

This WEED REPORT does not constitute a formal recommendation. When using herbicides always read the label, and when in doubt consult your farm advisor or county agent.

This WEED REPORT is an excerpt from the book *Weed Control in Natural Areas in the Western United States* and is available wholesale through the UC Weed Research & Information Center ([wric.ucdavis.edu](http://wric.ucdavis.edu)) or retail through the Western Society of Weed Science ([wsweedscience.org](http://wsweedscience.org)) or the California Invasive Species Council ([cal-ipc.org](http://cal-ipc.org)).

*Pennisetum setaceum* (Forssk.) Chiov.

## Crimson fountaingrass

**Family:** Poaceae

**Range:** Oregon, California, Arizona, New Mexico, and Colorado.

**Habitat:** Disturbed sites, roadsides, urban places, but also does well on undisturbed coastal dunes, coastal sage scrub, warm desert shrubland and canyons. Grows best in areas with mild winters that receive some summer moisture. Plants tolerate periods of drought, light shade, and most soil types, but do not survive prolonged periods of freezing temperatures. Crimson fountaingrass can grow in rock crevices and pavement cracks, but does not tolerate saline conditions.

**Origin:** Native to northeastern Africa and western Asia. Crimson fountaingrass is a common landscape ornamental and is often cultivated as an annual in cold winter areas. However, some cultivars, such as 'Rubrum' and 'Eaton Canyon,' usually do not produce viable seed.

**Impacts:** In some desert regions, crimson fountaingrass is contributing to the type conversion of shrubland to grassland by facilitating the occurrence of periodic fire, which usually kills the shrubs. Crimson fountaingrass is also a major noxious weed in Hawaii.

**California Invasive Plant Council (Cal-IPC) Inventory:** Moderate Invasiveness

Crimson fountaingrass is a fire-adapted warm-climate tufted perennial to 4 ft tall. The leaves are narrow, 8 to 13 inches long, folded or flat, glabrous to sparsely short-hairy, with a pronounced midvein on the underside. The ligules are 1 mm long and consist of a fringe of white hairs. The collar margins are also ciliate with long white hairs.

The inflorescences are showy, purplish, spike-like panicles that are lax or slightly drooping. The bristly panicles are 4 to 12 inches long, mostly 1.5 to 2 inches wide, with spikelets 4 to 7 mm long. The bristles are purplish, numerous, unequal, straight, and 0.75 to 1.5 inches long. Plants reproduce by seed, which are developed asexually by apomixis and, to a smaller degree, sexually by pollination. Spikelets with bristles disperse in late spring with wind, or more likely by clinging to the fur, feathers, and feet of animals. In Hawaii, seeds appear to survive for about 6 years in the soil seedbank. Individual plants may live up to 20 years or more.

### NON-CHEMICAL CONTROL

#### Mechanical (pulling, cutting, disking)

Hand removal may be an effective method of controlling crimson fountaingrass because of the bunchgrass nature of the plant. Small infestations can be removed by uprooting or cutting with weed eaters. A heavy tool such as a pick, shovel or mattock may be needed to uproot large plants with a basal diameter over 6 inches. If inflorescences are present, they should be cut and placed in plastic bags, then destroyed to prevent spread of seeds. Removal by hand may need to be repeated several times a year at one to 2 month intervals. Seedlings will need to be monitored and removed thereafter.

Mowing is not an effective method for crimson fountaingrass control.

Tillage is not practical in most areas where crimson fountaingrass grows and is not likely to be successful as a control option.

#### Cultural

Susceptibility of *Pennisetum setaceum* to grazing/browsing damage is typically low, but in Hawaii cattle were shown to eat crimson fountaingrass when no other grasses were available.



	Crimson fountaingrass recovers quickly after fire, and the population may increase in density after a burn.
<b>Biological</b>	There are no biological control agents available for crimson fountaingrass, as the species is still a widely planted ornamental.

**CHEMICAL CONTROL**

The following specific use information is based on published papers and reports by researchers and land managers. Other trade names may be available, and other compounds also are labeled for this weed. Directions for use may vary between brands; see label before use. Herbicides are listed by mode of action and then alphabetically. The order of herbicide listing is not reflective of the order of efficacy or preference.

**LIPID SYNTHESIS INHIBITORS**

Fluazifop <i>Fusilade</i>	<b>Rate:</b> 1 to 1.5 oz product/acre (4 to 6 oz a.e./acre) <b>Timing:</b> Postemergence to rapidly growing plants. <b>Remarks:</b> Treatments may need to be repeated during a single season. Fluazifop is only effective on grass species, both annual and perennial. Use a non-ionic surfactant or crop oil to enhance activity. Do not apply to water-stressed plants.
Sethoxydim <i>Poast</i>	<b>Rate:</b> 1 to 2.5 pt product/acre (3 to 7.5 oz a.i./acre) <b>Timing:</b> Postemergence to rapidly growing plants. Control is fastest during warm weather and when weeds are small. <b>Remarks:</b> Treatments may need to be repeated during a single season. Sethoxydim is only effective on grass species. It is also possible that other grass-selective herbicides, including clethodim, will be effective for the control of crimson fountaingrass, but no information is available. Use of a crop oil concentrate enhances activity.

**AROMATIC AMINO ACID INHIBITORS**

Glyphosate <i>Roundup, Accord XRT II, and others</i>	<b>Rate:</b> Broadcast foliar treatment: 1 to 4 qt product ( <i>Roundup ProMax</i> )/acre (1.1 to 4.5 lb a.e./acre). Spot treatment: 1 to 2% v/v solution. Wiper treatment: 33 to 50% of concentrated product. <b>Timing:</b> Postemergence to rapidly growing plants from mid-summer to fall. Best kill of rhizomes occurs when applications are made at the flowering stage. <b>Remarks:</b> Glyphosate is a nonselective herbicide and has no soil residual activity. A wiper applicator can provide a higher level of selectivity. Control can be enhanced with the addition of ammonium sulfate. Glyphosate is not as consistent as other herbicides for control of crimson fountaingrass.
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**BRANCHED-CHAIN AMINO ACID INHIBITORS**

Imazapyr <i>Arsenal, Habitat, Stalker, Chopper, Polaris</i>	<b>Rate:</b> 4 to 6 pt product/acre (1 to 1.5 lb a.e./acre) <b>Timing:</b> Preemergence or postemergence to rapidly growing plants. <b>Remarks:</b> Imazapyr is a broad-spectrum herbicide with fairly long soil residual activity. Treatment recommendations on the label are for <i>Pennisetum villosum</i> , but it is expected that similar results should occur with <i>Pennisetum setaceum</i> . The higher rates should be used for heavy or well-established infestations.
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**PHOTOSYNTHETIC INHIBITORS**

Hexazinone <i>Velpar L</i>	<b>Rate:</b> 1.25 to 2.5 gal product/acre (2.5 to 5 lb a.i./acre) <b>Timing:</b> Preemergence or postemergence to rapidly growing plants. <b>Remarks:</b> Hexazinone is a broad-spectrum herbicide that is mobile in the soil and has long soil residual activity. It should not be used in areas with a shallow water table. Hexazinone is best used in areas with high densities of fountaingrass, medium to shallow soils, away from watercourses, and away from trees. High rates of hexazinone can create bare ground, so only use high rates in spot treatments.
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**RECOMMENDED CITATION:** DiTomaso, J.M., G.B. Kyser et al. 2013. *Weed Control in Natural Areas in the Western United States*. Weed Research and Information Center, University of California. 544 pp.