Wild oat control in spring wheat at Aberdeen, SD 2002. Wrage, Leon J., Darrell L. Deneke, David A. Vos, Scott A. Wagner, and Brian T. Rook. The objective of this study was to evaluate wild oat control with postemergence herbicides in spring wheat. Treatments were established near Aberdeen, SD in 2002 on a Beotia-Great Bend clay loam soil. The seedbed was prepared in soybean residue using a field cultivator. Oxen spring wheat was seeded on April 23, 2002, at 75 lb/A using a press drill with 6 inch row spacing.

Treatments were arranged in a randomized complete block design with four replications of plots 10 x 50 feet. Herbicides were applied with a bicycle plot sprayer using compressed air equipped with 8002 flat fan nozzles spaced 20 inches set at 45 psi to deliver 20 gpa. Plots were visually evaluated for wild oat control and crop response. Yields were determined by harvesting a 5 by 45 foot area from the center of each plot using a plot combine. Application data, crop and weed growth stages and weather data are presented below.

Date applied	May 29, 2002
Treatment	POST
Temperature (F.)	
air	69°
Soil surface	dry
Sky (% cloudy)	30
Relative humidity (%)	64
Crop stage	4-5 lf
Wild oat	
plants/ft^2	30
size	3-4 lf

Crop and wild oat emergence was uniform. Limited early season precipitation reduced early crop growth and lowered yield potential. Comparisons included reduced and full rates of the wild oat herbicide used alone and compared tank-mix combinations to evaluate antagonistic response. Reduced rate of fenoxaprop-P and MKH6562 significantly reduced wild oat control compared to the higher rate. Reduced rate of CGA-184927 & CGA-185072 provide wild oat control similar to the high rate. Antagonistic response was indicated by reduced wild oat control for some tank-mix treatments. Dicamba and 2,4-D in the combination appeared to have the greatest antagonistic effect on the wild oat herbicide partner. Grain yields tended to be higher for herbicide treatments compared to the check. There were no significant differences in visual crop response to treatments. Results and data are summarized in the accompanying table. (Plant Science Department, South Dakota State University, Brookings, SD).

Table . Wild oat control in spring wheat at Aberdeen, SD, 2002 (Wrage, Deneke, Vos, Rook, and Wagner).

Herbicide[1/]	Rate	Crop Stage	Crop Vigor Reduction 6/12/02 14 DAT	AVEFA Control 6/20/02 14 DAT	Crop Vigor Reduction 7/23/02 55 DAT	AVEFA Control 7/23/02 55 DAT	Spring Wheat Yield	Spring Wheat Test Wt.
	(lb/A)			(%)		(%)	(bu/A)	(lb/bu)
check	----	—	0	0	0	0	27	56
imazamethabenz+NIS	0.375+0.25%	POST	0	75	0	87	34	57
CGA-184927&CGA-185072[2/]+SCORE	0.0625+1%	POST	0	94	0	99	36	57
CGA-184927&CGA-185072[2/]+SCORE	0.0375+1%	POST	0	95	0	96	35	57
fexoxaprop-P	0.106	POST	0	85	4	83	29	57
fexoxaprop-P	0.0635	POST	0	69	0	58	31	57
MKH6562+NIS	0.0262+0.25%	POST	0	82	0	93	33	57
MKH6562+NIS	0.0157+0.25%	POST	0	69	0	81	31	57
fenoxaprop-P+dicamba	0.106+0.125	POST	0	73	0	52	29	57
fenoxaprop-P+bromoxynil&MCPA[3/]	0.106+0.5	POST	0	79	0	71	32	57
fenoxaprop-P+thifensulfuron	0.106+0.0187	POST	0	85	0	82	32	57
fenoxaprop-P+thifensulfuron+NIS	0.106+0.0187+0/25%	POST	0	91	0	88	30	57
fenoxaprop-P+fluroxypyr	0.106+0.126	POST	0	87	0	91	30	57
fenoxaprop-P+carfentrazone	0.106+0.0078	POST	0	87	0	76	31	57
fexoxaprop-P+2,4-D AMINE	0.106+0.375	POST	0	70	1	69	30	57
CGA-184927&CGA-185072[2/]+ bromoxynil&MCPA+SCORE	0.0625+ 0.5+1%	POST	0	94	3	97	34	57
CGA-184927&CGA-185072[2/]+ thifensulfuron+SCORE	0.0625+ 0.0187+1%	POST	0	94	0	94	33	58
MKH6562+bromoxynil&MCPA[3/]+NIS	0.0262+0.5+0.25%	POST	0	74	3	88	29	57
MKH6562+thifensulfuron+NIS	0.0262+0.0187+0.25%	POST	0	71	0	85	30	57
fenoxaprop-P+fluroxypyr+ thifensulfuron	0.106+0.094+ 0.014	POST	0	84	0	86	32	57
fenoxaprop-P+fluroxypyr+ thifensulfuron+MCPA Ester	0.106+0.094+ 0.014+0.25	POST	0	79	3	83	34	57
fenoxaprop-P+thifensulfuron+ carfentrazone	0.106+0.014+ 0.0078	POST	0	75	1	86	35	57
LSD (P=0.05)			0	9	4	18	5	1

[1/] Additives. NIS is X-77 nonionic surfactant by Loveland Industries and SCORE is petroleum oil by Syngenta.

[2/] Premix = Discover.

[3/] Premix = Bronate.