

2004 Soybean Herbicide Evaluation (Rochester, Lamberton, and Waseca Results)

Hoverstad, Thomas R., Fritz R. Breitenbach, Jodie K. Getting, and Jeff L. Gunsolus

| Herbicide | Rate (product / A) | Giant foxtail | Yellow foxtail | Wild proso millet | Common lambquarters | Redroot pigweed | Common ragweed | Giant ragweed | Velvetleaf | Tall waterhemp | Yield | Cost | Returns | |
|--|---|---|-------------------|----------------------|------------------------|--------------------|-------------------|------------------|------------|-------------------|-------|--------|----------------|-----|
| | | Number of locations | | | | | | | | | | (bu/A) | ----(\$/A)---- | |
| | | 4 | 1 | 1 | 5 | 3 | 2 | 2 | 2 | 1 | 6 | | | |
| <u>Preemergence</u> | | | | | | | | | | | | | | |
| 1 | Pendimax + Gangster <u>Preplant incorporate 2X/POST I (4-inch weeds)</u> | 3 pt + 3.6 oz | 83 | 78 | 79 | 98 | 98 | 96 | 95 | 99 | 73 | 46.4 | 32.30 | 187 |
| 2 | Prowl H2O / Raptor + UltraBlazer + NIS + AMS | 43 oz / 4 oz + 8 oz + 0.25% + 2.5 lb | 83 | 93 | 93 | 99 | 86 | 30 | 54 | 99 | 99 | 24.2 | 44.52 | 104 |
| 3 | Pusuit Plus / Result B + Result G + NIS + AMS | 2.5 pt / 1.6 pt + 1.6 + 0.25% + 2.5 lb | 99 | 97 | 98 | 98 | 96 | 24 | 59 | 99 | 61 | 30.2 | 38.11 | 134 |
| 4 | Prowl H2O / Extreme + NIS + AMS | 43 oz / 3 pt + 0.125% + 2.5 lb | 99 | 97 | 99 | 98 | 98 | 92 | 97 | 99 | 99 | 46.2 | 32.91 | 192 |
| <u>Preemergence/POST I (4-inch weeds)</u> | | | | | | | | | | | | | | |
| 5 | Valor SX / FirstRate + Phoenix + V10137 + AMS | 3 oz / 0.6 oz + 10 oz + 16 oz + 2 lb | 97 | 93 | 99 | 99 | 100 | 99 | 91 | 99 | 99 | 45.9 | - | |
| 6 | Pemdimax / FirstRate + Select + Cobra + COC + AMS | 3 pt / 0.3 oz + 8 oz + 6 oz + 1% + 2.5 lb | 98 | 94 | 96 | 93 | 78 | 94 | 82 | 99 | 99 | 43.4 | 45.76 | 161 |
| 7 | Boundary / Flexstar + Fusion + COC + AMS | 1.5 pt / 16 oz + 8 oz + 1% + 2.5 lb | 95 | 96 | 100 | 99 | 100 | 97 | 86 | 99 | 97 | 44.9 | 48.39 | 174 |
| 8 | Authority / Flexstar + Assure + COC + AMS | 5.3 oz / 16 oz + 9 oz + 1% + 2.5 lb | 97 | 96 | 100 | 99 | 99 | 98 | 79 | 99 | 99 | 42.3 | 42.20 | 173 |
| <u>Preemergence/POST I (6-inch weeds)</u> | | | | | | | | | | | | | | |
| 9 | InRRo / Roundup WeatherMax + AMS | 4 pt / 22 oz + 2.5 lb | 98 | 97 | 100 | 99 | 97 | 97 | 98 | 99 | 99 | 49.0 | 38.98 | 200 |
| 10 | Prowl H2O + Outlook / Roundup WeatherMax | 1 pt + 12.6 oz / 22 oz + 2.5 lb | 98 | 97 | 100 | 99 | 98 | 90 | 98 | 99 | 96 | 50.3 | 47.25 | 193 |
| 11 | Gangster/ Roundup WeatherMax + AMS | 1.8 oz / 22 oz + 2.5 lb | 97 | 95 | 100 | 99 | 99 | 99 | 100 | 99 | 99 | 53.3 | 38.79 | 218 |
| 12 | Boundary / Touchdown Total + AMS | 1.25 pt / 24 oz + 2.5 lb | 99 | 97 | 100 | 99 | 94 | 95 | 98 | 99 | 98 | 53.3 | 41.69 | 212 |

Table continued. 2004 Soybean Herbicide Evaluation (Rochester, Lamberton, and Waseca Results)

