

## Fusilade for the Control of Filaree

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Annual filarees in southern California wildlands germinate at very high densities after wildfire and other disturbances. They emerge much sooner than most native species, making re-establishment of natives difficult. In plant communities such as coastal sage scrub the natives are predominantly forbs and shrubs, consequently the potential to broadcast spray a selective herbicide to control filaree seemed low. Observations in a desert field study showed that fluazifop applied for grass control also controlled redstem filaree (*Erodium cicutarium*). Studies in Australia have shown *Erodium* species to be sensitive to a grass-specific herbicide not available in the U.S.

Plots were established at two sites in San Diego County, one dominated by broadstem filaree (*Erodium botrys*) and the other dominated by redstem filaree. Multiple rates of two grass-specific herbicides, fluazifop and clethodim, were applied in a single application. Two rates of glyphosate were also applied for comparison. Visual damage ratings performed at 2-, 4- and 8-week intervals after application indicate that redstem filaree is more susceptible to fluazifop than broadstem filaree. Also, the damage ratings decreased at the 8-week intervals for both species compared to the 2-week interval suggesting that regrowth occurred.

Percent cover readings were taken near peak flowering time at each site. Initial results show that 0.315 kg ai ha<sup>-1</sup> of fluazifop decreased the percent cover of redstem filaree from 40% mean cover in the control to 30% mean cover. When the application rate was increased to 0.630 kg ai ha<sup>-1</sup>, which is 1.5 times the maximum label rate, the mean percent cover of redstem filaree decreased to 5%. The mean percent cover of broadleaf filaree did not decrease significantly at label rates, and only decreased from 64% in the control to 41% mean cover at an application of 1.260 kg ai ha<sup>-1</sup>, which is 3 times the maximum label rate.

Clethodim did very little damage to either species according to visual damage assessments and did not decrease the percent cover of either filaree species.

Fluazifop may be useful for suppression of redstem filaree in wildland restoration scenarios, however broadstem filaree is much less susceptible. However, season-long control was not achieved using current label rates. Multiple applications may provide better control of both species tested. Plots will be resprayed and remeasured during the 2010 growing season.