

Burndown weed control with Reviton in no-till soybean

Trial ID: NTS04-22 Study Dir.: Sprague, Stiles, Powell
 Conducted: Campus, T-18 Investigator:

Planting Date: May-23-2022 **Row Spacing:** 30 IN
Variety: AG24XF1 **No. of Reps:** 4
Population: 150000 seeds/A **% OM:** 2.8
Soil Type: L loam **pH:** 5.7
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: No-tilled into standing corn stalks.
Fertilizer:

Crop and Weed Description

| Weed | Code | Common Name | Scientific Name |
|------|-------|-----------------------|----------------------|
| 1 | STEME | common chickweed | Stellaria media |
| 2 | LAMPU | purple deadnettle | Lamium purpureum |
| 3 | TAROF | dandelion | Taraxacum officinale |
| 4 | ERICA | horseweed (marestail) | Conyza canadensis |
| 5 | POAAN | annual bluegrass | Poa annua |
| Crop | Code | Common Name | |
| 1 | GLXMA | Soybean | |

Application Description

Application Timing: A 14 EPP
Date Treated: May-10-2022
Time Treated: 11:40 AM
% Cloud Cover: 95
Air Temp., Unit: 71 F
% Relative Humidity: 45
Wind Speed/Unit/Dir: 6 MPH S
Soil Temp, Unit: 66 F
Leaf Moist/Dew Presence (Y/N): N
Soil Moist: 5

Crop Stage at Each Application

A
Crop 1 Name: GLXMA
Height:
Stage:

Weed Stage at Each Application

A
Weed 1 Name: STEME
Height: 8-10 " (9)
Stage: flower
Weed 2 Name: LAMPU
Height: 4-7 " (5)
Stage: flower
Weed 3 Name: TAROF
Height: 3-7 " (5)
Stage: flower
Weed 4 Name: ERICA
Height: 1-10 " (3)
Stage: 4L-24L (14L)
Weed 5 Name: POAAN
Height: 2 "
Stage: flower

Weed Density

| | 1 | 2 | 3 | 4 | 5 |
|-------------------|-------------|-------------|-------------|-------------|-------------|
| Date: | May-10-2022 | May-10-2022 | May-10-2022 | May-10-2022 | May-10-2022 |
| Weed Name: | STEME | LAMPU | TAROF | ERICA | POAAN |
| Density: | 3 FT2 | 2 FT2 | 1 FT2 | 4 FT2 | 2 FT2 |

Application Equipment

| Appl | Sprayer Type | Ground Speed | Nozzle Type | Nozzle Size | Nozzle Height | Nozzle Spacing | Boom Width | Spray Volume | Carrier | Operation Pressure |
|------|--------------|--------------|-------------|-------------|---------------|----------------|------------|--------------|---------|--------------------|
| A | CUB | 3.8 MPH | AIXR | 11003 | 20.0 " | 20 " | 100 " | 19 GAL/AC | WATER | 30 PSI |

Comments: Horseweed is resistant to glyphosate (Group 9) and ALS-inhibiting herbicides (Group 2).

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 Project ID: Project ID 2: Project ID 3:
 Study Director: Sprague, Stiles, Powell Sponsor Contact:
 Investigator (Creator): Christy Sprague

| Pest Code | POAAN | STEME | ERICA | LAMPU | TAROF | POAAN |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Rating Date | May-17-2022 | May-17-2022 | May-17-2022 | May-17-2022 | May-17-2022 | May-24-2022 |
| Rating Type | control | control | control | control | control | control |
| Rating Unit/Min/Max | %, 0, 100 | %, 0, 100 | %, 0, 100 | %, 0, 100 | %, 0, 100 | %, 0, 100 |
| Trt-Eval Interval | 7 DA-A | 7 DA-A | 7 DA-A | 7 DA-A | 7 DA-A | 14 DA-A |
| Number of Decimals | 0 | 0 | 0 | 0 | 0 | 0 |