| | | Giant foxtail | Yellow foxtail | Wild proso millet | Common lambsquarters | Redroot pigweed | Common ragweed | Giant ragweed | Velvetleaf | Tall waterhemp | Yield | Cost | Returns |
|--|---------------------------------------|------------------|-------------------|----------------------|-------------------------|--------------------|-------------------|------------------|------------|-------------------|-------|-------|---------|
| Herbicide | Rate (product / A) | 4 | 1 | 1 | 5 | 3 | 2 | 2 | 2 | 1 | 6 | 6 | |
| <u>Preemergence/POST I (6-inch weeds) continued.</u> | | | | | | | | | | | | | |
| 13 Valor SX / Roundup WeatherMax + AMS | 2 oz / 22 oz+2.5 lb | 97 | 97 | 100 | 99 | 97 | 99 | 96 | 99 | 99 | 51.7 | 36.83 | 211 |
| 14 Valor SX + Python / Roundup WeatherMax + AMS | 1.5 oz + 0.5 oz / 22 oz + 2.5 lb | 97 | 98 | 100 | 99 | 100 | 97 | 99 | 99 | 93 | 53.6 | 39.64 | 216 |
| 15 Authority / Roundup WeatherMax + AMS | 4 oz / 22 oz+2.5 lb | 98 | 98 | 100 | 99 | 100 | 91 | 96 | 99 | 99 | 49.9 | 35.52 | 205 |
| <u>POST I (4-inch weeds)</u> | | | | | | | | | | | | | |
| 16 Flexstar + Fusion + HarmonyGT + COC + AMS | 16 oz + 10 oz + 0.04 oz + 1% + 2.5 lb | 85 | 95 | 100 | 92 | 89 | 88 | 68 | 99 | 85 | 34.5 | 31.29 | 155 |
| 17 Flexstar + Fusion + FirstRate + COC + AMS | 16 oz + 10 oz + 0.3 oz + 1% + 2.5 lb | 87 | 94 | 97 | 65 | 79 | 88 | 94 | 99 | 67 | 38.6 | 38.79 | 163 |
| <u>POST I (4-inch weeds)/POST III (Canopy)</u> | | | | | | | | | | | | | |
| 18 Roundup WeatherMax + AMS/ Roundup Weather Max+AMS | 22 oz + 2.5 lb / 22 oz + 2.5 lb | 99 | 97 | 100 | 97 | 94 | 99 | 100 | 99 | 99 | 47.9 | 39.98 | 196 |
| <u>POST II (6-inch weeds)</u> | | | | | | | | | | | | | |
| 19 GF 1279 + FirstRate + AMS | 24 oz + 0.3 oz + 2.5 lb | 99 | 98 | 100 | 95 | 97 | 97 | 96 | 99 | 99 | 46.9 | - | |
| 20 Clearout 41Plus + AMS | 32 oz + 2.5 lb | 99 | 97 | 100 | 96 | 92 | 94 | 95 | 99 | 96 | 46.3 | 18.16 | 213 |
| 21 GF 1279 + AMS | 24 oz + 2.5 lb | 99 | 97 | 100 | 95 | 78 | 93 | 96 | 99 | 99 | 46.9 | - | |
| 22 Roundup WeatherMax + AMS | 22 oz + 2.5 lb | 99 | 97 | 100 | 98 | 83 | 95 | 95 | 99 | 99 | 46.0 | 23.99 | 205 |
| <u>Checks</u> | | | | | | | | | | | | | |
| 23 Weedy | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8.3 | 0.00 | 40 |
| 24 Hand-Weeded | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 52.0 | 0.00 | 249 |
| | LSD(0.10) | 3 | 3 | 4 | 4 | 12 | 8 | 9 | 12 | 12 | 3.0 | | 11 |

Soybean Price = \$4.91
(Waseca Co. 2004 Loan Rate)

2004 Soybean Herbicide Evaluation (Rochester)

| Herbicide | Rate (pt/A) | Wild Millet | Common Lambs. | Velvetleaf | Giant ragweed | Yield (bu/A) | Cost ---- | Income Over Herb (\$/A) ----- |
|--|---|----------------|------------------|------------|------------------|-----------------|--------------|-------------------------------------|
| <u>Preemergence</u> | | | | | | | | |
| 1 Pendimax + Gangster | 3 +3.6 oz | 79 | 98 | 100 | 95 | 33.4 | 32.30 | 132 |
| <u>Preplant incorporate 2X/POST I (4-inch weeds)</u> | | | | | | | | |
| 2 Prowl H2O / Raptor + UltraBlazer + NIS + AMS | 43 oz / 4 oz + 8 oz + 0.25% + 2.5 lb | 93 | 96 | 100 | 88 | 29.1 | 44.52 | 98 |
| 3 Pusuit Plus / Rezult B + Rezult G + NIS + AMS | 2.5 / 1.6 + 1.6 + 0.25% + 2.5 lb | 98 | 97 | 100 | 91 | 36.0 | 38.11 | 139 |
| 4 Prowl H2O / Extreme + NIS + AMS | 43oz / 3 pt + 0.125% + 2.5 lb | 99 | 99 | 100 | 99 | 35.8 | 32.91 | 143 |
| <u>Preemergence/ POST I (4-inch weeds)</u> | | | | | | | | |
| 5 Valor SX / FirstRate + Phoenix + V10137 + AMS | 3 oz / 0.6 oz + 10 oz + 16 oz + 2 lb | 99 | 98 | 100 | 96 | 34.8 | - | - |
| 6 Pemdimax / FirstRate + Select + Cobra + COC + AMS | 3 / 0.3 oz + 8 oz + 6 oz + 1% + 2.5 lb | 96 | 87 | 100 | 90 | 26.5 | 45.76 | 85 |
| 7 Boundary / Flexstar + Fusion + COC + AMS | 1.5 pt / 16 oz + 8 oz + 1% + 2.5 lb | 100 | 99 | 100 | 92 | 37.5 | 48.39 | 136 |
| 8 Authority / Flexstar + Assure + COC + AMS | 5.3 oz / 16 oz + 9 oz + 1% + 2.5 lb | 100 | 100 | 100 | 96 | 38.4 | 42.20 | 146 |
| <u>Preemergence/ POST I (6-inch weeds)</u> | | | | | | | | |
| 9 InRRo / Roundup WeatherMax + AMS | 4 / 22 oz + 2.5 lb | 100 | 99 | 100 | 100 | 39.4 | 38.98 | 154 |
| 10 Prowl H2O + Outlook / Roundup WeatherMax | 1 + 12.6 oz / 22 oz + 2.5 lb | 100 | 100 | 100 | 100 | 37.6 | 47.25 | 137 |
| 11 Gangster / Roundup WeatherMax + AMS | 1.8 oz / 22 oz + 2.5 lb | 100 | 100 | 100 | 100 | 44.2 | 38.79 | 178 |
| 12 Boundary / Touchdown Total + AMS | 1.25 pt / 24 oz + 2.5 lb | 100 | 99 | 100 | 97 | 40.6 | 41.69 | 157 |
| 13 Valor SX / Roundup WeatherMax + AMS | 2 oz / 22 oz + 2.5 lb | 100 | 100 | 100 | 100 | 39.1 | 36.83 | 155 |
| 14 Valor SX + Python / Roundup WeatherMax + AMS | 1.5 oz + 0.5 oz / 22 oz + 2.5 lb | 100 | 100 | 100 | 99 | 41.1 | 39.64 | 162 |
| 15 Authority / Roundup WeatherMax + AMS | 4 oz / 22 oz + 2.5 lb | 100 | 100 | 100 | 97 | 38.8 | 35.52 | 155 |

