

Data Collection and Fire Modeling Determine Potential for the Use of Plateau^{®1 2} to Establish Fuelbreaks in Cheatgrass-Dominated Rangelands³

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Introduction

Plateau[®] herbicide was applied on recently-burned cheatgrass (*Bromus tectorum*) dominated rangelands near Boise, Idaho, to determine if the application of up to 12 oz ac⁻¹ of Plateau was a viable method to create and maintain firebreaks. Plateau has been used extensively throughout the U.S. to enhance native plant seedings and control cheatgrass. Synergy Resource Solutions, Inc. gathered data to determine biomass production, litter accumulation, and plant height in the study area on June 15 and 16, 2002. Fire behavior at each site was modeled with collected data using BehavePlus fire-modeling program (USFS v. 1.0.0). Modeling predicted that application of Plateau at rates above 6 ounces/acre would effectively reduce *Bromus tectorum* in fuel break areas. Between Plateau treatments, flame height increased slightly at the 12 oz ac⁻¹ rate due to an increase in the number of forbs (broadleaf) species compared to a greater percentage of grass species encouraged at the lower rates of 6 oz ac⁻¹ and 8 oz ac⁻¹. These data indicated that fuel breaks treated with Plateau for cheatgrass control would have lower flame lengths and rates of spread than untreated areas.

Results

Results indicated that areas treated with Plateau had substantially less cheatgrass by weight than the untreated areas, regardless of treatment level. Control treatments had substantially more Sandberg bluegrass. For the evaluated rates, cheatgrass levels

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CAUTION: Pesticides can be injurious to humans, domestic animals, desirable plants, and fish or other wildlife—if they are not handled or applied properly. Use all pesticides selectively and carefully. Follow recommended practices for the disposal of surplus pesticides and pesticide containers.

²The use of trade or firm names in this publication is for reader information and does not imply endorsement by the U.S. Department of Agriculture of any product or service.

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were the same in the 6 oz ac⁻¹ and 8 oz ac⁻¹ treatments, indicating that Plateau at 6 oz ac⁻¹ would be the most cost-effective application rate.

Plots treated with Plateau had a lower flame height and rate of spread than control treatment levels. Fuel modeling data indicated that areas treated with Plateau, regardless of the treatment level, would have a lower rate of spread and flame length than control treatments.

Discussion

These data indicated that Plateau can provide cheatgrass control in areas with high fire risk. Plateau could be used to create fuel breaks around important habitat resources (i.e., native sagebrush communities, Areas of Critical Environmental Concern) in fire-prone areas. Incorporating Plateau into management strategies could protect habitat for sage grouse and other species of concern. Potential Plateau application sites include areas along maintained roads and in or around maintained fire breaks. Plateau provides an opportunity to reduce the \$542 million spent by federal agencies to control wildland fires in 2001, reduce danger to life and property, and reduce destruction of wildlife and plant habitats. Finally, Plateau herbicide can be incorporated into land management plans and reduces the risk of loss of life, structures, and vegetation in areas of concern by reducing fuel loads.