 1 | Roundup PowerMax | 5.5 | L | 22 | OZ/A | POST | С | 17.42 ml/mx | | | | |
| | Staple | 3.2 | L | | | POST | С | 1.346 ml/mx | | | | |
| | Valor | 51 | DG | | | Overtop | | 1.518 g/mx | | | | |
| | Roundup PowerMax | 5.5 | L | | | Overtop | | 17.42 ml/mx | | | | |
| | Direx | 4 | L | | | Overtop | | 20.27 ml/mx | | | | |
| 4 | Valor | 51 | DG | | | preplant | | 1.518 g/mx | 104 | 206 | 303 | |
| | Roundup PowerMax | 5.5 | L | | | preplant | - | 17.42 ml/mx | | | | |
| | Roundup PowerMax | 5.5 | L | | | POST | C | 17.42 ml/mx | | | | |
| | Dual Magnum | 7.62 | L | | | POST | С | 12.67 ml/mx | | | | |
| | Cobra Boundun BowerMex | 2 5.5 | L | | OZ/A | MPD | D | 9.898 ml/mx 17.42 ml/mx | | | | |
| | Roundup PowerMax Dual Magnum | 5.5 7.62 | L L | | PT/A | | D D | 25.34 ml/mx | | | | |
| 5 | Valor | 51 | DG | | | | _ | | 105 | 207 | 301 | |
| Э | Roundup PowerMax | 5.5 | L | | | preplant preplant | | 1.518 g/mx 17.42 ml/mx | | 207 | 301 | |
| | Roundup PowerMax | 5.5 | L | | | POST | c | 17.42 ml/mx | | | | |
| | Dual Magnum | 7.62 | L | | | POST | č | 12.67 ml/mx | | | | |
| | Cobra | 2 | L | | | MPD | D | 9.898 ml/mx | | | | |
| | Roundup PowerMax | 5.5 | L | | | MPD | D | 17.42 ml/mx | | | | |
| 1 | Dual Magnum | 7.62 | L | | PT/A | | D | 25.34 ml/mx | | | | |
| 1 | Direx | 4 | L | | | Overtop | Е | 25.34 ml/mx | | | | |
| | MSMA | 6 | L | 2.5 | PT/A | Overtop | Ε | 31.67 ml/mx | | | | |
| 6 | Valor | 51 | DG | 2 | OZ/A | preplant | Α | 1.518 g/mx | 106 | 202 | 305 | |
| 1 | Prowl H20 | 3.8 | L | | | preplant | | 25.34 ml/mx | | | | |
| 1 | Roundup PowerMax | 5.5 | L | | | preplant | А | 17.42 ml/mx | | | | |
| 1 | Roundup PowerMax | 5.5 | L | | | POST | С | 17.42 ml/mx | | | | |
| 1 | Dual Magnum | 7.62 | L | | | POST | C | 12.67 ml/mx | | | | |
| 1 | Valor | 51 | DG | | | Overtop | | 1.518 g/mx | | | | |
| 1 | Roundup PowerMax | 5.5 | L | | | Overtop | | 17.42 ml/mx | | | | |
| - | Direx | 4 | | | | Overtop | | 20.27 ml/mx | 4.6- | <u> </u> | | |
| 7 | Valor | 51 | DG | | | preplant | | 1.518 g/mx | 107 | 204 | 302 | |
| 1 | Roundup PowerMax | 5.5 | L | | | preplant | | 17.42 ml/mx | | | | |
| 1 | Prowl H20 Roundup PowerMax | 3.8 5.5 | L | | PT/A | PRE | B | 25.34 ml/mx | | | | |
| 1 | Roundup PowerMax Dual Magnum | 5.5 7.62 | L L | | | POST | C C | 17.42 ml/mx 12.67 ml/mx | | | | |
| 1 | Valor | 7.62 51 | L DG | | | Overtop | | 1.518 g/mx | | | | |
| 1 | Roundup PowerMax | 5.5 | L | | | Overtop | | 17.42 ml/mx | | | | |
| 1 | Direx | 4 | L | | | Overtop | | 20.27 ml/mx | | | | |
| I | | • | - | 0.0 | | 5.0nop | - | | | | | I |