Table continued. 2004 Soybean Herbicide Evaluation (Rochester)

| Herbicide | Rate (pt/A) | Wild | Proso | Common | Velvetleaf | Giant | Yield (bu/A) | Cost | Income Over Herb (\$/A) |
|---|--|--------|--------|-------------|------------|-------|-----------------|------|-------------------------------|
| | | Millet | Lambs. | (% control) | ragweed | | | | |
| <u>POST I (4-inch weeds)</u> | | | | | | | | | |
| 16 Flexstar + Fusion + HarmonyGT + COC + AMS | 16 oz + 10 oz + 0.04 oz + 1% + 2.5 lb | 100 | 93 | 100 | 93 | 35.3 | 31.29 | 142 | |
| 17 Flexstar + Fusion + FirstRate + COC + AMS | 16 oz + 10 oz + 0.3 oz + 1% + 2.5 lb | 97 | 85 | 100 | 99 | 37.3 | 38.79 | 145 | |
| <u>POST I (4-inch weeds) / POST III(Canopy)</u> | | | | | | | | | |
| 18 Roundup WeatherMax + AMS/ Roundup Weather Max + AMS | 22 oz + 2.5 lb / 22 oz + 2.5 lb | 100 | 100 | 100 | 100 | 42.8 | 39.98 | 170 | |
| <u>POST II (6-inch weeds)</u> | | | | | | | | | |
| 19 GF 1279 + FirstRate + AMS | 24 oz + 0.3 oz + 2.5 lb | 100 | 99 | 100 | 100 | 42.4 | - | - | |
| 20 Clearout 41Plus + AMS | 32 oz + 2.5 lb | 100 | 99 | 100 | 97 | 42.9 | 18.16 | 192 | |
| 21 GF 1279 + AMS | 24 oz + 2.5 lb | 100 | 99 | 100 | 99 | 40.1 | - | - | |
| 22 Roundup WeatherMax + AMS | 22 oz + 2.5 lb | 100 | 100 | 100 | 97 | 41.3 | 23.99 | 179 | |
| <u>Checks</u> | | | | | | | | | |
| 23 Weedy | - | 0 | 0 | 0 | 0 | 12.7 | 0.00 | 62 | |
| 24 Hand-Weeded | - | 100 | 100 | 100 | 100 | 40.9 | 0.00 | 201 | |
| | | | | | | | | | |
| LSD(0.10) 4 3 1 5 5.2 26 | | | | | | | | | |

Soybean Price = \$4.91
(Waseca Co. 2004 Loan Rate)

2004 Soybean Herbicide Evaluation (Lamberton)

| Herbicide | Rate (pt/A) | Yellow foxtail ----- | Common lambsquarters (% control) ----- | Redroot pigweed ----- | Yield (bu/A) | Cost ---- (\$/A) ----- | Income Over Herb ---- |
|--|--|----------------------------|--|-----------------------------|-----------------|---------------------------|-----------------------------|
| <u>Preemergence</u> | | | | | | | |
| 1 Pendimax + Gangster | 3 +3.6 oz | 78 | 100 | 98 | 48.9 | 32.30 | 208 |
| <u>Preplant incorporate 2X/POST I (4-inch weeds)</u> | | | | | | | |
| 2 Prowl H2O / Raptor + UltraBlazer + NIS + AMS | 43 oz / 4 oz+ 8 oz+0.25%+2.5 lb | 93 | 100 | 98 | 55.8 | 44.52 | 230 |
| 3 Pusuit Plus / Result B + Result G + NIS + AMS | 2.5 / 1.6 + 1.6 + 0.25% + 2.5 lb | 97 | 98 | 94 | 53.9 | 38.11 | 227 |
| 4 Prowl H2O / Extreme + NIS + AMS | 43oz / 3 pt+0.125%+2.5 lb | 97 | 100 | 98 | 54.5 | 32.91 | 235 |
| <u>Preemergence/ POST I (4-inch weeds)</u> | | | | | | | |
| 5 Valor SX / FirstRate + Phoenix + V10137 + AMS | 3 oz / 0.6 oz + 10 oz + 16 oz + 2 lb | 93 | 100 | 100 | 54.6 | - | - |
| 6 Pemdimax / FirstRate + Select + Cobra + COC + AMS | 3 / 0.3 oz + 8 oz + 6 oz + 1% + 2.5 lb | 94 | 94 | 99 | 52.6 | 45.76 | 213 |
| 7 Boundary / Flexstar + Fusion + COC + AMS | 1.5 pt / 16 oz + 8 oz + 1% + 2.5 lb | 96 | 100 | 100 | 54.7 | 48.39 | 220 |
| 8 Authority / Flexstar + Assure + COC + AMS | 5.3 oz / 16 oz + 9 oz + 1% + 2.5 lb | 96 | 100 | 100 | 55.3 | 42.20 | 229 |
| <u>Preemergence / POST I (6-inch weeds)</u> | | | | | | | |
| 9 InRRo / Roundup WeatherMax + AMS | 4 / 22 oz + 2.5 lb | 97 | 100 | 99 | 56.0 | 38.98 | 236 |
| 10 Prowl H2O + Outlook / Roundup WeatherMax | 1 + 12.6 oz / 22 oz + 2.5 lb | 97 | 100 | 99 | 54.3 | 47.25 | 219 |
| 11 Gangster/ Roundup WeatherMax + AMS | 1.8 oz / 22 oz+2.5 lb | 95 | 100 | 100 | 56.1 | 38.79 | 237 |
| 12 Boundary / Touchdown Total + AMS | 1.25 pt / 24 oz + 2.5 lb | 97 | 100 | 100 | 55.8 | 41.69 | 232 |
| 13 Valor SX / Roundup WeatherMax + AMS | 2 oz / 22 oz+2.5 lb | 97 | 100 | 100 | 56.4 | 36.83 | 240 |
| 14 Valor SX + Python / Roundup WeatherMax + AMS | 1.5 oz + 0.5 oz / 22 oz + 2.5 lb | 98 | 100 | 100 | 56.3 | 39.64 | 237 |
| 15 Authority / Roundup WeatherMax + AMS | 4 oz / 22 oz+2.5 lb | 98 | 100 | 100 | 55.2 | 35.52 | 235 |

