

Spring Applied Herbicides on Creeping Red Fescue May , 2006

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The following discusses treatments that are not registered for use and the researchers involved do not recommend their use. Use of these products is entirely at the risk of the producer or company involved.

Broadleaved herbicides currently registered for spring application on established creeping red fescue for seed production include Ally, Attain, Banvel II, Banvel II+2,4-D, Lontrel, MCPA, Prestige, 2,4-D and Refine Extra. The graminicides Achieve L, Assure II, Poast Ultra and Venture are registered for grassy weed control in established creeping red fescue seed crops. Products such as Curtail M, Frontline, Spectrum, Trophy and Unity are not registered but show potential for use. Quinclorac (the old Accord) applied alone or with a tank mix of Refine Extra to established creeping red fescue in the spring caused seed yield losses and reduced germination.

Although there a number of products registered or products showing potential for registration on creeping red fescue, the weed control with these products is sometimes different in grass seed crops than in annual crops. For instance, Canada thistle control can be very poor when herbicides are applied prior to the shot blade stage of fescue (photo 1).



Photo 1 Lontrel applied prior to shot blade stage of creeping red fescue (left of flag)
Lontrel applied at heading stage of creeping red fescue (right of flag).

In research trials, Lontrel and Refine Extra applied during the heading stage (mid-June) provided superior Canada thistle control than when applied prior to the shot blade stage (3rd week of May). Neither Lontrel nor Refine Extra reduced seed yields or germination when applied at the heading stage in four different trials. Ally reduced yields and affected germination in 1 of 3 years when applied after the shot blade stage. Late applications of herbicides containing 2,4-D or MCPA on creeping red fescue should also be avoided as shown in trial results from Beaverlodge (Table 1). Refine Extra and Lontrel appear to have a wider window of application on creeping red fescue than other herbicides although more work must be conducted to ensure these products are in fact safe for later applications. The best solution is to control Canada thistle prior to establishing grass seed crops.

Table 1. Effect of 2,4-D ester 600 at 400 ml/acre on creeping red fescue seed yields applied at various growth stages (Elliot 1968).

STAGE OF CREEPING RED FESCUE	SEED YIELD Kg/ha	YIELD % Of Check
Check	1001	100
2% Heading	683	68
100% Heading	706	71
5% Flowering	701	70
50% Flowering	587	59
90% Flowering	444	44
50% Flowering	533	53
20% Soft Dough	656	66
25% Hard Dough	1060	106
50% Hard Dough	1012	101

Cleavers is a troublesome weed in creeping red fescue seed stands in that it can emerge at various times throughout the spring or not emerge at all, depending on the year. Several August spraying trials on clip year fescue fields with high infestation levels of cleavers have shown there is little benefit to spraying in the fall. Cleavers did not emerge the following year in any of the treatments including the check even though the plots were heavily infested with cleavers the previous year.



Photo 2 Cleavers in clip year fescue.

Control of cleavers in creeping red fescue with spring herbicide applications has been inconsistent. In the first year of a study, fluroxypyr alone (component of Attain, Prestige and Trophy) was applied prior to the shot blade stage and also at the heading stage of creeping red fescue. The application prior to the shot blade stage resulted in poor cleavers control while the application at the heading stage provided excellent control. In another trial the following year, cleavers control was similar at both growth stages of the fescue. As is the case with Refine Extra and Lontrel, fluroxypyr alone has yet to cause a seed yield loss when applied at the heading stage of creeping red fescue in our research trials (Table 2). Although these three products should be

used at or prior to the shot blade stage of creeping red fescue, they may have a wider window of application than other broadleaf herbicides.

Table 2. Effects of early and late applications of herbicides on seed yields (kg/ha) of established creeping red fescue.

Herbicide	Beaverlodge 1999		Beaverlodge 2000		Beaverlodge 2001		Spirit River 2002		Ellerslie 2003	
	Shot Blade	Heading	Shot Blade	Heading	Shot Blade	Heading	Shot Blade	Heading	Shot Blade	Heading
Refine Extra	1306	1255	1433	1398	845	702	820	820	732	839
Lontrel	1368	1286	1403	1398	812	830				
Fluroxypyr*	1310	1318	1420	1442	752	740	915	868	768	805
Ally	1341	1236	1330	1399	772	406**				
Check	1157		1404		810		911		818	
CV%	6.7		8.5		10.4		11.5		13.4	
LSD.05	NS		NS		114		NS		NS	

*Attain A, Prestige A or Trophy A

**Significantly different from the check yield.

In weed free stands of creeping red fescue at Beaverlodge, no visual injury was observed from either Assure or Venture applied at the shot blade or headed stage of creeping red fescue. Creeping red fescue seed yield, germination and 1000 kwt from plots where Assure or Venture were applied were not significantly different from those obtained from check plots (Table 3).

Table 3. Effects of early and late applications of Assure and Venture on seed yields (kg/ha) of established creeping red fescue.

Herbicide	Beaverlodge 2000		Beaverlodge 2001		Beaverlodge 2002	
	Shot Blade	Heading	Shot Blade	Heading	Shot Blade	Heading
Assure	1417	1282	652	709	685	685
Venture	1349	1285	705	747	738	725
Check	1405		737		693	
CV%	8.4		12.0		10.3	
LSD.05	NS*		NS*		NS*	

*Not significantly different from the check yield.

Further studies must be conducted to verify this information so that confident recommendations can be made as to when creeping red fescue can be safely sprayed with herbicides for controlling cleavers and Canada thistle.