| Reps: 3 | Plots: 12 by 25 feet |
|------------------------|-----------------------------------|
| Spray vol: 14 8 gal/ac | Mix size: 1.5 liters (min 1.1575) |

| Opre | ay vol. 14.0 yai/ac | 10 | | . 1.5 m | .ers (m | | 515) | | | | | | | | |
|------|---------------------|------|------|---------|---------|------|----------|------|-------------|--------|---------|-----|----|------|------|
| Trt | Treatment | Form | Form | Form | | Rate | Grow | Appl | Amt Product | Plot N | o. By l | Rep | | | |
| No. | Name | Conc | Unit | Туре | Rate | Unit | Stg | Code | to Measure | 1 | 2 | 3 | | | |
| 8 | Valor | 51 | | DG | 2 | OZ/A | preplant | А | 1.518 g/mx | 108 | 201 | 304 | | | |
| | Roundup PowerMax | 5.5 | | L | 22 | OZ/A | preplant | Α | 17.42 ml/mx | | | | l. | | |
| | Staple | 3.2 | | L | 1.7 | OZ/A | PRE | В | 1.346 ml/mx | | | | i. | | |
| | Cotoran | 4 | | L | 1 | QT/A | PRE | В | 25.34 ml/mx | | | | l. | | |
| | Roundup PowerMax | 5.5 | | L | 22 | OZ/A | POST | С | 17.42 ml/mx | | | | l. | | |
| | Dual Magnum | 7.62 | | L | 1 | PT/A | POST | С | 12.67 ml/mx | | | | i. | | |
| | Valor | 51 | | DG | 2 | OZ/A | Overtop | E | 1.518 g/mx | | | | i. | | |
| | Roundup PowerMax | 5.5 | | L | 22 | OZ/A | Overtop | E | 17.42 ml/mx | | | | | | |
| | Direx | 4 | | L | 0.8 | QT/A | Overtop | E | 20.27 ml/mx | | | | | | |

Sort Order: Treatment

Product quantities required for listed treatments and applications in one trial:

| Amount* | Unit | Treatment Name | Form Conc | Form Type | Lot Code |
|---------|------|------------------|-----------|-----------|----------|
| 22.771 | g | Valor | 51 | DG | |
| 457.270 | ml | Roundup PowerMax | 5.5 | L | |
| 158.345 | ml | Dual Magnum | 7.62 | L | |
| 158.345 | ml | Direx | 4 | L | |
| 3.365 | ml | Staple | 3.2 | L | |
| 24.744 | ml | Cobra | 2 | L | |
| 39.586 | ml | MSMA | 6 | L | |
| 63.338 | ml | Prowl H20 | 3.8 | L | |
| 31.669 | ml | Cotoran | 4 | L | |

'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 1.5 liters (mix size basis).
Product amount calculations increased 25 % for overage adjustment.

Trial Comments

OBJECTIVE: Determine Palmer response to various Valor and Cobra systems.

Palmer response:

1. Valor applied preplant provided excellent residual control; however, the strip tillage process destroyed the weed control by Valor in the row.

2. Just before POST treatments were applied the most effective program included a PRE application of Staple + Cotoran which provided control in the strip following the strip tillage operation.

- 3. At 17 d after the POST treatment, control was greater than 80% only with the system including Staple + Cotoran PRE.
- 4. MPD treatments had little impact because the pigweed was too large to control.

5. Layby options actually had to be applied topically because the Palmer was too large to direct. Even with topical applications, control was poor with layby treatments.

Cotton Response:

- 1. A one inch rainfall occurred after the PRE application; thus, Staple + Cotoran PRE stunted early season growth by 20%.
- 2. Topical application of Roundup + Dual Magnum caused 13 to 15% necrotic spotting.
- 3. Directed Cobra treatments caused little injury.
- 4. Topical applications of Valor + Direx + Roundup caused severe cotton injury on those plants that the spray actually contacted.