| Trt No. | Treatment Name | Rate | Unit | Appl Timing | Appl Code | POAAN | STEME | ERICA | LAMPU | TAROF | POAAN |
|---------|--------------------|----------------|------|-------------|-----------|-------|-------|-------|-------|-------|-------|
| 1 | Untreated | | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | Reviton | 2 fl oz/a | | 14 EPP | A | 83 | 70 | 3 | 90 | 93 | 93 |
| | Destiny HC | 1 % v/v | | 14 EPP | A | | | | | | |
| 3 | Reviton | 1 fl oz/a | | 14 EPP | A | 98 | 99 | 23 | 90 | 100 | 100 |
| | Roundup PowerMax 3 | 20 fl oz/a | | 14 EPP | A | | | | | | |
| | Destiny HC | 1 % v/v | | 14 EPP | A | | | | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP | A | | | | | | |
| 4 | Roundup PowerMax 3 | 20 fl oz/a | | 14 EPP | A | 91 | 85 | 0 | 50 | 63 | 100 |
| | AMS | 8.5 lb/100 gal | | 14 EPP | A | | | | | | |
| 5 | Reviton | 1 fl oz/a | | 14 EPP | A | 96 | 88 | 96 | 93 | 99 | 91 |
| | Liberty | 32 fl oz/a | | 14 EPP | A | | | | | | |
| | Destiny HC | 1 % v/v | | 14 EPP | A | | | | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP | A | | | | | | |
| 6 | Rancor | 1 pt/a | | 14 EPP | A | 97 | 99 | 55 | 100 | 100 | 100 |
| | Reviton | 2 fl oz/a | | 14 EPP | A | | | | | | |
| | Roundup PowerMax 3 | 20 fl oz/a | | 14 EPP | A | | | | | | |
| | Destiny HC | 1 % v/v | | 14 EPP | A | | | | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP | A | | | | | | |
| 7 | Reviton | 2 fl oz/a | | 14 EPP | A | 99 | 79 | 18 | 90 | 100 | 98 |
| | Arrow | 6 fl oz/a | | 14 EPP | A | | | | | | |
| | Destiny HC | 1 % v/v | | 14 EPP | A | | | | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP | A | | | | | | |
| 8 | Reviton | 1 fl oz/a | | 14 EPP | A | 33 | 81 | 79 | 89 | 98 | 3 |
| | 2,4-D ester | 1 pt/a | | 14 EPP | A | | | | | | |
| | Destiny HC | 1 % v/v | | 14 EPP | A | | | | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP | A | | | | | | |
| 9 | Reviton | 1 fl oz/a | | 14 EPP | A | 98 | 92 | 77 | 88 | 96 | 100 |
| | 2,4-D ester | 1 pt/a | | 14 EPP | A | | | | | | |
| | Roundup PowerMax 3 | 20 fl oz/a | | 14 EPP | A | | | | | | |
| | Destiny HC | 1 % v/v | | 14 EPP | A | | | | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP | A | | | | | | |
| 10 | Helmet MTZ | 2.1 pt/a | | 14 EPP | A | 96 | 96 | 8 | 94 | 100 | 100 |
| | Reviton | 1 fl oz/a | | 14 EPP | A | | | | | | |
| | Roundup PowerMax 3 | 20 fl oz/a | | 14 EPP | A | | | | | | |
| | Destiny HC | 1 % v/v | | 14 EPP | A | | | | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP | A | | | | | | |
| | LSD P=.05 | | | | | 8.5 | 10.6 | 11.5 | 9.8 | 6.5 | 6.4 |
| | Standard Deviation | | | | | 5.9 | 7.3 | 7.9 | 6.7 | 4.5 | 4.4 |
| | CV | | | | | 7.43 | 9.25 | 22.11 | 8.63 | 5.25 | 5.64 |