Table continued. 2004 Soybean Herbicide Evaluation (Lamberton)

| Herbicide | Rate (pt/A) | Yellow foxtail ----- (% control) | Common lambsquarters ----- | Redroot pigweed ----- | Yield (bu/A) | Cost | Income Over Herb ----- (\$/A) ----- |
|---|--|---|----------------------------------|-----------------------------|-----------------|-------|--|
| <u>POST I (4-inch weeds)</u> | | | | | | | |
| 16 Flexstar + Fusion + HarmonyGT + COC + AMS | 16 oz + 10 oz + 0.04 oz + 1% + 2.5 lb | 95 | 91 | 96 | 54.2 | 31.29 | 235 |
| 17 Flexstar + Fusion + FirstRate + COC + AMS | 16 oz + 10 oz + 0.3 oz + 1% + 2.5 lb | 94 | 89 | 90 | 55.0 | 38.79 | 231 |
| <u>POST I (4-inch weeds)/POST III(Canopy)</u> | | | | | | | |
| 18 Roundup WeatherMax + AMS/ Roundup Weather Max + AMS | 22 oz + 2.5 lb / 22 oz + 2.5 lb | 97 | 100 | 98 | 54.1 | 39.98 | 226 |
| <u>POST II (6-inch weeds)</u> | | | | | | | |
| 19 GF 1279 + FirstRate + AMS | 24 oz + 0.3 oz + 2.5 lb | 98 | 100 | 100 | 54.7 | - | - |
| 20 Clearout 41Plus + AMS | 32 oz + 2.5 lb | 97 | 99 | 100 | 54.9 | 18.16 | 251 |
| 21 GF 1279 + AMS | 24 oz + 2.5 lb | 97 | 98 | 98 | 55.1 | - | - |
| 22 Roundup WeatherMax + AMS | 22 oz + 2.5 lb | 97 | 100 | 100 | 55.1 | 23.99 | 247 |
| <u>Checks</u> | | | | | | | |
| 23 Weedy | - | 0 | 0 | 0 | 2.9 | 0.00 | 14 |
| 24 Hand-Weeded | - | 100 | 100 | 100 | 55.6 | 0.00 | 273 |
| LSD(0.10) | | | | | | | |
| 3 | | | | | | | |
| 3 | | | | | | | |
| 3 | | | | | | | |
| 1.9 | | | | | | | |
| 9 | | | | | | | |

Soybean Price = \$4.91
(Waseca Co. 2004 Loan Rate)

2004 Soybean Herbicide Evaluation (Waseca)

Giant Ragweed Site

| Herbicide | Rate (pt/A) | Giant foxtail | Giant ragweed | Common lambsquarters | Yield (bu/A) | Cost | Income Over Herb (\$/A) |
|--|--|------------------|-------------------|-------------------------|-----------------|-------|-------------------------------|
| | | ----- | (% control) ----- | ----- | (bu/A) ----- | ----- | ----- |
| <u>Preemergence</u> | | | | | | | |
| 1 Pendimax + Gangster | 3 +3.6 oz | 96 | 96 | 99 | 53.3 | 32.30 | 229 |
| <u>Preplant incorporate 2X/POST I (4-inch weeds)</u> | | | | | | | |
| 2 Prowl H2O / Raptor+UltraBlazer+NIS+AMS | 43 oz / 4 oz+ 8 oz+0.25%+2.5 lb | 96 | 20 | 99 | 11.9 | 44.52 | 14 |
| 3 Pusuit Plus / Result B + Result G + NIS + AMS | 2.5 / 1.6 + 1.6 + 0.25% + 2.5 lb | 99 | 28 | 99 | 20.5 | 38.11 | 62 |
| 4 Prowl H2O / Extreme+NIS+AMS | 43oz / 3 pt+0.125%+2.5 lb | 99 | 95 | 99 | 49.4 | 32.91 | 210 |
| <u>Preemergence/ POST I (4-inch weeds)</u> | | | | | | | |
| 5 Valor SX / FirstRate + Phoenix + V10137 + AMS | 3 oz / 0.6 oz + 10 oz + 16 oz + 2 lb | 97 | 87 | 99 | 47.3 | - | - |
| 6 Pemdimax / FirstRate+Select+Cobra+COC+AMS | 3 / 0.3 oz + 8 oz + 6 oz + 1% + 2.5 lb | 99 | 74 | 99 | 40.6 | 45.76 | 154 |
| 7 Boundary / Flexstar + Fusion + COC + AMS | 1.5 pt / 16 oz + 8 oz + 1% + 2.5 lb | 96 | 80 | 99 | 38.4 | 48.39 | 140 |
| 8 Authority / Flexstar + Assure + COC + AMS | 5.3 oz / 16 oz + 9 oz + 1% + 2.5 lb | 97 | 63 | 99 | 32.4 | 42.20 | 117 |
| <u>Preemergence/ POST I (6-inch weeds)</u> | | | | | | | |
| 9 InRRo / RoundupWeatherMax + AMS | 4 / 22 oz + 2.5 lb | 99 | 97 | 99 | 52.1 | 38.98 | 217 |
| 10 Prowl H2O + Outlook / Roundup WeatherMax | 1 + 12.6 oz / 22 oz + 2.5 lb | 99 | 96 | 99 | 52.1 | 47.25 | 209 |
| 11 Gangster/ Roundup WeatherMax+AMS | 1.8 oz / 22 oz+2.5 lb | 99 | 99 | 99 | 51.1 | 38.79 | 212 |
| 12 Boundary / Touchdown Total + AMS | 1.25 pt / 24 oz + 2.5 lb | 99 | 99 | 99 | 50.3 | 41.69 | 205 |
| 13 Valor SX / Roundup WeatherMax+AMS | 2 oz / 22 oz+2.5 lb | 99 | 93 | 99 | 48.1 | 36.83 | 200 |
| 14 Valor SX + Python / Roundup WeatherMax+AMS | 1.5 oz + 0.5 oz / 22 oz + 2.5 lb | 99 | 98 | 99 | 52.4 | 39.64 | 218 |
| 15 Authority / Roundup WeatherMax+AMS | 4 oz / 22 oz+2.5 lb | 99 | 96 | 99 | 49.2 | 35.52 | 206 |

