Preemergence weed control alternatives in barley

The objective of this study was to evaluate barley tolerance to herbicides applied preemergence. The purpose is to find other herbicides that may be used in barley to control annual grasses where Group 1 resistance is a problem. Barley was planted on May 15 and herbicides were applied on May 16. We received the following rain events (≥ 0.10 in). April and May were quite dry months, while June rainfall was plentiful and well-spaced. July and August were generally dry as well.

May 18	0.15	June 1	0.61	July 3	0.37
May 27	0.28	June 2	0.21	July 10	0.44
May 29	0.12	June 10	0.96	July 19	0.41
		June 11	0.13		
		June 14	0.83		
		June 16	0.36		
		June 23	0.14		
		June 24	0.91		
		June 29	0.61		

Slight to moderate injury symptoms were observed with all treatments. Injury symptoms persisted longer with Zidua, Pre-Pare, Outlook, and Fierce. However, there were no statistical differences in height (July 24), yield, or test weight. There was considerable variability in crop growth due to the dry soil conditions.

Table: Preemergence weed control alternatives in barley. (1808)												
			Injury			Height	Yield	Test wt.				
Treatment	Rate	Timing	Jun-6	Jun-22	Jul-7	Jul-31	Jul-24	Aug-14	Aug-14			
			%				-cm-	-bu/A-	-lb/bu-			
Untreated			0	0	0	0	92	61	46.6			
Zidua	3 oz	PRE	18	43	39	32	84	55	46.9			
Warrant	1.5 qt	PRE	8	8	2	1	93	72	47.8			
Dual II Magnum	1.67 pt	PRE	13	16	13	8	93	66	47.3			
Pre-Pare	0.3 oz	PRE	48	52	36	31	90	66	47.0			
Prowl H2O	3 pt	PRE	12	9	4	2	94	73	47.1			
Valor	2 oz	PRE	21	14	9	7	93	72	46.9			
Outlook	18 oz	PRE	15	18	15	13	88	61	47.4			
Fierce	3 oz	PRE	25	27	17	15	94	66	47.0			
LSD (0.05)			6.1	16.9	20.2	15.9	NS	NS	NS			
CV								11.5				