CONCLUSIONS:

- 1. Although Valor is extremely effective applied preplant, the strip tillage operation destroys herbicide control in the drill.
- 2. Valor needs to be applied after running the strip till or a PRE herbicide must be applied.

GENERAL COMMENTS:

Wheat was used for a cover crop. Roundup was applied on March 26 to kill 15 in tall wheat. Valor was applied preplant on April 11. Strip tillage operation and planting occurred on April 24. Paraquat was applied PRE over trial area.
April 11, 2008 - No weeds emerged.

3. June 20, 2008 - Layby applied to topically because pigweed larger than cotton.

4. Preplant treatments received rainfall within 5 days. Additional rainfall during times when herbicides were applied after planting.: Apr 28 1 in

May 90.4 inMay 112.7 inMay 200.2 inMay 240.3 inJun 110.9 inJun 170.6 inJun 221 inJul 50.5 in

Jul 21 1 in

| Glyphosate-res | istant Pal | mer amara | nth respo | nse to Va | lor and C | obra prog | rams. | |
|--|--|-----------|--------------------------|-----------|-----------|-----------|--------|---------|
| | | | ot (67.01 | - | | | | |
| Trial ID: C4-08 Location: Macon County | т | | r.: Stanlo or: Stanlo | | | | | |
| | | AMAPA | | | | AMAPA | | |
| Weed Code Crop Code | AMAPA GOSHI | GOSHI | | GOSHI | GOSHI | GOSHI | | GOSHI |
| Rating Data Type | control | control | | control | control | control | | injury |
| Rating Unit | % | % | | % | % | % | % | % |
| Rating Date | | | May-30-08 | | | | | |
| Trt-Eval Interval | 0 DA-C | 10 DA-C | 17 DA-C | 12 DA-D | 20 DA-D | 6 DA-E | 0 DA-C | 10 DA-C |
| Trt Treatment Rate | | | | | _ | | _ | |
| No. Name Rate Unit | | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1 Non-treated | 0 d | 0 c | | 0 d | 0 b | 0 e | 0 b | 0 C |
| 2 Valor 2 OZ/ Roundup PowerMax 22 OZ/ | | 83 b | 65 bcd | 40 bc | 47 a | 53 cd | 0 b | 13 b |
| Roundup PowerMax 22 OZ/ Roundup PowerMax 22 OZ/ | | | | | | | | |
| Dual Magnum 1 PT/A | | | | | | | | |
| Valor 2 OZ/ | A | | | | | | | |
| Roundup PowerMax 22 OZ/ | | | | | | | | |
| Direx 0.8 QT// | | | | | | | | |
| 3 Valor 2 OZ/ | | 94 a | 75 ab | 62 ab | 60 a | 70 ab | 0 b | 14 b |
| Roundup PowerMax 22 OZ// Roundup PowerMax 22 OZ// | | | | | | | | |
| Staple 1.7 OZ/ | | | | | | | | |
| Valor 2 OZ/ | | | | | | | | |
| Roundup PowerMax 22 OZ/ | A CONTRACTOR OF A CONTRACTOR A | | | | | | | |
| Direx 0.8 QT// | A Contraction of the second seco | | | | | | | |
| 4 Valor 2 OZ/ | | 85 b | 72 abc | 58 abc | 57 a | 38 d | 0 b | 14 b |
| Roundup PowerMax 22 OZ/ | | | | | | | | |
| Roundup PowerMax 22 OZ// Dual Magnum 1 PT// | | | | | | | | |
| Cobra 12.5 OZ/ | | | | | | | | |
| Roundup PowerMax 22 OZ/ | | | | | | | | |
| Dual Magnum 2 PT/A | | | | | | | | |
| 5 Valor 2 OZ/ | 63 c | 80 b | 57 cd | 50 abc | 57 a | 55 bc | 0 b | 15 b |
| Roundup PowerMax 22 OZ/ | | | | | | | | |
| Roundup PowerMax 22 OZ/ | | | | | | | | |
| Dual Magnum 1 PT// Cobra 12.5 OZ// | | | | | | | | |
| Roundup PowerMax 22 OZ/ | | | | | | | | |
| Dual Magnum 2 PT/A | | | | | | | | |
| Direx 1 QT// | | | | | | | | |
| MSMA 2.5 PT/A | \ | | | | | | | |
| 6 Valor 2 OZ/ | | 78 b | 55 d | 30 c | 47 a | 52 cd | 0 b | 13 b |
| Prowl H20 2 PT/A | | | | | | | | |
| Roundup PowerMax 22 OZ// Roundup PowerMax 22 OZ// | | | | | | | | |
| Dual Magnum 1 PT/A | | | | | | | | |
| Valor 2 OZ/ | | | | | | | | |
| Roundup PowerMax 22 OZ/ | A Contraction of the second seco | | | | | | | |
| Direx 0.8 QT/ | | | | | | | | |
| 7 Valor 2 OZ/ | | 85 b | 67 bcd | 65 ab | 53 a | 60 bc | 0 b | 14 b |
| Roundup PowerMax 22 OZ/ | | | | | | | | |
| Prowl H20 2 PT/A | | | | | | | | |
| Roundup PowerMax 22 OZ// Dual Magnum 1 PT// | | | | | | | | |
| Valor 2 OZ/ | | | | | | | | |
| Roundup PowerMax 22 OZ/ | | | | | | | | |
| Direx 0.8 QT// | | | | | | | | |