Table continued. 2004 Soybean Herbicide Evaluation (Waseca) Giant Ragweed Site

| Herbicide | Rate (pt/A) | Giant foxtail | Giant ragweed (% control) | Common lambsquarters | Yield (bu/A) | Cost | Income Over Herb (\$/A) |
|---|--|------------------|---------------------------------|-------------------------|-----------------|-------|-------------------------------|
| <u>POST I (4-inch weeds)</u> | | | | | | | |
| 16 Flexstar + Fusion + HarmonyGT + COC + AMS | 16 oz + 10 oz + 0.04 oz + 1% + 2.5 lb | 93 | 43 | 99 | 25.7 | 31.29 | 95 |
| 17 Flexstar + Fusion + FirstRate + COC + AMS | 16 oz + 10 oz + 0.3 oz + 1% + 2.5 lb | 94 | 90 | 50 | 38.6 | 38.79 | 151 |
| <u>POST I (4-inch weeds)/POST III(Canopy)</u> | | | | | | | |
| 18 Roundup WeatherMax+AMS/ Roundup Weather Max+AMS | 22 oz + 2.5 lb / 22 oz + 2.5 lb | 99 | 99 | 99 | 51.2 | 39.98 | 211 |
| <u>POST II (6-inch weeds)</u> | | | | | | | |
| 19 GF 1279 + FirstRate + AMS | 24 oz + 0.3 oz + 2.5 lb | 99 | 92 | 99 | 47.3 | - | - |
| 20 Clearout 41Plus + AMS | 32 oz + 2.5 lb | 99 | 93 | 99 | 47.1 | 18.16 | 213 |
| 21 GF 1279 + AMS | 24 oz + 2.5 lb | 98 | 92 | 99 | 45.0 | - | - |
| 22 Roundup WeatherMax+AMS | 22 oz + 2.5 lb | 99 | 92 | 99 | 43.0 | 23.99 | 187 |
| <u>Checks</u> | | | | | | | |
| 23 Weedy | - | 0 | 0 | 0 | 4.2 | 0.00 | 21 |
| 24 Hand-Weeded | - | 100 | 100 | 100 | 47.9 | 0.00 | 235 |
| LSD(0.10) | | | | | | | |
| 3 16 14 7.2 37 | | | | | | | |

Soybean Price = \$4.91
(Waseca Co. 2004 Loan Rate)

