

Broadleaf tank-mixes with reduced CGA-184927 rates. Howatt, Kirk A., Ronald F. Roach, and Janet D. Harrington. An experiment was established to evaluate antagonism when CGA-184927 at reduced rates were 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 71 F, 22% relative humidity, 50% cloudcover, 1 to 8 mph wind, and soil temperature of 59 F. Treatments were applied with a backpack type sprayer delivering 8.5 gpa at 40 psi through 8001 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/ft². A 4 by 30 ft area was harvested from each plot on August 5. The experiment was a randomized complete block design with four replicates.

There was no wheat injury. CGA-184927 at 0.8 oz/A overcame initial broadleaf herbicide antagonism by the July 4 evaluation. CGA-184927 at 0.4 oz/A provided similar control to 0.8 oz/A in the absence of broadleaf herbicides. Thifensulfuron & tribenuron + fluroxypyr & MCPA was the most antagonistic broadleaf combination, reducing wild oat control by 11 and 21 percentage points for 0.54 and 0.4 oz/A CGA-184927, respectively. Bromoxynil & MCPA or dicamba + carfentrazone each reduced wild oat control by about 10% with reduced CGA-184927 rates. (Dept. of Plant Sciences, North Dakota State University, Fargo).

Table. Broadleaf tank-mixes with reduced CGA-184927 rates (Howatt, Roach, and Harrington).

Treatment ^a	Rate (oz/A)	Jun 20	Jul 04	Aug 05
		AVEFA (%)	AVEFA (%)	Yield (bu/A)
CGA-184927+PO(DSV)	0.8+1%	96	99	48
CGA-184927+PO(DSV)+PO	0.54+0.6%+0.4%	95	97	48
CGA-184927+PO(DSV)+PO	0.4+0.5%+0.5%	93	96	44
CGA-184927+brox&MCPA+PO(DSV)	0.8+4&4+1%	93	98	50
CGA-184927+brox&MCPA+PO(DSV)+PO	0.54+4&4+0.6%+0.4%	86	92	48
CGA-184927+brox&MCPA+PO(DSV)+PO	0.4+4&4+0.5%+0.5%	73	86	47
CGA-184927+thif&trib+flox&MCPA+PO(DSV)	0.8+0.15&0.07+1.6&6.4+1%	87	96	49
CGA-184927+thif&trib+flox&MCPA+PO(DSV)+PO	0.54+0.15&0.07+1.6&6.4+0.6%+0.4%	76	86	45
CGA-184927+thif&trib+flox&MCPA+PO(DSV)+PO	0.4+0.15&0.07+1.6&6.4+0.5%+0.5%	74	75	43
CGA-184927+dicamba+carf+PO(DSV)	0.8+1.5+0.128+1%	89	95	51
CGA-184927+dicamba+carf+PO(DSV)+PO	0.54+1.5+0.128+0.6%+0.4%	86	91	49
CGA-184927+dicamba+carf+PO(DSV)+PO	0.4+1.5+0.128+0.5%+0.5%	87	87	52
Untreated	0	0	0	22
CV		4	4	10
LSD 5%		5	4	6

^aCGA-184927 is Discover with a safener CGA-185072 (cloquintocet); PO(DSV) was in co-pac with CGA-184927 & CGA-185072 from Syngenta, Greensboro, NC; PO was Herbimax, Loveland Industries, Greeley, CO, and was added to attain labeled adjuvant rate.