

Discover NG Herbicide Tank Mixes in Spring Wheat at Hettinger

Reeder hard red spring wheat was seeded on April 15. Treatments were applied to 3 ½ leaf wheat and to 2 ½ leaf wild oats on May 20 with 43°F, 94 % RH, clear sky and 2 mph NW wind. Treatments were applied with a tractor mounted CO² propelled plot sprayer delivering 10 gpa at 40 psi through 8001.5 flat fan nozzles to a 5 foot wide area the length of 10 by 28 foot plots. The experiment was a randomized complete block design with four replications. 10 oz/A 2,4-D + 0.5 oz/A Aim was applied on May 28 to control broadleaf weeds. Wild oat populations were 3 plants per sq. foot. A strip of quackgrass was observed in one rep and data was collected from those plots. The trial sustained frost on May 13 (16°F) and on June 18 (25°F), and received a total of 5.4 inches of growing season rainfall (April 1 - July 31). Evaluations for crop injury were on June 3, and for weed control on July 13. The trial was harvested on August 6.

Treatment		Rate	June 6	July 13		8/6
			HRSW	Wiot	Qugr	Yield
Product	oz/A		----- % Control -----			bu/A

1	Discover NG	12.8	2.5	98	95	13.9
2	Discover NG + Bronate Adv.	12.8 + 12.8	3.8	99	0	16.9
3	Discover NG + Bronate Adv. + Quilt	12.8 + 12.8 + 7	1.2	99	90	19.4
4	Discover EC + DSV + Bronate Adv. + Quilt	3.2 + 10.2 + 12.8 + 7	0	99	95	12.7
5	Discover NG + WideMatch	12.8 + 12	0	99	95	12.8
6	Discover NG + Harmony GT + MCPE	12.8 + 0.3 + 12	0	99	50	14.0
7	Discover NG + Harmony GT + Starane	12.8 + 0.3 + 5.28	1.2	99	90	13.1
8	Discover NG + Starane + Affinity	12.8 + 5.28 + 0.6	1.2	99	80	12.4
9	Discover NG + Clarity + MCPE	12.8 + 2 + 8	2.5	99	85	13.3
10	Puma + Bronate Adv.	10.56 + 12.8	0	99	0	15.5
11	Untreated	0	0	0	0	12.6
C.V. %			164	0.7	--	11.7
LSD 5%			NS	1	--	2.4

Summary

Crop injury was minor for all herbicide treatments. All herbicide treatments and tank mix combinations provided excellent season long wild oat control. Very good quackgrass control was observed although the Discover Herbicide label does not list any activity on this weed. Additional studies are needed to verify this control. Although significant differences in grain yield were observed, these differences did not correspond with crop injury or weed control. Grain yields were poor and probably reflected weather conditions rather than effects of the herbicide treatments.