2004 Soybean Herbicide Evaluation (Waseca)

Common Cocklebur Site

| Herbicide | Rate (pt/A) | Giant foxtail Common cocklebur Common ragweed lambsquarters Velvetleaf Yield Cost | | | | | | Income Over Herb | |
|--|--|---|----|--------|----|--------|-------|------------------|-----|
| | | (% control) | | (bu/A) | | (\$/A) | ----- | | |
| <u>Preemergence</u> | | | | | | | | | |
| 1 Pendimax + Gangster | 3 +3.6 oz | 86 | 84 | 94 | 99 | 99 | 41.1 | 32.30 | 169 |
| <u>Preplant incorporate 2X/POST I (4-inch weeds)</u> | | | | | | | | | |
| 2 Prowl H2O / Raptor + UltraBlazer + NIS + AMS | 43 oz / 4 oz+ 8 oz + 0.25%+2.5 lb | 74 | 78 | 36 | 99 | 74 | 4.3 | 44.52 | -24 |
| 3 Pusuit Plus / Rezult B + Rezult G + NIS + AMS | 2.5 / 1.6 + 1.6 + 0.25% + 2.5 lb | 98 | 49 | 16 | 99 | 99 | 10.4 | 38.11 | 13 |
| 4 Prowl H2O / Extreme + NIS + AMS | 43 oz / 3 pt + 0.125% + 2.5 lb | 99 | 93 | 86 | 91 | 97 | 24.5 | 32.91 | 87 |
| <u>Preemergence/ POST I (4-inch weeds)</u> | | | | | | | | | |
| 5 Valor SX / FirstRate + Phoenix + V10137 + AMS | 3 oz / 0.6 oz + 10 oz + 16 oz + 2 lb | 98 | 98 | 99 | 99 | 99 | 28.7 | - | - |
| 6 Pemdimax / FirstRate + Select + Cobra + COC + AMS | 3 / 0.3 oz + 8 oz + 6 oz + 1% + 2.5 lb | 98 | 94 | 90 | 91 | 57 | 28.9 | 45.76 | 96 |
| 7 Boundary / Flexstar + Fusion + COC + AMS | 1.5 pt / 16 oz + 8 oz + 1% + 2.5 lb | 95 | 86 | 95 | 99 | 99 | 35.0 | 48.39 | 123 |
| 8 Authority / Flexstar + Assure + COC + AMS | 5.3 oz / 16 oz + 9 oz + 1% + 2.5 lb | 99 | 93 | 97 | 99 | 99 | 34.5 | 42.20 | 127 |
| <u>Preemergence/ POST I (6-inch weeds)</u> | | | | | | | | | |
| 9 InRRo / Roundup WeatherMax + AMS | 4 / 22 oz + 2.5 lb | 97 | 93 | 96 | 99 | 96 | 31.3 | 38.98 | 115 |
| 10 Prowl H2O + Outlook / Roundup WeatherMax | 1 + 12.6 oz / 22 oz + 2.5 lb | 99 | 91 | 82 | 99 | 96 | 41.5 | 47.25 | 156 |
| 11 Gangster/ Roundup WeatherMax + AMS | 1.8 oz / 22 oz + 2.5 lb | 94 | 96 | 99 | 99 | 99 | 50.7 | 38.79 | 210 |
| 12 Boundary / Touchdown Total + AMS | 1.25 pt / 24 oz + 2.5 lb | 99 | 89 | 90 | 96 | 89 | 47.4 | 41.69 | 191 |
| 13 Valor SX / Roundup WeatherMax + AMS | 2 oz / 22 oz + 2.5 lb | 95 | 97 | 99 | 99 | 94 | 47.1 | 36.83 | 194 |
| 14 Valor SX + Python / Roundup WeatherMax + AMS | 1.5 oz + 0.5 oz / 22 oz + 2.5 lb | 94 | 98 | 95 | 99 | 99 | 49.0 | 39.64 | 201 |
| 15 Authority / Roundup WeatherMax + AMS | 4 oz / 22 oz + 2.5 lb | 96 | 95 | 84 | 99 | 99 | 38.5 | 35.52 | 153 |

Table continued. 2004 Soybean Herbicide Evaluation (Waseca) Common Cocklebur Site

| Herbicide | Rate (pt/A) | Giant foxtail common cocklebur common ragweed lambsquarters velvetleaf | | | | | | | Yield (bu/A) | Cost | Income Over Herb (\$/A) | | |
|---|--|--|-----|-----|-----|-----|------|-------|-----------------|------|-------------------------------|--|--|
| | | (% control) | | | | | | | | | | | |
| <u>POST I (4-inch weeds)</u> | | | | | | | | | | | | | |
| 16 Flexstar + Fusion + HarmonyGT + COC + AMS | 16 oz + 10 oz + 0.04 oz + 1% + 2.5 lb | 61 | 87 | 83 | 91 | 83 | 12.8 | 31.29 | 32 | | | | |
| 17 Flexstar + Fusion + FirstRate + COC + AMS | 16 oz + 10 oz + 0.3 oz + 1% + 2.5 lb | 67 | 95 | 80 | 41 | 68 | 16.9 | 38.79 | 44 | | | | |
| <u>POST I (4-inch weeds)/POST III(Canopy)</u> | | | | | | | | | | | | | |
| 18 Roundup WeatherMax + AMS/ Roundup Weather Max + AMS | 22 oz + 2.5 lb / 22 oz + 2.5 lb | 98 | 96 | 99 | 88 | 89 | 32.7 | 39.98 | 121 | | | | |
| <u>POST II (6-inch weeds)</u> | | | | | | | | | | | | | |
| 19 GF 1279 + FirstRate + AMS | 24 oz + 0.3 oz + 2.5 lb | 98 | 94 | 95 | 89 | 94 | 33.5 | - | - | | | | |
| 20 Clearout 41Plus + AMS | 32 oz + 2.5 lb | 98 | 96 | 89 | 86 | 85 | 33.6 | 18.16 | 147 | | | | |
| 21 GF 1279 + AMS | 24 oz + 2.5 lb | 98 | 96 | 87 | 79 | 57 | 33.7 | - | - | | | | |
| 22 Roundup WeatherMax + AMS | 22 oz + 2.5 lb | 97 | 96 | 91 | 91 | 65 | 32.4 | 23.99 | 135 | | | | |
| <u>Checks</u> | | | | | | | | | | | | | |
| 23 Weedy | - | 0 | 0 | 0 | 0 | 0 | 1.0 | 0.00 | 5 | | | | |
| 24 Hand-Weeded | - | 100 | 100 | 100 | 100 | 100 | 48.0 | 0.00 | 236 | | | | |
| | | LSD(0.10) | 9 | 10 | 15 | 14 | 24 | 6.6 | 33 | | | | |

Soybean Price = \$4.91
(Waseca Co. 2004 Loan Rate)