| | | | | _ | | -) - | | | | | |
|----------|-----------------|------|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Weed | Code | | | AMAPA | AMAPA | AMAPA | AMAPA | AMAPA | AMAPA | | |
| Crop C | Code | | | GOSHI |
| Rating | Data Type | | | control | control | control | control | control | control | injury | injury |
| Rating | Rating Unit | | | % | % | % | % | % | % | % | % |
| Rating | Date | | | May-13-08 | May-23-08 | May-30-08 | Jun-11-08 | Jun-19-08 | Jun-26-08 | May-13-08 | May-23-08 |
| Trt-Eva | al Interval | | | 0 DA-C | 10 DA-C | 17 DA-C | 12 DA-D | 20 DA-D | 6 DA-E | 0 DA-C | 10 DA-C |
| Trt Tr | reatment | | Rate | | | | | | | | |
| No. Na | ame | Rate | Unit | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 8 Va | alor | 2 | OZ/A | 88 a | 99 a | 85 a | 75 a | 63 a | 76 a | 20 a | 18 a |
| R | oundup PowerMax | 22 | OZ/A | | | | | | | | |
| St | taple | 1.7 | OZ/A | | | | | | | | |
| C | otoran | 1 | QT/A | | | | | | | | |
| R | oundup PowerMax | 22 | OZ/A | | | | | | | | |
| D | ual Magnum | 1 | PT/A | | | | | | | | |
| Va | alor | 2 | OZ/A | | | | | | | | |
| R | oundup PowerMax | 22 | OZ/A | | | | | | | | |
| Di | irex | 0.8 | QT/A | | | | | | | | |
| LSD (F | P=.05) | | | 16.1 | 7.2 | 13.9 | 28.0 | 20.9 | 15.1 | 0.0 | 2.5 |
| | ard Deviation | | | 9.2 | 4.1 | 8.0 | 16.0 | 11.9 | 8.6 | 0.0 | 1.4 |
| CV | | | | 14.39 | 5.4 | | | 24.89 | 17.11 | 0.0 | |
| Bartlett | t's X2 | | | 11.295 | 7.557 | 1.731 | 5.605 | 4.745 | 2.189 | 0.0 | 1.119 |
| P(Bartl | lett's X2) | | | 0.08 | 0.109 | 0.943 | 0.347 | 0.577 | 0.901 | | 0.952 |

