

2011 PrePare/Sierra Control of Bromes in Spring Wheat

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Pre-plant (PP) treatments were applied on May 8 to 3 leaf downy brome (dobr) with 52° F, 69% RH, cloudy sky and east wind at 3 mph. ‘Mott’ HRSW was seeded no-till on May 16. Post-emergence (POST) treatments were applied on June 8 to 3 leaf wheat, heading downy brome, tillering Japanese brome (jabr), 2 leaf wild oat (wiot) and 1 leaf Persian danel (peda) with 56° F, 58% RH, cloudy sky and southeast wind at 5 mph. Treatments were applied with a tractor mounted CO₂ propelled plot sprayer delivering 10 gpa at 30 psi through PK-01E80 nozzles to a 5 foot wide area the length of 10 by 28 foot plots. The soil is classified as a silt-loam with a pH of 6.2 and OM of 3.2%. The trial was a randomized complete block design with three replications. Weed populations for downy brome, Japanese brome, wild oat and Persian danel were 2, 4, 0.5 and 0.75 plants per square foot, respectively. Plots were evaluated for crop injury on June 8, June 14, June 20, June 30 and July 18, and for weed control on June 30, July 18 and August 16. The trial was harvested on August 20.

Treatment	Product rate oz/A	App. Timing	- June 30 -		----- July 18 -----				---- August 16 ----			Test weight lbs/bu	Grain yield bu/A
			jabr	peda	inj	wiot	jabr	peda	jabr	dobr	peda		
1 Untreated			0	0	0	0	0	0	0	0	0	53.8	12.7
2 PrePare+AMS+NIS	0.3+1.5lb+0.25%	PP	73	0	0	0	90	0	98	17	0	58.0	25.9
3 PrePare+AMS+T'down Total	0.3+1.5lb+24	PP	93	0	0	0	98	0	98	93	0	58.2	25.5
4 PrePare+AMS+NIS fb Sierra + Basic Blend	0.3+1.5lb+0.25% 0.35 + 1%	PP POST	91	0	0	99	96	10	99	81	0	57.5	25.2
5 PrePare+AMS+T'down Total fb Sierra + Basic Blend	0.3+1.5lb+24 0.35 + 1%	PP POST	98	0	0	99	99	10	98	92	0	58.1	26.9
6 PrePare+AMS+NIS fb Sierra + Basic Blend	0.3+1.5lb+0.25% 0.5 + 1%	PP POST	80	10	0	99	90	10	99	53	0	57.9	28.1
7 PrePare+AMS+T'down Total fb Sierra + Basic Blend	0.3+1.5lb+24 0.5 + 1%	PP POST	99	10	0	99	99	17	99	98	0	58.1	29.6
8 Rimfire Max + Basic Blend	3 + 1%	POST	96	0	0	99	93	7	99	70	0	57.9	25.7
C.V. %			13	321	0	0	7	192	2	29	0	1.5	13.8
LSD .05			18	NS	NS	1	10	NS	2	32	NS	1.5	6.1

NS = no statistical difference between treatments

Summary

Crop injury was not observed. All herbicide treatments provided excellent season long control of Japanese brome. Pre-plant treatments alone (trts 2 & 3) did not provide any residual control of wild oats, but the addition of Sierra applied post-emergence provided excellent control of wild oats. The addition of Touchdown Total to pre-plant treatments significantly enhanced downy brome control. None of the treatments controlled Persian danel.