2004 Soybean Herbicide Evaluation (Waseca)

Tall Waterhemp Site

| Herbicide | Rate (pt/A) | Giant foxtail | Tall waterhemp | Yield (bu/A) | Cost | Income Over Herb (\$/A) |
|--|--|------------------|-------------------|-----------------|-------|-------------------------------|
| | | --- | (% control) --- | ----- | ----- | ----- |
| <u>Preemergence</u> | | | | | | |
| 1 Pendimax + Gangster | 3 +3.6 oz | 61 | 73 | 37.1 | 32.30 | 150 |
| <u>Preplant incorporate 2X/POST I (4-inch weeds)</u> | | | | | | |
| 2 Prowl H2O / Raptor + UltraBlazer + NIS+AMS | 43 oz / 4 oz+ 8 oz + 0.25% + 2.5 lb | 69 | 99 | 33.8 | 44.52 | 121 |
| 3 Pusuit Plus / Result B + Result G + NIS + AMS | 2.5 / 1.6 + 1.6 + 0.25% + 2.5 lb | 99 | 61 | 40.5 | 38.11 | 161 |
| 4 Prowl H2O / Extreme + NIS+AMS | 43 oz / 3 pt + 0.125% + 2.5 lb | 99 | 99 | 53.8 | 32.91 | 231 |
| <u>Preemergence / POST I (4-inch weeds)</u> | | | | | | |
| 5 Valor SX / FirstRate + Phoenix + V10137 + AMS | 3 oz / 0.6 oz + 10 oz + 16 oz + 2 lb | 97 | 99 | 50.1 | - | - |
| 6 Pemdimax / FirstRate + Select + Cobra + COC + AMS | 3 / 0.3 oz + 8 oz + 6 oz + 1% + 2.5 lb | 99 | 99 | 48.5 | 45.76 | 192 |
| 7 Boundary / Flexstar + Fusion + COC + AMS | 1.5 pt / 16 oz + 8 oz + 1% + 2.5 lb | 95 | 97 | 50.1 | 48.39 | 198 |
| 8 Authority / Flexstar + Assure + COC + AMS | 5.3 oz / 16 oz + 9 oz + 1% + 2.5 lb | 93 | 99 | 44.8 | 42.20 | 178 |
| <u>Preemergence / POST I (6-inch weeds)</u> | | | | | | |
| 9 InRRo / Roundup WeatherMax + AMS | 4 / 22 oz + 2.5 lb | 96 | 99 | 54.3 | 38.98 | 228 |
| 10 Prowl H2O + Outlook / Roundup WeatherMax | 1 + 12.6 oz / 22 oz + 2.5 lb | 95 | 96 | 49.7 | 47.25 | 197 |
| 11 Gangster/ Roundup WeatherMax + AMS | 1.8 oz / 22 oz + 2.5 lb | 94 | 99 | 49.7 | 38.79 | 205 |
| 12 Boundary / Touchdown Total + AMS | 1.25 pt / 24 oz + 2.5 lb | 99 | 98 | 53.8 | 41.69 | 223 |
| 13 Valor SX / Roundup WeatherMax + AMS | 2 oz / 22 oz + 2.5 lb | 97 | 99 | 54.9 | 36.83 | 233 |
| 14 Valor SX + Python / Roundup WeatherMax + AMS | 1.5 oz + 0.5 oz / 22 oz + 2.5 lb | 96 | 93 | 53.4 | 39.64 | 222 |
| 15 Authority / Roundup WeatherMax + AMS | 4 oz / 22 oz + 2.5 lb | 98 | 99 | 54.7 | 35.52 | 233 |
| <u>POST I (4-inch weeds)</u> | | | | | | |
| 16 Flexstar + Fusion + HarmonyGT + COC + AMS | 16 oz + 10 oz + 0.04 oz + 1% + 2.5 lb | 92 | 85 | 45.1 | 31.29 | 190 |
| 17 Flexstar + Fusion + FirstRate + COC + AMS | 16 oz + 10 oz + 0.3 oz + 1% + 2.5 lb | 93 | 67 | 45.1 | 38.79 | 183 |

Table continued. 2004 Soybean Herbicide Evaluation (Waseca) Tall Waterhemp Site

| Herbicide | Rate (pt/A) | Giant foxtail | Tall waterhemp | Yield (bu/A) | Cost | Income Over Herb (\$/A) |
|---|---------------------------------|------------------|-------------------|-----------------|-------|-------------------------------|
| | | --- | (% control) | --- | ----- | ----- |
| <u>POST I (4-inch weeds) / POST III(Canopy)</u> | | | | | | |
| 18 Roundup WeatherMax + AMS/ Roundup Weather Max + AMS | 22 oz + 2.5 lb / 22 oz + 2.5 lb | 99 | 99 | 50.8 | 39.98 | 209 |
| <u>POST II (6-inch weeds)</u> | | | | | | |
| 19 GF 1279 + FirstRate + AMS | 24 oz + 0.3 oz + 2.5 lb | 99 | 99 | 53.1 | - | - |
| 20 Clearout 41Plus + AMS | 32 oz + 2.5 lb | 98 | 96 | 47.6 | 18.16 | 215 |
| 21 GF 1279 + AMS | 24 oz + 2.5 lb | 99 | 99 | 52.3 | - | - |
| 22 Roundup WeatherMax + AMS | 22 oz + 2.5 lb | 99 | 99 | 53.7 | 23.99 | 240 |
| <u>Checks</u> | | | | | | |
| 23 Weedy | - | 0 | 0 | 13.7 | 0.00 | 67 |
| 24 Hand-Weeded | - | 100 | 100 | 54.7 | 0.00 | 268 |
| | | LSD(0.10) | 8 | 12 | 5.7 | 29 |

Soybean Price = \$4.91
(Waseca Co. 2004 Loan Rate)