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

| Wee | ed Code | | | | |
|------|----------------------|------------|------|-----------|-----------|
| Crop | p Code | | | GOSHI | GOSHI |
| | ng Data Type | | | injury | injury |
| | ng Unit | | | % | % |
| | ng Date | | | May-30-08 | Jun-26-08 |
| | Eval Interval | | | 17 DA-C | 6 DA-E |
| | | | | | 0 DA-L |
| Trt | Treatment | - (| Rate | | 10 |
| No. | Name | Rate | Unit | 9 | 10 |
| 1 | Non-treated | | | 0 b | 0 d |
| 2 | Valor | 2 | OZ/A | 0 b | 43 ab |
| | Roundup PowerMax | 22 | OZ/A | | |
| | Roundup PowerMax | | OZ/A | | |
| | Dual Magnum | | PT/A | | |
| | Valor | | OZ/A | | |
| | Roundup PowerMax | | OZ/A | | |
| | Direx | | QT/A | | |
| | | | | 10 | 50 |
| 3 | Valor | _ | OZ/A | 12 a | 53 a |
| | Roundup PowerMax | | OZ/A | | |
| | Roundup PowerMax | 22 | OZ/A | | |
| | Staple | 1.7 | | | |
| | Valor | 2 | OZ/A | | |
| | Roundup PowerMax | 22 | OZ/A | | |
| | Direx | 0.8 | QT/A | | |
| 4 | Valor | 2 | OZ/A | 0 b | 0 d |
| | Roundup PowerMax | - | OZ/A | 0.0 | θü |
| | Roundup PowerMax | | OZ/A | | |
| | - | 1 | PT/A | | |
| | Dual Magnum | | OZ/A | | |
| | Cobra | - | | | |
| | Roundup PowerMax | | OZ/A | | |
| | Dual Magnum | | PT/A | | |
| 5 | Valor | | OZ/A | 7 ab | 28 c |
| | Roundup PowerMax | 22 | OZ/A | | |
| | Roundup PowerMax | 22 | OZ/A | | |
| | Dual Magnum | 1 | PT/A | | |
| | Cobra | 12.5 | OZ/A | | |
| | Roundup PowerMax | 22 | OZ/A | | |
| | Dual Magnum | | PT/A | | |
| | Direx | 1 | QT/A | | |
| | MSMA | - | PT/A | | |
| 6 | Valor | | OZ/A | 7 ab | 37 bc |
| 0 | Prowl H20 | | | i ab | 57 00 |
| Î | | | PT/A | | |
| | Roundup PowerMax | | OZ/A | | |
| | Roundup PowerMax | | OZ/A | | |
| | Dual Magnum | 1 | PT/A | | |
| | Valor | | OZ/A | | |
| | Roundup PowerMax | | OZ/A | | |
| | Direx | 0.8 | QT/A | | |
| 7 | Valor | 2 | OZ/A | 10 a | 40 bc |
| | Roundup PowerMax | | OZ/A | | |
| | Prowl H20 | | PT/A | | |
| Î | Roundup PowerMax | | OZ/A | | |
| | - | | PT/A | | |
| Î | Dual Magnum Valor | | | | |
| | Valor | | OZ/A | | |
| | Roundup PowerMax | | OZ/A | | |
| | Direx | 0.8 | QT/A | | |

| Cro Rati Rati Rati | ed Code p Code ng Data Type ing Unit ng Date Eval Interval | GOSHI injury % May-30-08 17 DA-C | GOSHI injury % Jun-26-08 6 DA-E | | |
|-----------------------------|---|--|--|------|-------|
| Trt No | Treatment Name | Rate | Rate Unit | 9 | 10 |
| 8 | Valor Roundup PowerMax Staple Cotoran Roundup PowerMax Dual Magnum Valor Roundup PowerMax Direx | 22 1.7 1 22 1 2 22 | OZ/A OZ/A QT/A OZ/A PT/A OZ/A QZ/A | 5 ab | 40 bc |
| Star CV Bart | 0 (P=.05) ndard Deviation lett's X2 artlett's X2) | 8.5 4.9 97.28 1.588 0.662 | 11.7 6.7 22.16 1.485 0.829 | | |

