

Evaluation of Olympus[®] for Cheatgrass Control in Central Oregon Rangelands, 2008-2009

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Abstract

Annual grassy weeds such as cheatgrass (*Bromus tectorum*) are capable of crowding out bunchgrasses, leaving rangelands with less feed for cattle and more prone to devastating fires and soil erosion. Olympus[®] herbicide was applied November 26, 2008. Olympus (propoxycarbazone) plus Sencor[®] (metribuzin) provided 99 percent cheatgrass control. This was similar to the industry standard, Plateau[®] (imazapic). Sencor applied alone or in combination with Solution 32 provided 87 percent control.

Introduction

Medusahead (*Taeniatherum caput-medusae*) is a Category B noxious weed on the Oregon and Jefferson County Weed Control List for containment. It is predominant on millions of acres of semi-arid rangeland in the Pacific Northwest. It is extremely competitive, crowding out all other vegetation on infested rangeland, including such undesirable species as cheatgrass or downy brome (*Bromus tectorum*). Medusahead and cheatgrass often out-compete bunch grasses that stabilize the soil and provide feed for cattle and other grass feeders. In addition, medusahead and cheatgrass dramatically increase the fuel load, creating hotter, more destructive range and forest fires.

Methods and Materials

Olympus (propoxycarbazone) alone was applied at three rates November 26, 2008. It was also applied in combination with Sencor (metribuzin) or Solution 32. These treatments were compared to the industry standard Plateau (imazapic) and an untreated check. Treatments were applied across three replications in randomized complete blocks with a CO₂-pressurized hand-held boom sprayer outfitted with TeeJet 8002 nozzles on a 9-ft boom operated at 40 psi and applying 20 gal/acre. Plots were evaluated for percent control of cheatgrass on June 2, 2009. Where did this experiment take place?

Results and Discussion

Fall-applied Olympus plus Sencor provided 99 percent control of cheatgrass, similar to results with Plateau (Table 1). Olympus alone or in combination with Solution 32 provided 87 percent control.

Table 1. Percent cheatgrass control evaluated on June 2, 2009 following herbicide application November 26, 2008 location?.

Treatments ¹	Product/acre	Percent cheatgrass control
Olympus	1.22 oz	99 A ²
+ Sencor	4 oz	
Plateau	6 oz	99 a
Olympus	1.22 oz	87 b
+ Solution 32%	32 oz	
Olympus	1.22 oz	87 b
Untreated	----	0 c

¹Olympus = propoxycarbazone 70 DG, Sencor = metribuzin 4 lb ai/gal, Plateau = imazapic 2 lb ai/gal. All treatments included a non-ionic surfactant at 0.25% v/v.

²Mean separation with Least Significant Difference (LSD) at $P \leq 0.05$.