

Efficacy of the Starane Hi-Load Formulation in Winter Wheat

A field study was conducted to compare the efficacy of the Starane Hi-Load formulation to the current commercial formulation of Starane. The study was conducted in winter wheat at the High Plains Agricultural Laboratory located near Sidney, NE. The experimental design was a randomized complete block with three replications. Plots were 10 feet wide by 40 feet long. Herbicide treatments were applied with an ATV-mounted sprayer set to deliver 11 gallons/acre at 3 miles/hour and 20 psi. Winter wheat ('Millenium') was no-till seeded into pea stubble on September 20, 2006 at a rate of 55 pounds/acre. The study was located on an Alliance silt loam soil with an organic matter content of 2.4% and a pH of 7.6. Herbicide treatments were applied on April 17, 2007 to winter wheat plants that had 1 to 3 tillers. Weeds present at time of application were kochia and Russian thistle. Weeds were approximately 1 inch in height.

Kochia control was slightly better than Russian thistle control with all treatments except those containing Bronate Advanced. No significant differences were observed in the efficacy of the Starane Hi-Load formulation or the current Starane formulation, except when combined with Bronate Advanced. The Starane Hi-Load formulation did provide better control of kochia and Russian thistle than the current Starane formulation when combined with Bronate Advanced. The reason for this difference is unclear.

Excellent spring moisture resulted in excellent winter wheat growth, which was very competitive with weeds. No yield differences were observed (data not shown).

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| Treatment | Rate | Weed control on May16, 2007 | |
|-------------------|------------|-----------------------------|-----------------|
| | | Kochia | Russian thistle |
| | | % | |
| Starane Hi-Load | 4.3 oz/A | 95 | 86 |
| Starane | 8 oz/A | 98 | 86 |
| Starane Hi-Load | 4.3 oz/A | 99 | 90 |
| Affinity Tank Mix | 0.6 oz/A | | |
| NIS | 0.25 % v/v | | |
| Starane | 8 oz/A | 96 | 86 |
| Affinity Tank Mix | 0.6 oz/A | | |
| NIS | 0.25 % v/v | | |
| Starane Hi-Load | 2.88 oz/A | 98 | 98 |
| Bronate Advanced | 12.8 oz/A | | |
| Starane | 5.3 oz/A | 93 | 90 |
| Bronate Advanced | 12.8 oz/A | | |
| Check | | 0 | 0 |
| LSD (5%) | | 5 | 6 |