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Jun-12-09 (C4-08)

University of Georgia

| | Glyphosate-resistant | Palmer amaranth response to Valor an | nd Cobra programs. |
|-----------------|----------------------|--------------------------------------|--------------------|
| | | Prot (67.01) | |
| Trial ID: C4-0 | | Study Dir.: Stanley Culpepper | |
| Location: Macon | n County | Investigator: Stanley Culpepper | |
| | | RIAL INFORMATION | |
| | : Stanley Culpepper | Title: Ext. Weed | Science |
| | Univ. of Georgia | | |
| Postal Code: | 31794 | | |
| | ~] ~] | | |
| | Stanley Culpepper | Title: Ext. Weed | Science |
| | Univ. of Georgia | | |
| Postal Code: | 31/94 | | |
| | TRI | AL LOCATION | |
| City: Ma | acon Co. | Trial Status: | completed |
| State/Prov.: G | A | Trial Reliability: | good |
| Postal Code: 3 | 1068 | Initiation Date: | Apr-11-08 |
| | SA | Planned Completion Date: | |
| E-Longitude of | LL Corner °: | N-Latitude of LL Corner °: | |
| | Corner: Uni | t: Angle y-axis to North °: | |
| Directions: | | | |
| | COOPER | ATOR/LANDOWNER | |
| Cooperator: | COOPERA | - | |
| Org: | | Phone No: | |
| Address 1: | | Fax No: | |
| Address 2: | | | |
| City: | | | |
| State/Prov: | | | |
| Postal Code: _ | | | |
| | | | |
| | | Conducted Under GEP (Y/N): N | |
| Guidelines: _ | Guideline 1 | Description: | |
| Objective: | | | |
| objeccive. | | | |
| Conclusions: | | | |

CROP AND WEED DESCRIPTION

| Weed | Code | Common | Name | Scientifi | c Name |
|------|-------|-----------|--------|------------|---------|
| 1. | AMAPA | Amaranth, | Palmer | Amaranthus | palmeri |
| | | | | | |
| amon | 1. 00 | | | | |

| Crop | 1: | GOSHI | COTTON | SHORT | STAP | LE | | | Va | ariety: | WFR | 485 | |
|-------|------|----------------|---------------|-------|-------|---------|--------|--------|--------|----------|-------|--------|-----------|
| Plant | ing | Date: | Apr-24-08 | 3 | | Plant | ing M | lethod | 1: hil | ll dropp | ped | | |
| Rate: | 2 | 8 | 3 in | De | pth: | 0.5 | in | | Perer | nnial Ag | ge: _ | | |
| Row S | pac: | ing: 36 | 6 in | Spac | ing W | lithin | Row: | 8.5 | in | Seed | d Bec | 1: bed | lded |
| Soil | Temp | peratu | re: 85 | F Soi | l Moi | .sture: | mois | st | | Emerger | nce I | Date: | Apr-30-08 |
| | | | | | SITE | AND I | DESIGN | r | | | | | |

Plot Width, Unit: 12FTPlot Length, Unit: 25FTReps: 3Site Type:On farmTillage Type:Conservation tillageStudy Design: RANDOMIZED COMPLETE BLOCK

Trial Initiation Comments:

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

MAINTENANCE

Field Prep./Maintenance: Wheat was used for a cover crop. Roundup was applied on March 26 to kill 15 in tall wheat. Valor was applied preplant on April 11. Strip tilage operation and planting occurred on April 24. Paraquat was appllied PRE over trial area.

