

**Ethotron tankmixtures with Stinger in sugarbeet**

Trial ID: SB01-16 Study Dir.: Sprague, Powell, Stiles  
 Conducted: SVREC Investigator: Christy Sprague

**Planting Date:** Apr-16-2016 **Row Spacing:** 30 IN  
**Variety:** Hilleshog 9616RR **No. of Reps:** 4  
**Population:** 4.37 spacing **% OM:** 2.5  
**Soil Type:** SCL sandy clay loam **pH:** 7.8  
**Plot Size:** 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

**Tillage/Previous Crops:** Previous crop: wheat Fall moldboard plow; spring soil finished with fertilizer; planted stale seedbed  
**Fertilizer:** 217 lb/A Urea-broadcast and incorporated (100 lb of actual N/A)

**Crop and Weed Description**

| Weed | Code  | Common Name          | Scientific Name         |
|------|-------|----------------------|-------------------------|
| 1    | CHEAL | lambquarters, common | Chenopodium album       |
| 2    | AMBEL | ragweed, common      | Ambrosia artemisiifolia |
| Crop | Code  | Common Name          |                         |
| 1    | BEAVA | Sugarbeet            |                         |

**Application Description**

**A**  
**Application Timing:** POST  
**Date Treated:** May-26-2016  
**Time Treated:** 11:30 AM  
**% Cloud Cover:** 70  
**Air Temp., Unit:** 81 F  
**% Relative Humidity:** 60  
**Wind Speed/Unit/Dir:** 9 mph SSW  
**Soil Temp, Unit:** 74 F  
**Leaf Moist/Dew Presence (Y/N):** 5  
**Soil Moist:** 3

**Crop Stage at Each Application**

**A**  
**Crop 1 Name:** BEAVA  
**Height:** 1- " (2)  
**Stage:** 6L

**Weed Stage at Each Application**

**A**  
**Weed 1 Name:** CHEAL  
**Height:** .5-4 " (2)  
**Stage:** 4-8L  
**Weed 2 Name:** AMBEL  
**Height:** 1-3 " (2)  
**Stage:** 4-8L

**Weed Density**

|                   | 1           | 2           |
|-------------------|-------------|-------------|
| <b>Date:</b>      | May-26-2016 | May-26-2016 |
| <b>Weed Name:</b> | CHEAL       | AMBEL       |
| <b>Density:</b>   | 8 FT2       | 4 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       | 22 "          | 20 "           | 100 "      | 19 GAL/AC    | WATER   | 30 PSI             |

**Comments:**

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|                    |  |            |            |            |            |            |             |             |
|--------------------|--|------------|------------|------------|------------|------------|-------------|-------------|
| Pest Code          |  | CHEAL      |            | CHEAL      |            | AMBEL      |             | CHEAL       |
| Crop Code          |  | BEAVU      |            | BEAVU      |            |            |             | BEAVU       |
| Rating Date        |  | Jun-3-2016 | Jun-3-2016 | Jun-9-2016 | Jun-9-2016 | Jun-9-2016 | Jun-22-2016 | Jun-22-2016 |
| Rating Type        |  | injury     | control    | injury     | control    | control    | injury      | control     |
| Rating Unit        |  | percent    | percent    | percent    | percent    | percent    | percent     | percent     |
| Trt-Eval Interval  |  | 8 DA-A     | 8 DA-A     | 14 DA-A    | 14 DA-A    | 14 DA-A    | 27 DA-A     | 27 DA-A     |
| Number of Decimals |  | 0          | 0          | 0          | 0          | 0          | 0           | 0           |

