Response of saltcedar and native grasses to five years of mowing or herbicide application.
Alex Ogg, Steve Christy and Mike Wille.

Abstract:
A site heavily infested with saltcedar near Manderson, WY was burned in March of 2001 and then mowed with a brush hog to remove standing burnt stems. The area was disked twice and seeded in April 2001with desirable grasses and forbs. Exceptionally dry conditions prevented the establishment of desirable species. However, there was vigorous regrowth of the saltcedar in 2001. The area was again mowed in October 2001 to remove the new stems. On July 30, 2002, long-term field plots were established to compare mowing to herbicide application for the control of saltcedar and response of native grasses. Individual plots were 20 by 30 feet and each treatment, mowing or herbicide application, was replicated four times. The percent cover of Inland saltgrass (*Distichlis spicata*) and alkali sacaton (*Sporobolus airoides*) was estimated visually before treatments were applied. A hand-held power brush cutter was used to mow the saltcedar to within 2 to 4 inches of the soil surface. Plots were mowed once in 2002, twice in 2003 and once in 2004, 2005 and 2006. Pasturegard™ (triclopyr + fluroxypyr) was applied at 2 qts/acre plus 1/4% nonionic surfactant in 15 gallons total solution with a held-held boom sprayer as the herbicide treatment. Pasturegard was applied annually in late July thereafter until all saltcedar was killed. In July 2002, Inland saltgrass cover varied from 3 to 20% and alkali sacaton cover varied from 1 to 20% in the plots. Saltcedar populations varied from 50 to 200 per plot in July 2002. In July 2004, after two annual applications of Pasturegard, saltcedar populations were reduced 98% compared to annual mowing. There was no saltcedar in the Pasturegard plots in 2005 or 2006. After 3 years of mowing, saltcedar populations were reduced about 50%, and after 4 years of mowing they were reduced about 60%. In 2005 and 2006, saltcedar in the mowed plots was noticeably reduced in vigor. Based on the results of this study, annual mowing is relatively ineffective method for eliminating saltcedar, whereas 2 or 3 annual applications of herbicide appears highly effective for killing saltcedar. Between 2002 and 2006 there was a four-fold increase in Inland saltgrass in both treatments. Alkali sacaton increased two-fold in the mowed plots and three-fold in the herbicide plots.