| | | | Maintenance | | | | | n F | orm | Form | | | Rate | | |
|--|---|---|--|--|--|---|---|---------------------------------------|---|---|--|---|------|--------|------|
| No. | Date | Treatment 1 | | | Name | | Conc | U | nit | Туре | Ra | te | | Unit | |
| 1. | | | | | | | | | | | | | | | |
| % Si | and: 82 ilt: 14 lay: 4 | % OM: pH: CEC: | 2.0 6.4 | - | Tex Soi Fer | kture: il Nam rt. Le | wel: | loamy | y sand | d | | | | | |
| | | Ti am am t | ADDI | TION | | | D EL | | | | 1 | | | | |
| | | Element | | | | Qua | antity | , | Un | ΤĊ | | | | | |
| | Date | Time | Amoun | | | e cone | DITION | S | Туре | | | | In | terval | Unit |
| | | | | | | | | | -150 | | | | | | |
| Over | all Moistu Sest Weather | | | | | | | | | Dista | ance: | : | Un | nit: | - |
| | | | on:A | PPLI | CATIC | ON DES | CRIPT | | | | ance: | | Ur. | it: | - |
| Over | sest Weather | r Statio | on: | PPLI | CATIC | ON DES B | CRIPT | | - | D | | E |] | nit: | - |
| Over Clos Appl | sest Weather | r Statio | A Apr-11 | PPLI 1-08 | CATIC H Apr-2 | DN DES B 25-08 | CRIPT C May-1 | 3-08 | May- | D 30-08 | Jun- | E -20-08 |] | | - |
| Over Clos Appl Time | sest Weather lication Da e of Day: | r Static | A Apr-11 6:30 a | PPLI L-08 am | CATIO H Apr-2 2:00 | DN DES B 25-08 pm | CRIPT C May-1 6:00 | 3-08 pm | May- | D 30-08 0 am | Jun- 9:00 | E 20-08) am | 3 | it: | - |
| Over Clos Appl Time Appl | sest Weather lication Da e of Day: lication Me | r Static te: thod: | Apr-11 6:30 abroadd | APPLI L-08 am cast | Apr-2 2:00 broad | DN DES B 25-08 pm | CRIPT C May-1 6:00 broad | 3-08 pm | May- 10:0 broad | D 30-08 0 am | Jun- 9:00 broa | E 20-08 adcast | 3 | nit: | - |
| Over Clos App] Time App] App] | sest Weather lication Da e of Day: lication Me lication Ti | r Static te: thod: ming: | Apr-11 6:30 a broadc | APPLI L-08 am cast ant | Apr-2 2:00 PRE | DN DES B 25-08 pm dcast | CRIPT C May-1 6:00 broad POST | 3-08 pm cast | May- 10:0 broad | D 30-08 0 am dcast | Jun- 9:00 broa | E 20-08 am adcast | 3 | lit: | - |
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| Over Clos Appl Time Appl Appl Air | sest Weather lication Da e of Day: lication Me lication Tim lic. Placem Temp., Uni | te: thod: ming: ent: t: | Apr-11 6:30 a broadc prepla overto | APPLI L-08 am cast ant op | Apr-2 2:00 broad PRE on so | DN DES B 25-08 pm dcast | CRIPT C May-1 6:00 broad POST overt 78 | 3-08 pm cast | May- 10:0 broad MPD dired 78 | D 30-08 0 am dcast cted | Jun- 9:00 broa layk over 74 | E 20-08) am adcast Dy rtop | 3 | it: | - |
| Over Clos Appl Time Appl Appl Air % Re | sest Weather lication Da e of Day: lication Me lication Ti lic. Placem Temp., Uni elative Hum | te: thod: ming: ent: t: idity: | Apr-11 6:30 a broadc prepla overtc 68 F 45 | APPLI L-08 am cast ant pp | Apr-2 2:00 broad PRE on so | DN DES B 25-08 pm dcast bil F | CRIPT C May-1 6:00 broad POST overt 78 45 | 3-08 pm cast op F | May- 10:0 broad MPD dire | D 30-08 0 am dcast cted F | Jun- 9:00 broa layh | E 20-08) am adcast py stop F | 3 | it: | - |
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| Over Clos AppJ Time AppJ AppJ AppJ Air % Re Wind Dew | sest Weather lication Da e of Day: lication Me lication Ti lic. Placem Temp., Uni elative Hum | te: thod: ming: ent: t: idity: Unit: Y/N): | Apr-11 6:30 a broadc prepla overtc 68 F 45 0 n | APPLI L-08 am cast ant op | CATIC Apr-2 2:00 broad PRE on so 85 49 5 | DN DES B 25-08 pm dcast bil F | CRIPT C May-1 6:00 broad POST overt 78 45 0 | 3-08 pm cast op F | May- 10:0 broad MPD dired 78 67 3 | D 30-08 0 am dcast cted F | Jun- 9:00 broa layk over 74 66 2 | E 20-08) am adcast py stop F | 3 | it: | - |
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| Over Clos Appl Time Appl Appl Air % Re Wind Dew Wate Soil | lication Da e of Day: lication Me lication Ti lic. Placem Temp., Uni elative Hum d Velocity, Presence () er Hardness | te: thod: ming: ent: t: idity: Unit: Y/N): : it: | A Apr-11 6:30 a broadc prepla overtc 68 F 45 0 m Y | PPLI L-08 am cast ant op F | CATIC Papr-2 2:00 broac PRE on so 85 49 5 N | DN DES B 25-08 pm dcast oil F mph F | CRIPT C May-1 6:00 broad POST overt 78 45 0 N | 3-08 pm .cast op F mph | May- 10:0 broad MPD dired 78 67 3 N | D 30-08 0 am dcast cted F mph | Jun- 9:00 broa layk over 74 66 2 | E 20-08 adcast py rtop F mph | 3 | it: | - |

