

Project Title: Evaluation of Wild Oat Herbicides in Spring Wheat
Project Leader: Bob Stougaard
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Objectives: Assess new and established wild oat herbicides for efficacy and crop tolerance.

Results:

McNeal spring wheat was planted on April 22 at 65 lb/A using a double disk press drill set to a planting depth of 1.5 inches. Wild oat seed was then planted in the center of each plot to assure a uniform weed density throughout the study site. Discover was applied at 0.05 and 0.06 lb ai/A alone or in combination with Bronate. Puma at 0.08 lb ai/A and Everest at 0.02 lb ai/A also were applied alone or in combination with Bronate. A non-treated check was included as a control. Herbicides were applied in 20 GPA on May 22 using teejet XR11002 nozzles. Wild oat and spring wheat ranged from the 1 to 2 tiller stage of development at the time of application.

Crop injury was minimal with all herbicide treatments with the exception of Everest. Crop injury with Everest initially ranged from 23 to 30 percent, with the greater injury being associated when tankmixed with Bronate. This trend continued throughout the season, but the degree of injury decreased with time. Initially, the addition of Bronate resulted in reduced wild oat control. This was especially evident with Puma and the low rate of Discover. However, this antagonistic effect was transiate and all treatments provided excellent control of wild oat by seasons' end. Although the Everest treatments did afford complete control of wild oat, these same treatments had some of the lowest yields and this is probably attributed to the early-season crop injury.

Summary:

All treatments provided excellent control of wild oat. Everest treatments resulted in early-season crop injury which negatively affected yields.

Future Plans:

Continue to evaluate wild oat herbicides in order to determine the consistency of control and crop injury potential over years.

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Treatment Name	Rate (lb ai/A)	Crop Injury	Crop Injury	Crop Injury	WO Control	WO Control	Yield 13% m
		%	%	%	%	%	bu/ac
		5/30/2003	6/16/2003	7/17/2003	6/10/2003	7/17/2003	8/1/2003
Untreated		0	0	0	0	0	42.9
Discover	0.05	0	0	0	96	96	62.2
Discover	0.0625	0	0	0	98	98	60.6
Discover	0.05	0	0	0	71	94	59.5
Bronate	0.75						
Discover	0.0625	0	7	0	96	98	57.9
Bronate	0.75						
Puma	0.082	5	7	0	95	96	52.9
Puma	0.082	0	0	0	30	94	54.2
Bronate	0.75						
Everest	0.0268	23	17	8	93	100	51.2
NIS	0.25						
Everest	0.0268	30	28	12	87	100	49.2
NIS	0.25						
Bronate	0.75						
LSD (P=0.5)		4.637	9.274	4.562	20.94	3.664	5.44
CV		41.33	82.66	118.59	16.36	2.45	5.77