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 Project ID: Project ID 2: Project ID 3:
 Study Director: Sprague, Stiles, Powell Sponsor Contact:
 Investigator (Creator): Christy Sprague

| Pest Code | STEME | ERICA | LAMPU | TAROF | POAAN | STEME |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Rating Date | May-24-2022 | May-24-2022 | May-24-2022 | May-24-2022 | May-31-2022 | May-31-2022 |
| Rating Type | control | control | control | control | control | control |
| Rating Unit/Min/Max | %, 0, 100 | %, 0, 100 | %, 0, 100 | %, 0, 100 | %, 0, 100 | %, 0, 100 |
| Trt-Eval Interval | 14 DA-A | 14 DA-A | 14 DA-A | 14 DA-A | 21 DA-A | 21 DA-A |
| Number of Decimals | 0 | 0 | 0 | 0 | 0 | 0 |

| Trt No. | Treatment Name | Rate | Unit | Appl Timing | Appl Code | STEME | ERICA | LAMPU | TAROF | POAAN | STEME |
|---------|--------------------|----------------|------|-------------|-----------|-------|-------|-------|-------|-------|-------|
| 1 | Untreated | | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | Reviton | 2 fl oz/a | | 14 EPP | A | 46 | 21 | 95 | 95 | 91 | 15 |
| | Destiny HC | 1 % v/v | | 14 EPP | A | | | | | | |
| 3 | Reviton | 1 fl oz/a | | 14 EPP | A | 99 | 23 | 98 | 100 | 100 | 99 |
| | Roundup PowerMax 3 | 20 fl oz/a | | 14 EPP | A | | | | | | |
| | Destiny HC | 1 % v/v | | 14 EPP | A | | | | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP | A | | | | | | |
| 4 | Roundup PowerMax 3 | 20 fl oz/a | | 14 EPP | A | 94 | 0 | 61 | 91 | 100 | 100 |
| | AMS | 8.5 lb/100 gal | | 14 EPP | A | | | | | | |
| 5 | Reviton | 1 fl oz/a | | 14 EPP | A | 79 | 81 | 94 | 100 | 83 | 65 |
| | Liberty | 32 fl oz/a | | 14 EPP | A | | | | | | |
| | Destiny HC | 1 % v/v | | 14 EPP | A | | | | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP | A | | | | | | |
| 6 | Rancor | 1 pt/a | | 14 EPP | A | 100 | 70 | 100 | 100 | 100 | 100 |
| | Reviton | 2 fl oz/a | | 14 EPP | A | | | | | | |
| | Roundup PowerMax 3 | 20 fl oz/a | | 14 EPP | A | | | | | | |
| | Destiny HC | 1 % v/v | | 14 EPP | A | | | | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP | A | | | | | | |
| 7 | Reviton | 2 fl oz/a | | 14 EPP | A | 53 | 28 | 95 | 80 | 90 | 20 |
| | Arrow | 6 fl oz/a | | 14 EPP | A | | | | | | |
| | Destiny HC | 1 % v/v | | 14 EPP | A | | | | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP | A | | | | | | |
| 8 | Reviton | 1 fl oz/a | | 14 EPP | A | 80 | 91 | 93 | 100 | 0 | 61 |
| | 2,4-D ester | 1 pt/a | | 14 EPP | A | | | | | | |
| | Destiny HC | 1 % v/v | | 14 EPP | A | | | | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP | A | | | | | | |
| 9 | Reviton | 1 fl oz/a | | 14 EPP | A | 99 | 83 | 94 | 100 | 100 | 100 |
| | 2,4-D ester | 1 pt/a | | 14 EPP | A | | | | | | |
| | Roundup PowerMax 3 | 20 fl oz/a | | 14 EPP | A | | | | | | |
| | Destiny HC | 1 % v/v | | 14 EPP | A | | | | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP | A | | | | | | |
| 10 | Helmet MTZ | 2.1 pt/a | | 14 EPP | A | 99 | 19 | 98 | 100 | 100 | 100 |
| | Reviton | 1 fl oz/a | | 14 EPP | A | | | | | | |
| | Roundup PowerMax 3 | 20 fl oz/a | | 14 EPP | A | | | | | | |
| | Destiny HC | 1 % v/v | | 14 EPP | A | | | | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP | A | | | | | | |
| | LSD P=.05 | | | | | 12.0 | 13.6 | 8.6 | 7.8 | 5.5 | 10.4 |
| | Standard Deviation | | | | | 8.3 | 9.4 | 5.9 | 5.3 | 3.8 | 7.1 |
| | CV | | | | | 11.08 | 22.56 | 7.16 | 6.17 | 4.99 | 10.82 |