2004 Soybean Herbicide Evaluation (Waseca)

Common Ragweed Site

| Herbicide | Rate (pt/A) | Giant foxtail | Common ragweed | Common lambsquarters | Velvet- leaf | Yield (bu/A) | Cost | Income Over Herb (\$/A) |
|--|---|------------------|-------------------|-------------------------|-----------------|-----------------|-------|-------------------------------|
| <u>Preemergence</u> | | | | | | | | |
| 1 Pendimax + Gangster | 3 +3.6 oz | 91 | 98 | 96 | 99 | 54.1 | 32.30 | 234 |
| <u>Preplant incorporate 2X / POST I (4-inch weeds)</u> | | | | | | | | |
| 2 Prowl H2O / Raptor + UltraBlazer + NIS + AMS | 43 oz / 4 oz+ 8 oz + 0.25% + 2.5 lb | 96 | 24 | 99 | 99 | 46.9 | 44.52 | 186 |
| 3 Pusuit Plus / Result B + Result G + NIS + AMS | 2.5 / 1.6 + 1.6 + 0.25% + 2.5 lb | 99 | 33 | 99 | 99 | 49.4 | 38.11 | 205 |
| 4 Prowl H2O / Extreme + NIS + AMS | 43 oz / 3 pt + 0.125% + 2.5 lb | 99 | 98 | 99 | 99 | 57.1 | 32.91 | 248 |
| <u>Preemergence / POST I (4-inch weeds)</u> | | | | | | | | |
| 5 Valor SX / FirstRate + Phoenix + V10137 + AMS | 3 oz / 0.6 oz + 10 oz + 16 oz + 2 lb | 95 | 99 | 99 | 99 | 57.5 | - | - |
| 6 Pemdimax / FirstRate + Select + Cobra + COC + AMS | 3 / 0.3 oz + 8 oz + 6 oz + 1% + 2.5 lb | 97 | 98 | 94 | 99 | 55.8 | 45.76 | 228 |
| 7 Boundary / Flexstar + Fusion + COC + AMS | 1.5 pt / 16 oz + 8 oz + 1% + 2.5 lb | 95 | 99 | 99 | 99 | 56.1 | 48.39 | 227 |
| 8 Authority / Flexstar + Assure + COC + AMS | 5.3 oz / 16 oz + 9 oz + 1% + 2.5 lb | 98 | 99 | 98 | 99 | 57.4 | 42.20 | 240 |
| <u>Preemergence / POST I (6-inch weeds)</u> | | | | | | | | |
| 9 InRRo / Roundup WeatherMax + AMS | 4 / 22 oz + 2.5 lb | 99 | 99 | 99 | 99 | 58.4 | 38.98 | 248 |
| 10 Prowl H2O + Outlook / Roundup WeatherMax | 1 + 12.6 oz / 22 oz + 2.5 lb | 99 | 99 | 99 | 99 | 58.2 | 47.25 | 238 |
| 11 Gangster/ Roundup WeatherMax + AMS | 1.8 oz / 22 oz + 2.5 lb | 99 | 99 | 99 | 99 | 61.6 | 38.79 | 264 |
| 12 Boundary / Touchdown Total + AMS | 1.25 pt / 24 oz + 2.5 lb | 99 | 99 | 99 | 99 | 61.5 | 41.69 | 261 |
| 13 Valor SX / Roundup WeatherMax + AMS | 2 oz / 22 oz + 2.5 lb | 99 | 99 | 99 | 99 | 56.9 | 36.83 | 242 |
| 14 Valor SX + Python / Roundup WeatherMax + AMS | 1.5 oz + 0.5 oz / 22 oz + 2.5 lb | 99 | 99 | 99 | 99 | 59.8 | 39.64 | 254 |
| 15 Authority / Roundup WeatherMax + AMS | 4 oz / 22 oz + 2.5 lb | 99 | 99 | 99 | 99 | 57.3 | 35.52 | 246 |

Table continued. 2004 Soybean Herbicide Evaluation (Waseca) Common Ragweed Site

| Herbicide | Rate (pt/A) | Giant foxtail | Common ragweed | Common lambsquarters | Velvet- leaf | Yield (bu/A) | Cost | Income Over Herb (\$/A) |
|---|--|------------------|-------------------|-------------------------|-----------------|-----------------|-------|-------------------------------|
| <u>POST I (4-inch weeds)</u> | | | | | | | | |
| 16 Flexstar + Fusion + HarmonyGT + COC + AMS | 16 oz + 10 oz + 0.04 oz + 1% + 2.5 lb | 93 | 93 | 88 | 99 | 54.4 | 31.29 | 236 |
| 17 Flexstar + Fusion + FirstRate + COC + AMS | 16 oz + 10 oz + 0.3 oz + 1% + 2.5 lb | 94 | 96 | 60 | 99 | 53.8 | 38.79 | 225 |
| <u>POST I (4-inch weeds) / POST III(Canopy)</u> | | | | | | | | |
| 18 Roundup WeatherMax + AMS/ Roundup Weather Max + AMS | 22 oz + 2.5 lb / 22 oz + 2.5 lb | 99 | 99 | 99 | 99 | 56.9 | 39.98 | 239 |
| <u>POST II (6-inch weeds)</u> | | | | | | | | |
| 19 GF 1279 + FirstRate + AMS | 24 oz + 0.3 oz + 2.5 lb | 98 | 99 | 91 | 99 | 53.5 | - | - |
| 20 Clearout 41Plus + AMS | 32 oz + 2.5 lb | 99 | 99 | 99 | 99 | 57.0 | 18.16 | 262 |
| 21 GF 1279 + AMS | 24 oz + 2.5 lb | 99 | 99 | 99 | 99 | 56.7 | - | - |
| 22 Roundup WeatherMax + AMS | 22 oz + 2.5 lb | 99 | 99 | 99 | 99 | 54.7 | 23.99 | 245 |
| <u>Checks</u> | | | | | | | | |
| 23 Weedy | - | 0 | 0 | 0 | 0 | 14.2 | 0.00 | 70 |
| 24 Hand-Weeded | - | 100 | 100 | 100 | 100 | 57.5 | 0.00 | 283 |
| LSD(0.10) | | | | | | | | |
| 3 8 10 1 3.9 19 | | | | | | | | |

Soybean Price = \$4.91
(Waseca Co. 2004 Loan Rate)