

**Broadleaf tank-mixes with reduced fenoxaprop rates.** Howatt, Kirk A., Ronald F. Roach, Janet D. Harrington. An experiment was established to evaluate antagonism when fenoxaprop at reduced rates was applied with broadleaf herbicides. "Oxen" hard red spring wheat was seeded May 2. Treatments were applied to 3.5 leaf wheat and wild oat on June 4 with 75 F, 17% relative humidity, 25% cloudcover, 0 to 4 mph north-northeast wind and soil temperature of 62 F. Treatments were applied with a backpack sprayer delivering 8.5 gpa at 40 psi through 11001 flat fan nozzles to a 7 ft wide area the length of 10 by 30 ft plots. Wild oat population was greater than 300 plants/ft<sup>2</sup>. 4 by 30 ft area from each plot was harvested on August 5. The experiment was a randomized complete block design with four replicates.

There was no wheat injury. Dicamba + carfentrazone antagonized fenoxaprop activity the most reducing wild oat control by 15 to 16 percentage points compared to fenoxaprop alone on June 20. Applying the full rate of fenoxaprop did not prevent antagonism from broadleaf herbicides. Even though reduced fenoxaprop rate and broadleaf tank-mixes resulted in reduced wild oat control, wheat yields from herbicide treated plots were very similar. (Dept. of Plant Sciences, North Dakota State University, Fargo).

Table. Broadleaf tank-mixes with reduced fenoxaprop rates (Howatt, Roach, and Harrington).

Treatment <sup>a</sup>	Rate	Jun 20	Jul 04	Aug 05
		AVEFA	AVEFA	Yield
	(oz/A)	(%)	(%)	(bu/A)
Fenoxaprop	1.32	95	96	49
Fenoxaprop	1	92	93	48
Fenoxaprop+brox&MCPA	1.32+4&4	89	91	47
Fenoxaprop+brox&MCPA	1+4&4	85	86	47
Fenx+thif&trib+fluroxypyr&MCPA	1.32+0.15&0.07+1.6&6.4	83	85	48
Fenx+thif&trib+fluroxypyr&MCPA	1+0.15&0.07+1.6&6.4	82	81	48
Fenx+dicamba+carfentrazone+NIS	1.32+1.5+0.128+0.25%	80	84	48
Fenx+dicamba+carfentrazone+NIS	1+1.5+0.128+0.25%	76	79	48
Untreated	0	0	0	27
CV		4	3	12
LSD 5%		4	3	8

<sup>a</sup>NIS was Activator 90 from Loveland Industries, Greeley, CO.