| Trt No. | Treatment Name  | Rate  | Unit                  | Appl Code |     |      |       |      |      |     |      |
|---------|---|---|-----------------------|-----------|-----|------|-------|------|------|-----|------|
| 1       | Roundup PowerMax<br>1 AMS   | 22 fl oz/a<br>17 lb/100 gal                                       | A<br>A                |           | 0   | 85   | 0     | 90   | 90   | 0   | 74   |
| 2       | Stinger   | 0.5 pt/a  | A                     |           | 15  | 0    | 5     | 0    | 90   | 0   | 24   |
| 3       | Stinger<br>3 Roundup PowerMax<br>3 AMS                                | 0.5 pt/a<br>22 fl oz/a<br>17 lb/100 gal                           | A<br>A<br>A           |           | 30  | 78   | 20    | 86   | 90   | 0   | 80   |
| 4       | Ethotron<br>4 Roundup PowerMax<br>4 AMS                               | 0.75 pt/a<br>22 fl oz/a<br>17 lb/100 gal                          | A<br>A<br>A           |           | 0   | 83   | 0     | 93   | 84   | 0   | 77   |
| 5       | Ethotron<br>5 Stinger<br>5 Roundup PowerMax<br>5 AMS                  | 0.75 pt/a<br>0.5 pt/a<br>22 fl oz/a<br>17 lb/100 gal              | A<br>A<br>A<br>A      |           | 30  | 83   | 25    | 93   | 88   | 0   | 82   |
| 6       | Untreated   |   |                       |           | 0   | 0    | 0     | 0    | 0    | 0   | 0    |
| 7       | Ethotron  | 0.75 pt/a   | A                     |           | 0   | 0    | 0     | 0    | 0    | 0   | 43   |
| 8       | Ethotron<br>8 Stinger<br>8 Dual Magnum<br>8 Roundup PowerMax<br>8 AMS | 0.75 pt/a<br>0.5 pt/a<br>1.33 pt/a<br>22 fl oz/a<br>17 lb/100 gal | A<br>A<br>A<br>A<br>A |           | 30  | 95   | 22    | 100  | 90   | 0   | 88   |
|         | LSD P=.05   |   |                       |           | .   | 5.6  | 7.3   | 5.1  | 6.6  | .   | 6.8  |
|         | Standard Deviation  |   |                       |           | 0.0 | 3.8  | 5.0   | 3.5  | 4.4  | 0.0 | 4.6  |
|         | CV  |   |                       |           | 0.0 | 7.24 | 55.48 | 6.03 | 6.69 | 0.0 | 7.83 |

Missing data estimates are included in columns: Average=1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18  
 Could not calculate LSD (% mean diff) for columns 1,6,8,11 because error mean square = 0.

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|                    |             |             |             |             |             |             |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Pest Code          |             | CHEAL       | AMBEL       |             | CHEAL       | AMBEL       |
| Crop Code          | BEAVU       |             |             | BEAVU       |             |             |
| Rating Date        | Jun-30-2016 | Jun-30-2016 | Jun-30-2016 | Jul-18-2016 | Jul-18-2016 | Jul-18-2016 |
| Rating Type        | injury      | control     | control     | injury      | control     | control     |
| Rating Unit        | percent     | percent     | percent     | percent     | percent     | percent     |
| Trt-Eval Interval  | 35 DA-A     | 35 DA-A     | 35 DA-A     | 53 DA-A     | 53 DA-A     | 53 DA-A     |
| Number of Decimals | 0           | 0           | 0           | 0           | 0           | 0           |

| Trt No.            | Treatment Name   | Rate          | Unit | Appl Code |     |      |      |     |      |      |
|--------------------|------------------|---------------|------|-----------|-----|------|------|-----|------|------|
| 1                  | Roundup PowerMax | 22 fl oz/a    |      | A         | 0   | 80   | 99   | 0   | 90   | 82   |
| 1                  | AMS              | 17 lb/100 gal |      | A         |     |      |      |     |      |      |
| 2                  | Stinger          | 0.5 pt/a      |      | A         | 0   | 30   | 100  | 0   | 18   | 87   |
| 3                  | Stinger          | 0.5 pt/a      |      | A         | 0   | 79   | 100  | 0   | 96   | 90   |
| 3                  | Roundup PowerMax | 22 fl oz/a    |      | A         |     |      |      |     |      |      |
| 3                  | AMS              | 17 lb/100 gal |      | A         |     |      |      |     |      |      |
| 4                  | Ethotron         | 0.75 pt/a     |      | A         | 0   | 87   | 97   | 0   | 99   | 82   |
| 4                  | Roundup PowerMax | 22 fl oz/a    |      | A         |     |      |      |     |      |      |
| 4                  | AMS              | 17 lb/100 gal |      | A         |     |      |      |     |      |      |
| 5                  | Ethotron         | 0.75 pt/a     |      | A         | 0   | 85   | 100  | 0   | 99   | 90   |
| 5                  | Stinger          | 0.5 pt/a      |      | A         |     |      |      |     |      |      |
| 5                  | Roundup PowerMax | 22 fl oz/a    |      | A         |     |      |      |     |      |      |
| 5                  | AMS              | 17 lb/100 gal |      | A         |     |      |      |     |      |      |
| 6                  | Untreated        |               |      |           | 0   | 0    | 0    | 0   | 0    | 0    |
| 7                  | Ethotron         | 0.75 pt/a     |      | A         | 0   | 39   | 20   | 0   | 50   | 47   |
| 8                  | Ethotron         | 0.75 pt/a     |      | A         | 0   | 90   | 100  | 0   | 100  | 90   |
| 8                  | Stinger          | 0.5 pt/a      |      | A         |     |      |      |     |      |      |
| 8                  | Dual Magnum      | 1.33 pt/a     |      | A         |     |      |      |     |      |      |
| 8                  | Roundup PowerMax | 22 fl oz/a    |      | A         |     |      |      |     |      |      |
| 8                  | AMS              | 17 lb/100 gal |      | A         |     |      |      |     |      |      |
| LSD P=.05          |                  |               |      |           | .   | 8.0  | 1.5  | .   | 5.4  | 6.7  |
| Standard Deviation |                  |               |      |           | 0.0 | 5.4  | 1.0  | 0.0 | 3.7  | 4.5  |
| CV                 |                  |               |      |           | 0.0 | 8.79 | 1.32 | 0.0 | 5.31 | 6.37 |

