

Clearcast for Cool Season Grass Seedhead Suppression

Introduction

Seasonal management of cool season grasses in rights-of-way includes mowing and herbicide applications to meet safety and aesthetic requirements. Application of plant growth regulators (PGRs) to suppress seedhead development and growth can reduce the number of time consuming and costly mowings. Some herbicides also have seedhead suppression effects, depending on the rate and timing of application. However, these products can injure the turf causing discoloration, which is undesirable but in many cases is temporary.

The cool season grasses may have their growth suppressed but weeds like johnsongrass may continue to grow and require additional spraying or mowing. The location of bodies of water are also a factor when spraying as some herbicides have label restrictions on how close to water one can spray. Milestone, Plateau, and Powerline are labeled for application to non-irrigation ditchbanks while Clearcast is labeled for aquatic and terrestrial uses. Plateau (imazapic) at 8 to 12 fl oz / acre is required to control johnsongrass which is enough to severely damage or kill tall fescue. To control seedling johnsongrass 16 fl oz / acre of Clearcast (imazamox) are called for while 32 to 64 fl oz are needed to control rhizome johnsongrass. Can Clearcast be used to suppress cool season grass seedhead growth at rates high enough to also control johnsongrass?

Materials and Methods

The trial was established on a site in Fayette County. Six herbicide treatments were arranged in a randomized complete block design with 4 reps. Plots were 10 ft x 30 ft with running unsprayed checks between each of the plots. All treatments included methylated seed oil (MSO) at 1% v/v and were sprayed April 1, 2009 at 20 gallons/acre. The tall fescue was 6 to 8 inches tall at application. All treatments included Milestone VM (aminopyralid) at 7 fl oz / acre to expand the range of weed species controlled (Table 1). Visual percent seedhead suppression was assessed by comparison to the running check strips 40 (5/11/2009) and 63 (6/3/2009) days after treatment (DAT). Tall fescue color was assessed by comparison to the running check strips 14 (4/15/2009), 40, and 63 DAT. The color rating ranges from 0 (dead) to 9 (full green). Data were analyzed using ARM software and treatment means were compared using Fisher's LSD at $p = 0.05$.

Results

All the treatments suppressed tall fescue seedhead growth 97 to 99% 40 and 63 DAT. The Clearcast at 32 fl oz / acre treatment had lower color ratings than the least damaged treatments 14 and 63 DAT. The lower rates of Clearcast (8 and 16 fl oz / acre) had color ratings the same as the Stronghold and Plateau at 2 fl oz / acre treatments 63 DAT. All the treatments except Plateau at 2 fl oz / acre suppressed bluegrass seedhead growth at least 90% 63 DAT. The Stronghold and Clearcast treatments suppressed orchard grass seedhead growth at least 85% 63 DAT. Clearcast should be considered for inclusion in roadside vegetation management programs.

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Table 1. Treatments and Results for Clearcast Seedhead Suppression Trial

Trt. No.	Product Name	Rate	Rate Unit	Tall Fescue Color (1-9)		Tall Fescue Color (1-9)		Tall Fescue % Seedhead Suppression		Tall Fescue % Seedhead Suppression		Bluegrass % Seedhead Suppression		Orchard Grass % Seedhead Suppression						
				14 DAT	40 DAT	63 DAT	40 DAT	63 DAT	63 DAT	63 DAT										
1	Plateau	4	FL OZ/A	6.3	5.5	6.8	99	98	90	76	VM	7	FL OZ/A	6.3	5.5	6.8	99	98	90	76
	Milestone	7	FL OZ/A	6.3	5.5	6.8	99	98	90	76										
2	Plateau	2	FL OZ/A	6.5	7.0	8.0	97	99	64	57	VM	7	FL OZ/A	6.5	7.0	8.0	97	99	64	57
	Milestone	7	FL OZ/A	6.5	7.0	8.0	97	99	64	57										
3	Stronghold	16	FL OZ/A	5.8	6.0	7.8	99	99	90	85	VM	1.5	FL OZ/A	5.8	6.0	7.8	99	99	90	85
	Arsenal Powerline	7	FL OZ/A																	
	Milestone	7	FL OZ/A																	
4	Clearcast	8	FL OZ/A	6.5	5.3	8.0	99	99	97	85	VM	7	FL OZ/A	6.5	5.3	8.0	99	99	97	85
	Milestone	7	FL OZ/A	6.5	5.3	8.0	99	99	97	85										
5	Clearcast	16	FL OZ/A	6.3	5.0	7.3	97	99	99	99	VM	7	FL OZ/A	6.3	5.0	7.3	97	99	99	99
	Milestone	7	FL OZ/A	6.3	5.0	7.3	97	99	99	99										
6	Clearcast	32	FL OZ/A	5.5	5.0	6.3	99	99	99	99	VM	7	FL OZ/A	5.5	5.0	6.3	99	99	99	99
	Milestone	7	FL OZ/A	5.5	5.0	6.3	99	99	99	99										

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All herbicide treatments included 1% MSO v/v.

* Means within column followed by the same letter are not different according to Fisher's Protected LSD at $P < 0.05$.

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