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 Project ID: Project ID 2: Project ID 3:
 Study Director: Sprague, Stiles, Powell Sponsor Contact:
 Investigator (Creator): Christy Sprague

| Pest Code | ERICA | TAROF |
|---------------------|-------------|-------------|
| Rating Date | May-31-2022 | May-31-2022 |
| Rating Type | control | control |
| Rating Unit/Min/Max | %, 0, 100 | %, 0, 100 |
| Trt-Eval Interval | 21 DA-A | 21 DA-A |
| Number of Decimals | 0 | 0 |

| Trt No. | Treatment Name | Rate | Unit | Appl Timing | Appl Code | | |
|---------|--------------------|----------------|------|-------------|-----------|-------|-----|
| 1 | Untreated | | | | | 0 | 0 |
| 2 | Reviton | 2 fl oz/a | | 14 EPP A | | 13 | 64 |
| | Destiny HC | 1 % v/v | | 14 EPP A | | | |
| 3 | Reviton | 1 fl oz/a | | 14 EPP A | | 20 | 100 |
| | Roundup PowerMax 3 | 20 fl oz/a | | 14 EPP A | | | |
| | Destiny HC | 1 % v/v | | 14 EPP A | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP A | | | |
| 4 | Roundup PowerMax 3 | 20 fl oz/a | | 14 EPP A | | 18 | 99 |
| | AMS | 8.5 lb/100 gal | | 14 EPP A | | | |
| 5 | Reviton | 1 fl oz/a | | 14 EPP A | | 66 | 90 |
| | Liberty | 32 fl oz/a | | 14 EPP A | | | |
| | Destiny HC | 1 % v/v | | 14 EPP A | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP A | | | |
| 6 | Rancor | 1 pt/a | | 14 EPP A | | 71 | 96 |
| | Reviton | 2 fl oz/a | | 14 EPP A | | | |
| | Roundup PowerMax 3 | 20 fl oz/a | | 14 EPP A | | | |
| | Destiny HC | 1 % v/v | | 14 EPP A | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP A | | | |
| 7 | Reviton | 2 fl oz/a | | 14 EPP A | | 18 | 60 |
| | Arrow | 6 fl oz/a | | 14 EPP A | | | |
| | Destiny HC | 1 % v/v | | 14 EPP A | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP A | | | |
| 8 | Reviton | 1 fl oz/a | | 14 EPP A | | 76 | 98 |
| | 2,4-D ester | 1 pt/a | | 14 EPP A | | | |
| | Destiny HC | 1 % v/v | | 14 EPP A | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP A | | | |
| 9 | Reviton | 1 fl oz/a | | 14 EPP A | | 70 | 99 |
| | 2,4-D ester | 1 pt/a | | 14 EPP A | | | |
| | Roundup PowerMax 3 | 20 fl oz/a | | 14 EPP A | | | |
| | Destiny HC | 1 % v/v | | 14 EPP A | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP A | | | |
| 10 | Helmet MTZ | 2.1 pt/a | | 14 EPP A | | 16 | 96 |
| | Reviton | 1 fl oz/a | | 14 EPP A | | | |
| | Roundup PowerMax 3 | 20 fl oz/a | | 14 EPP A | | | |
| | Destiny HC | 1 % v/v | | 14 EPP A | | | |
| | AMS | 8.5 lb/100 gal | | 14 EPP A | | | |
| | LSD P=.05 | | | | | 9.9 | 9.2 |
| | Standard Deviation | | | | | 6.8 | 6.3 |
| | CV | | | | | 18.53 | 7.9 |