

Evaluation of Starane and other broadleaf herbicides for kochia control in HRSW. (1998)

'Amidon' hard red spring wheat was seeded May 5. Seedbed preparation was conventional with 6-inch row spacing and wheat seeded at 1 million pls/A. Herbicide treatments were applied June 12 at the 5-lf stage of wheat. Weeds present included kochia (Kocz), Russian thistle (Ruth), common lambsquarters (Colq), and prostrate pigweed (Prpw). This field was suspected to have a low population of sulfonyleurea-resistant (SU) kochia. Weed populations and sizes were kochia, 32/ft² and 5" tall; Russian thistle, 3/ft² and 2" tall; common lambsquarters, 3/ft² and 2" tall; and pigweed 3/ft² and 2" tall. The treatments were evaluated for percent weed control on July 3 and August 10. The wheat was harvested on August 24.

The 1X or 2X rate of Express did not control kochia more than 78%. Visual evaluations of treated kochia plants indicate that the field has about 20% SU-resistant kochia present. When we combined Express with Bronate, Starane, or 2,4-D + Banvel, kochia control was greater than 90%. Express did provide good control of the other weeds present. Kochia control was excellent with any treatment that included Starane or Bronate. Unfortunately, Starane by itself at 0.5 pt/A or 0.67 pt/A controlled only kochia and did not control the other broadleaf weeds. Whereas, Bronate provided good control of all weeds present. Combinations that included Stampede or Harmony Extra did not control kochia unless Buctril was present in the mixture. General broadleaf control with 2,4-D ester was better than with MCPA ester.

| Treatment | Rate | July 3 | | | | August 10 | | | | Yield bu/ac |
|---|---|----------------------|------|------|------|-----------|------|------|------|----------------|
| | | Kocz | Ruth | Colq | Prpw | Kocz | Ruth | Colq | Prpw | |
| | | -----% control ----- | | | | | | | | |
| Untreated | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 |
| Express + NIS | 1/6 oz/A 0.25% | 80 | 100 | 99 | 85 | 78 | 100 | 100 | 92 | 38 |
| Express + NIS | 1/3 oz/A 0.25% | 77 | 100 | 100 | 87 | 73 | 100 | 100 | 96 | 41 |
| Express + 2,4-D ester + Banvel + NIS | 1/6 oz/A 0.5 pt/A 2 fl oz/A 0.125% | 92 | 99 | 99 | 90 | 95 | 100 | 100 | 98 | 44 |
| Express + Bronate + NIS | 1/6 oz/A 0.75 pt/A 0.25% | 93 | 97 | 99 | 92 | 92 | 100 | 100 | 95 | 42 |
| Bronate | 1 pt/A | 95 | 98 | 98 | 93 | 94 | 100 | 100 | 93 | 33 |
| Starane + Bronate | 0.67 pt/A 0.75 pt/A | 99 | 98 | 100 | 91 | 100 | 98 | 100 | 97 | 44 |
| Starane | 0.5 pt/A | 93 | 20 | 20 | 17 | 98 | 33 | 23 | 30 | 39 |
| Starane | 0.67 pt/A | 95 | 37 | 23 | 17 | 99 | 35 | 23 | 33 | 42 |
| Starane + 2,4-D ester | 0.67 pt/A 0.5 pt/A | 94 | 84 | 92 | 90 | 100 | 99 | 100 | 92 | 42 |
| Starane + MCPA ester | 0.67 pt/A 0.5 pt/A | 94 | 53 | 60 | 50 | 96 | 82 | 91 | 85 | 38 |
| Express + | 1/6 oz/A | 96 | 95 | 97 | 87 | 98 | 98 | 100 | 95 | 42 |

