

IMAZAMOX + MCPA TOLERANCE AND EFFICACY IN CLEARFIELD SPRING WHEAT

Ezra Aberle

The study was conducted at the NDSU Carrington Research Extension Center on a loam soil with a pH of 6.8 and 3.2 percent organic matter. Clearfield Hard Red Spring Wheat ‘Teal’ was seeded into 6-inch rows at 1.4 million pure live seeds per acre on May 15, 2003. Herbicide treatments (Table) were applied to 5-leaf wheat on June 9 with 55° F, 87% RH, 10% cloud cover, 6 mph wind, and 61° F soil temperature. Individual plots were 10 ft. by 30 ft. and arranged in a randomized complete block design with three replications. Herbicide treatments were applied with a CO₂-hand boom sprayer delivering 10 gpa at 26 psi through TJ 80015 flat fan nozzles. Percent control of

weed species present was also visually evaluated at two and four weeks after application. The trial was harvested for seed yield with a plot combine on August 21, 2003.

Crop competition was excellent throughout the trial and no significant differences were observed for weed control among treatments. Wheat seed yield ranged from 49.4 to 55.5 bu/A (Table). Treatments 4, 9, and 10 resulted in the highest yield, while treatments 2 and 5 were numerically lower than the untreated check. However, the low yield levels achieved probably prevented better separation of the treatment.

Table. Crop tolerance and efficacy of Beyond+MCPA in Clearfield spring wheat.

Treatment Name ^a	Rate lbai/A	Yield bu/A
Untreated Check	0	51.5
Beyond+NIS+28%N	0.0312+.025%v/v+1%v/v	50.6
Beyond+NIS+28%N	0.0469+.025%v/v+1%v/v	53.3
BAS 777...+NIS+28%N	0.281+.025%v/v+1%v/v	54.9
BAS 777...+NIS+28%N	0.0422+.025%v/v+1%v/v	49.4
Beyond+MCPA Ester+NIS+28%N	0.0312+0.25+.025%v/v+1%v/v	54.1
Beyond+MCPA Ester+NIS+28%N	0.0469+0.375+.025%v/v+1%v/v	53.1
Beyond+MCPA Ester+NIS+28%N	0.0312+0.165+.025%v/v+1%v/v	52.2
Beyond+MCPA Ester+NIS+28%N	0.0469+0.25+.025%v/v+1%v/v	55.5
Puma+Harmony GT+2,4-D Ester+NIS	0.0825+0.188+0.25+0.25%v/v	55.1
LSD (0.05)		3.5

^aNIS=noninonic surfactant=Induce.