

Broadleaf Weed Control with ET Herbicide in Wheat at Hettinger

This project was funded by Nichino America.

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Reeder hard red spring wheat was seeded on April 18. Treatments were applied to 5 leaf wheat, 1" kochia, 3" wild buckwheat and 4" field bindweed on June 3 with 70°F, 57% RH, mostly sunny sky and 2 mph W wind. 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 experiment was a randomized complete block design with four replications. Kochia, wild buckwheat and field bindweed populations were 28, 4 and 1 plants per ft², respectively. Plots were evaluated for crop injury on June 9 and June 17, and for weed control on June 9, June 17, July 1 and July 22. The trial was harvested on August 5.

Summary

Significant crop injury was observed on 2,4-D + ET treatments (trts 4 and 5) and on ET alone treatments (trts 8 and 9), and probably caused grain yield reductions. Injury symptoms appeared as leaf burning and leaf chlorosis which diminished over time. All treatments with the exception of the ET alone treatments (trts 8 and 9) provided excellent season long wild buckwheat control. All treatments except for the Harmony GT alone and the ET alone treatments (trts 2, 8 and 9) provided excellent season long field bindweed control. All treatments except for the Harmony GT alone and Harmony GT + ET treatments (trts 2 and 6) provided excellent season long kochia control. None of the treatments provided significantly higher or lower grain yields than the untreated check.

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Treatment	Product Rate	----- June 9 -----				----- June 17 -----				----- July 1 -----			7/22	Grain	
		HRSW	kocz	wibw	fibw	HRSW	kocz	wibw	fibw	kocz	wibw	fibw	kocz	Yield	
oz/Ac		----- % Control -----													bu/Ac
1	2,4-D (LV4) + NIS	12 + 0.25%	2	69	48	50	0	70	84	89	94	95	94	91	16.5
2	Harmony GT + NIS	0.3 + 0.25%	2	38	90	35	0	32	92	60	30	94	72	45	16.2
3	Harmony GT + 2,4-D + NIS	0.3 + 8 + 0.25%	0	74	86	45	0	55	96	58	88	94	94	91	16.6
4	2,4-D + ET + NIS	8 + 0.25 + 0.25%	20	62	90	88	0	84	90	90	95	95	95	92	13.4
5	2,4-D + ET + NIS	8 + 1.0 + 0.25%	29	80	50	90	2	80	89	91	95	92	92	96	13.2
6	Harmony GT + ET + NIS	0.3 + 0.5 + 0.25%	5	82	90	86	0	45	91	91	85	90	91	82	15.7
7	2,4-D+Harm. GT+ET+NIS	8+0.3+0.5+ 0.25%	5	82	88	88	0	78	94	95	92	91	92	94	16.6
8	ET + NIS	1.0 + 0.25%	14	50	55	50	0	59	42	61	90	50	45	96	14.8
9	ET + NIS	2.0 + 0.25%	28	79	90	89	2	85	91	91	92	81	84	97	14.6
10	Untreated		0	0	0	0	0	0	0	0	0	0	0	0	15.0
C. V. %			17.5	16.0	6.3	10.4	233	25.2	7.2	15.0	6.9	7.3	14.0	7.6	8.1
LSD .05			3	14	6	9	1	21	8	16	14	8	15	9	1.8

kocz = kochia, wibw = wild buckwheat, fibw = field bindweed.