Mayweed Chamomile Control in Spring Barley with Starane® Flex Herbicide

A field study was conducted on the Mike and Pat Abbott farm near Davenport, WA to investigate the control of mayweed chamomile with Starane Flex (florasulam + fluroxypyr) in spring barley. The soil was a Mondovi silt loam with 3% organic matter and a pH of 7.0. The experimental design was a randomized complete block with four replications. Fertilizer was applied at planting at the rate of 80 lb N/acre, 10 lb P/acre, and 10 lb S/acre. 'Champion' spring barley was planted at a rate of 80 pounds per acre on April 16, 2013 using a Flexi-coil drill with 12-inch row spacing. The postemergence herbicide applications were made on May 30, 2013 using a CO_2 backpack sprayer set to deliver 10 gpa at 30 psi and 3 mph. Mayweed chamomile was 2 inches in diameter at the time of application. The plots were harvested for grain yield on August 28, 2013.

Slight crop injury was observed in a couple of the treatments containing 2,4-D ester. No other crop injury was observed. Excellent control of mayweed chamomile was achieved with Huskie (pyrasulfotole + bromoxynil) + 2,4-D, Widematch (clopyralid + fluroxypyr), and Starane Flex + Bronate Advanced (bromoxynil + MCPA ester). Starane Flex tank mixed with 2,4-D ester, MCPA ester, or Affinity BroadSpec (thifensulfuron + tribenuron) provided fair to good control of mayweed chamomile. There appeared to be some segregation of the mayweed chamomile population at this site for tolerance to the Group 2 herbicides (see picture), which may help explain why control was only fair with many of the treatments containing herbicides with this mechanism of action. The spring barley crop was very competitive in this study and no treatment had a grain yield significantly different from the nontreated check.

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		13-Jun-13		24-Jul-13	28-Aug-13
	Rate	Crop injury	Mayweed control	Mayweed control	Grain yield
Treatment	oz/a	---------- % ----------			tons/a
Widematch	16	0	63	93	2.80
Huskie	11	4	87	95	3.00
2,4-D ester 4lb	8				
AMS	24.3				
Starane Flex	13.6	0	50	82	3.10
Starane Flex	13.6	4	60	77	2.90
2,4-D ester 4lb	8				
Starane Flex	13.6	0	60	85	3.10
MCPA ester	11.9				
Starane Flex	13.6	1	53	81	3.10
Affinity BroadSpec	0.4				
NIS	0.25% v/v				
Starane Flex	13.6	1	53	90	3.10
Bronate Advanced	12.8				
Huskie	11	0	69	86	3.10
NIS	0.25% v/v				
AMS	16				
Affinity Broadspec	0.4	0	83	72	3.10
2,4-D ester 4lb	8				
NIS	0.25% v/v				
Orion	17	0	47	78	3.00
GF-2686	0.71	0	50	77	3.30
NIS	0.25% v/v				
Nontreated check		0	0	0	3.10
LSD (5%)*		4	20	12	0.43

*Treatment differences less than the LSD value are not considered significant because we do not feel confident that the difference is due to the treatment rather than to experimental error or random variation associated with the experiment.