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|                    |             |             |             |             |             |
|--------------------|-------------|-------------|-------------|-------------|-------------|
| Pest Code          |             |             |             |             |             |
| Crop Code          |             |             |             |             |             |
| Rating Date        | BEAVU       | BEAVU       | BEAVU       | BEAVU       | BEAVU       |
| Rating Type        | Sep-20-2016 | Sep-20-2016 | Sep-20-2016 | Sep-20-2016 | Sep-20-2016 |
| Rating Unit        | stand count | % sugar     | yield       | RWST        | RWSA        |
| Trt-Eval Interval  | 100' row    |             | ton/acre    | #/ton       | #/acre      |
| Number of Decimals | 117 DA-A    | 117 DA-A    | 117 DA-A    | 117 DA-A    | 117 DA-A    |
|                    | 0           | 1           | 1           | 0           | 0           |

| Trt No. | Treatment Name     | Rate          | Unit | Appl Code |      |      |       |      |       |
|---------|--------------------|---------------|------|-----------|------|------|-------|------|-------|
| 1       | Roundup PowerMax   | 22 fl oz/a    |      | A         | 240  | 16.4 | 27.2  | 247  | 6700  |
| 1       | AMS                | 17 lb/100 gal |      | A         |      |      |       |      |       |
| 2       | Stinger            | 0.5 pt/a      |      | A         | 240  | 17.3 | 8.7   | 265  | 2262  |
| 3       | Stinger            | 0.5 pt/a      |      | A         | 270  | 15.6 | 27.9  | 234  | 6502  |
| 3       | Roundup PowerMax   | 22 fl oz/a    |      | A         |      |      |       |      |       |
| 3       | AMS                | 17 lb/100 gal |      | A         |      |      |       |      |       |
| 4       | Ethotron           | 0.75 pt/a     |      | A         | 262  | 16.0 | 28.0  | 242  | 6793  |
| 4       | Roundup PowerMax   | 22 fl oz/a    |      | A         |      |      |       |      |       |
| 4       | AMS                | 17 lb/100 gal |      | A         |      |      |       |      |       |
| 5       | Ethotron           | 0.75 pt/a     |      | A         | 241  | 15.8 | 22.3  | 238  | 5272  |
| 5       | Stinger            | 0.5 pt/a      |      | A         |      |      |       |      |       |
| 5       | Roundup PowerMax   | 22 fl oz/a    |      | A         |      |      |       |      |       |
| 5       | AMS                | 17 lb/100 gal |      | A         |      |      |       |      |       |
| 6       | Untreated          |               |      |           | 207  | 17.4 | 2.0   | 264  | 527   |
| 7       | Ethotron           | 0.75 pt/a     |      | A         | 251  | 16.3 | 12.7  | 247  | 3144  |
| 8       | Ethotron           | 0.75 pt/a     |      | A         | 249  | 15.9 | 29.5  | 237  | 6950  |
| 8       | Stinger            | 0.5 pt/a      |      | A         |      |      |       |      |       |
| 8       | Dual Magnum        | 1.33 pt/a     |      | A         |      |      |       |      |       |
| 8       | Roundup PowerMax   | 22 fl oz/a    |      | A         |      |      |       |      |       |
| 8       | AMS                | 17 lb/100 gal |      | A         |      |      |       |      |       |
|         | LSD P=.05          |               |      |           | 28.2 | 1.24 | 4.57  | 21.0 | 920.8 |
|         | Standard Deviation |               |      |           | 19.2 | 0.84 | 3.08  | 14.1 | 619.8 |
|         | CV                 |               |      |           | 7.82 | 5.12 | 15.55 | 5.72 | 13.0  |