

Affinity TankMix and Affinity BroadSpec Tank Mixes with Florasulam

A field study was conducted to evaluate the efficacy of florasulam with Affinity TankMix and Affinity BroadSpec herbicides 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 2.6% and a pH of 6.8. Herbicide treatments were applied on April 28, 2007 to winter wheat plants that had 3 to 4 tillers. Weeds present at time of application were kochia and Russian thistle. Weeds were approximately 1 inch in height.

Florasulam provided good control of Russian thistle, particularly when applied at the 2.67 oz/A rate. It provided poor to fair control of kochia. The addition of Affinity TankMix or Affinity BroadSpec to 1.33 oz/A of florasulam did not improve weed control. The kochia and Russian thistle in this field contained about 50% SU-resistant kochia and Russian thistle populations. This undoubtedly affected the efficacy of the florasulam tank mix partners in this study. Florasulam is a triazolopyrimidine, which like the sulfonylyurea herbicides in both Affinity products, is an ALS inhibitor (Group 2).

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 May 29, 2007	
		Kochia	Russian thistle
		%	
Florasulam NIS	1.33 oz/A 0.25 % v/v	73	83
Florasulam NIS	2.67 oz/A 0.25 % v/v	77	90
Florasulam MCPA ester NIS	1.33 oz/A 11.5 oz/A 0.25 % v/v	73	85
Florasulam Adigor Pinoxaden	1.33 oz/A 9.6 oz/A 8.2 oz/A	75	82
Florasulam MCPA ester Harmony GT Express NIS	1.33 oz/A 11.5 oz/A 0.2 oz/A 0.2 oz/A 0.25 % v/v	73	80
Florasulam Adigor Pinoxaden Harmony GT Express	1.33 oz/A 9.6 oz/A 8.2 oz/A 0.48 oz/A 0.12 oz/A	73	80
Check		0	0
LSD (5%)		29	10