Barley tolerance to soil-applied herbicides

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 10 and herbicides were applied on May 11. Soil conditions were very dry for the first month after application. Only 0.19 and 0.24 inches of rain fell on May 15 and 16, respectively. About 0.34 and 0.72 inches of rain fell on June 9 and June 14, respectively. Overall, we received only about 1/3 of normal rainfall for the season.

Only Pre-Pare caused moderate crop injury in this study. Barley yield was slightly lower in the Pre-Pare treatment. None of the other treatments caused more than 6% injury.

Table. Barley tolerance to soil-applied herbicides. (1708)

		Injury				Density	Yield	Test wt.	Protein	Plumps	Thins
Treatment	Rate	Jun-3	Jun-10	Jul-10	Jul-28	May-30	Aug-7	Aug-7	Aug-7	Aug-7	Aug-7
		----------%----------				m of row	bu/A	lb/bu	--------%--------		
Untreated		0	0	0	0	32.4	52.1	43.1	13.5	77.7	21.0
Zidua	3 oz	0	0	0	0	33.7	62.8	43.1	13.4	77.0	21.7
Warrant	1.5 qt	0	0	0	0	32.0	55.8	43.1	13.3	78.7	20.3
Dual II Magnum	1.67 pt	0	0	4	3	31.8	59.5	43.0	13.3	78.0	21.0
Pre-Pare	0.3 oz	23	23	20	22	31.4	49.9	42.6	13.6	84.3	14.7
Prowl H2O	3 pt	0	0	0	0	32.2	59.2	43.1	13.2	79.3	19.7
Valor	2 oz	0	0	5	6	33.2	57.6	42.4	13.0	83.3	16.0
Outlook	18 oz	0	0	5	4	29.1	61.5	43.5	12.8	81.0	18.0
Fierce	3 oz	0	0	6	5	30.7	63.4	43.0	13.5	78.7	19.7
LSD (0.05)		1.7	1.7	6.4	7.3	NS	NS	NS	NS	NS	NS
CV		37.1	37.1	82.6	96.2	7.4	17.5	2.1	7.6	9.2	34.3

[a] *All treatments applied preemergence.*