CROP STAGE AT EACH APPLICATION

| | А | В | С | D | Е |
|---------------------|----------|---------|---------|----------|---------|
| Crop 1 Code, Stage: | GOSHI A | GOSHI B | GOSHI C | GOSHI D | GOSHI E |
| Stage Scale: | preplant | PRE | 2 leaf | 6.5 leaf | 10 leaf |
| Height, Unit: | 0 in | 0 in | 2.5 in | 7 in | 10 in |

WEED STAGE AT EACH APPLICATION С D Е в Α АМАРА С AMAPA E Weed 1 Code, Stage: AMAPA A AMAPA B AMAPA D 0.5 in 2 in 21 in preplant 3.5 in Stage Scale: 0 5 17 20 20 Density, Unit: ydsq ydsq ydsq ydsq ydsq

| APPLICATION EQUIPMENT | | | | | | | | | | |
|-----------------------|-------|------|-------|------|-------|------|-------|-------|-------|------|
| | | А | | В | | С | | D | | Е |
| Appl. Equipment: | back | pack | backp | pack | back | pack | back | pack | back | pack |
| Operating Pressure: | 24 | | 24 | | 24 | | 26 | | 24 | |
| Nozzle Type: | flat | fan | flat | fan | flat | fan | floo | d jet | flat | fan |
| Nozzle Size: | 11002 | 2 | 11002 | 2 | 1100 | 2 | TK 2 | | 1100 | 2 |
| Nozzle Spacing, Unit: | 18 | in | 18 | in | 18 | in | 36 | in | 18 | in |
| Nozzles/Row: | 2 | | 2 | | 2 | | 1 | | 2 | |
| Band Width, Unit: | | | | | | | | | | |
| Boom Length, Unit: | 4.5 | ft | 4.5 | ft | 4.5 | ft | | | 4.5 | ft |
| Boom Height, Unit: | 15 | in | 15 | in | 15 | in | 12 | in | 15 | in |
| Ground Speed, Unit: | 3 | mph | 3 | mph | 3 | mph | 3 | mph | 3 | mph |
| Incorporation Equip.: | | | | | | | | | | |
| Hours to Incorp.: | | | | | | | | | | |
| Incorp. Depth, Unit: | | | | | | | | | | |
| Carrier: | water | | water | | water | | water | | water | |
| Spray Volume, Unit: | 15 | GPA | 14.5 | GPA | 15 | GPA | 15 | GPA | 15 | GPA |
| Spray pH: | | | | | | | | | | |
| Propellant: | CO2 | | CO2 | | CO2 | | CO2 | | CO2 | |
| Tank Mix (Y/N): | У | | у | | У | | У | | У | |

Trt No

Treatment Application Comment
