



Short-Term Effect of Six Herbicides on Sandberg Bluegrass (*Poa secunda*) Following Wildfire

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On many degraded sagebrush rangelands, cheatgrass is often abundant and Sandberg bluegrass (*Poa secunda*) is often the only perennial grass in the herbaceous understory. Following wildfire, Sandberg bluegrass is often widespread but at a density too low to prevent cheatgrass from assuming ecological dominance. Chemical control of cheatgrass is possible but the effect of many herbicides on Sandberg bluegrass, a desired non-target species, is largely unknown. Six herbicides (glyphosate, imazapic, metribuzin, propoxycarbazone, sulfometuron, and sulfosulfuron), alone or in combination or at several rates, were applied to a sagebrush rangeland the spring after a wildfire when Sandberg bluegrass was at two growth stages (1-3 leaf and 8-10 leaf). We assessed the short-term effect of each treatment on Sandberg bluegrass by measuring the percentage of plants with seed stalks and percent stunting. Compared to an untreated control, most early treatments (1-3 leaf stage) had a moderate to large reduction in seed stalk production. The exceptions were propoxycarbazone with metribuzin and metribuzin alone. Seed stalk presence for treatments at the 8-10 leaf stage was similar to the control for all treatments. Sandberg bluegrass treated at the 1-3 leaf stage generally had moderate to severe stunting. For treatments applied at the 8-10 leaf stage, percent stunting was always less than the early application and often similar to the control. These results suggest that most of the herbicides used in this study will have adverse short term effect on Sandberg's bluegrass if applied shortly after green-up.

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