

**ET Herbicide for In-Crop Applications in Wheat at Hettinger, ND**

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‘Howard’ HRSW was seeded on April 30. Treatments were applied on June 1 to 4 ½ leaf wheat and to 2” kochia (kocz), 2” Russian thistle (ruth) and to 2 leaf wild buckwheat (wibw) with 69° F, 58% RH, clear sky and NW wind at 3 mph. Treatments were applied with a tractor mounted CO<sub>2</sub> 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 trial was a randomized complete block design with three replications. HRSW, kochia, Russian thistle and wild buckwheat populations were 8, 29, 3 and 0.7 plants per square foot, respectively. Plots were evaluated for crop injury on June 10 and June 18 and for weed control on June 10, June 18 and on August 1. The trial was harvested on August 8.

Treatment*	Rate	----- June 10 -----				----- June 18 -----				8/1 kocz	Test Weight	Crop Yield	
		inj	kocz	ruth	wibw	inj	kocz	ruth	wibw				
	oz/A	----- % Control -----										lbs/bu	bu/a
1 ET + MCPA ester	0.75 + 16	13	87	98	95	0	91	93	95	93	46.2	31.8	
2 ET + Buctril	0.75 + 24	10	93	96	95	0	92	96	96	98	47.9	29.7	
3 ET + 2,4-D ester	0.75 + 16	17	90	92	55	0	90	95	96	90	47.7	20.3	
4 ET + Ally Extra	0.75 + 0.1	3	80	98	90	0	76	96	99	91	45.6	24.3	
5 ET + Ally Extra	0.75 + 0.2	2	60	93	92	0	80	96	85	82	49.1	26.7	
6 MCPA ester	16	0	30	37	0	0	91	90	7	77	45.3	26.3	
7 Untreated	--	0	0	0	0	0	0	0	0	0	43.3	22.5	
C.V.%		49	17	15	24	337	14	8	9	13	7.4	19.8	
LSD .05		6	19	20	26	NS	19	11	11	18	NS	NS	

**Summary**

Crop injury (leaf spotting) was quite evident initially but diminished quickly. All herbicide treatments except for ET + 0.2 oz/A Ally Extra (trt 5) and MCPA alone (trt 6) provided excellent season long kochia control. MCPA alone (trt 6) was not effective on wild buckwheat but when combined with ET herbicide (trt 1), control was excellent. All herbicide treatments provided excellent Russian thistle control. Test weights were very light due to late season heat and moisture stress. Although there were no statistical differences for grain yield between treatments, all herbicide treatments with the exception on ET + 2,4-D (trt 3) had higher yields than the untreated check.