

**2002 Reduced Rates and Application Timing of Wild Oat Herbicides at Hettinger.**

(Eriksmoen) The objective of this trial was to look at the relationship between various rates of wild oat herbicides applied at 2 different growth stages of HRSW. Reeder HRSW was planted on April 30. The first post-applied treatments were applied to 3 leaf wheat and to 3 leaf wild oats on May 31 with 63 deg. F, 66% RH, sunny sky and 10 mph wind. The second post-applied treatments were applied to 5 leaf wheat and to 5 leaf wild oats on June 11 with 45 deg. F, 65% RH, sunny sky and 5 mph wind. All treatments were applied with a tractor mounted CO2 propelled plot sprayer delivering 17 gpa at 40 psi through 8001 flat fan nozzles to a 5 foot wide area the length of 10 by 22 foot plots. The trial was sprayed with 8 ounces/Ac Starane + 1 pint/Ac Buctril on June 7 to control broadleaf weeds. The experiment was a randomized complete block design with four replications. Wild oat populations were 22 plants per sq. foot. Evaluations for wild oat control were on July 2 and July 16. Patches of downy brome, Japanese brome and foxtail barley were non-uniformly scattered throughout the trial and were evaluated for control when observed. The trial was not harvested due to a thin and short wheat stand caused by severe drought.

App. Timing	Treatment	Product Rate	Wild Oat Rate	2001 Wiot	July 2, 2002				7/16 Wiot
					Wiot	Dobr	Jabr	Fxba	
		oz/acre	----- % Control -----						
HRSW			Full	72	98	0	0	--	99
3 leaf	Puma	10.6	Full	72	98	0	0	--	99
3 leaf	Puma	7.9	3/4	59	93	0	0	10	88
3 leaf	Puma	5.3	1/2	25	75	0	15	--	75
5 leaf	Puma	10.6	Full	92	79	--	50	--	72
5 leaf	Puma	7.9	3/4	82	58	--	0	--	44
5 leaf	Puma	5.3	1/2	62	22	--	0	--	21
3 leaf	Everest + NIS	0.60 + 0.25%	Full	90	98	50	96	--	99
3 leaf	Everest + NIS	0.45 + 0.25%	3/4	89	99	50	94	--	99
3 leaf	Everest + NIS	0.30 + 0.25%	1/2	88	98	70	99	--	97
5 leaf	Everest + NIS	0.60 + 0.25%	Full	62	98	--	90	--	99
5 leaf	Everest + NIS	0.45 + 0.25%	3/4	84	98	--	--	--	99
5 leaf	Everest + NIS	0.30 + 0.25%	1/2	72	95	--	90	--	99
3 leaf	Discover + DSV	3.20 + 12.8	Full	90	99	0	0	0	99
3 leaf	Discover + DSV	2.40 + 12.8	3/4	90	99	--	17	--	98
3 leaf	Discover + DSV	1.60 + 12.8	1/2	86	94	50	0	--	97
5 leaf	Discover + DSV	3.20 + 12.8	Full	95	98	--	0	--	99
5 leaf	Discover + DSV	2.40 + 12.8	3/4	95	98	--	50	--	99
5 leaf	Discover + DSV	1.60 + 12.8	1/2	92	98	--	0	--	99
3 leaf	Achieve + SC+ AMS	7.0 + 0.5% + 1%	Full	71	80	0	45	--	79
3 leaf	Achieve + SC+ AMS	5.25 + 0.5% + 1%	3/4	84	62	--	45	0	70
3 leaf	Achieve + SC+ AMS	3.50 + 0.5% + 1%	1/2	75	68	0	48	50	55
5 leaf	Achieve + SC+ AMS	7.0 + 0.5% + 1%	Full	81	65	--	0	--	71
5 leaf	Achieve + SC+ AMS	5.25 + 0.5% + 1%	3/4	89	82	--	--	--	82
5 leaf	Achieve + SC+ AMS	3.50 + 0.5% + 1%	1/2	52	72	--	99	--	82
C.V. %				32.9	20.2	74	83	--	20.6
LSD 5%				25	23	ns	40	--	23

\*NIS=non ionic surfactant, DSV adjuvant, SC=super charge, AMS=ammonium sulfate.

**Summary**

Crop injury was minimal (>1% stunting) and was not consistent across replications (data not

shown). Full and 3/4 rates of Puma provided good wild oat control when applied at the 3 leaf stage. Wild oat control was significantly reduced when Puma was applied at the 5 leaf stage. This is the opposite of what took place in 2001 where Puma applied at the 5 leaf stage resulted in higher wild oat control than when applied at the 3 leaf stage. This was probably due to additional wild oat flushes emerging after the 3 leaf stage application in 2001, with Puma providing good control of small wild oats and less activity on larger wild oats. All application rates and timing of application of Everest and Discover provided excellent wild oat control in 2002. Achieve treatments did not provide adequate wild oat control. Everest treatments had fair control of downy brome and excellent control of Japanese brome. Achieve treatments also provided fair control of Japanese brome but no activity on downy brome. Some herbicidal activity was observed on Foxtail barley with Puma and Achieve.