Invasive Plant Spotlight: *Stipa tenuissima* (Mexican feathergrass)

Have you seen this deceptively beautiful plant in your neighborhood, someone’s yard, a parking lot, or running along a sidewalk? It seems like a great drought tolerant plant...

**So what’s the problem?**

*Stipa tenuissima*, also known as Mexican feathergrass or *Nassella tenuissima*, is an emerging invasive plant in California. An invasive plant is an introduced species that out-competes native plants and wildlife for space and resources, causing harm — and is often difficult to remove or control.

*S. tenuissima* produces thousands of seeds, which are dispersed by wind, water, contaminated soil, automobiles and animal droppings. The seed bank can persist for four years, and since the plant commonly self sows it will likely spread out of its designated place in the garden. In addition to being a landscaping headache, *S. tenuissima* is an extremely vigorous plant. In Australia and New Zealand, it forms pure, dense stands, preventing native plants from establishing. This plant can crowd out pasture species as well as native grasses in coastal areas. With a high fiber content and low nutritional value, it is unpalatable to cattle and forms indigestible balls in the stomach of livestock.

Why is it not on the California Invasive Plant Council (Cal-IPC) Inventory?

To be on the Cal-IPC Inventory, a plant must already cause ecological or economic harm in California. Because *S. tenuissima* is an emerging invasive species, it is just starting to show signs of being invasive and spreading into natural areas. There is not currently enough evidence that this grass has invaded wildlands to merit inclusion on the Cal-IPC Inventory. However, based on the results of a 95% accurate plant risk assessment tool (PRE tool developed at University of Washington and University of California at Davis, to predict invasive risk in ornamental plants on a regional basis), *S. tenuissima* was deemed to pose a high invasive risk in a majority of our state’s climate zones. Being PRE-rated as “high risk” is a key criteria for addition to PlantRight’s list of priority invasive plants.

Stopping the sale of this plant before it escapes onto our wild lands and open spaces saves taxpayer money on costly removal efforts, while protecting our natural areas and native species.

Fortunately, there are many beautiful, hardy, non-invasive alternatives to choose instead of this invasive plant. A few of these alternatives are described in detail on the next page.

Sources:

Anderson, F (2006); European and Mediterranean Plant Protection Organization; High Country Gardens [www.highcountrygardens.com](http://www.highcountrygardens.com); Learn 2 Grow Gardening Guides; Milton, S. J. (2004); Moretto & Distel (1998); Pacific Island Ecosystems at Risk (PIER); PlantRight [www.plantright.org](http://www.plantright.org); San Marcos Growers [www.smgrowers.com](http://www.smgrowers.com); Sydney Weeds Committees; Weedbusters.
**Suggested Alternatives**

Below are five of the many non-invasive grasses that can be used instead of *Stipa tenuissima*. Go to PlantRight.org for more alternatives.

**Guide to Plant Care Symbols**

- **Full Sun**
- **Partial Sun**
- **Medium water**
- **Low water**
- **Very low water**
- **CA native or cultivar**

**Bouteloua gracilis ‘Blonde Ambition’ | blue grama grass**

A long-lived, warm season grass that grows to the same size as *Stipa tenuissima*. Drought tolerant, has attractive flower heads, can be planted en masse, and is cold hardy. Grows in a wide range of soil types and is terrific for low maintenance landscapes. For best aesthetic in the spring, cut back in the winter.

**Sporobolus airoides | alkali sacaton**

Alkali sacaton is a graceful, fine-textured, clumping grass that is both tough and good-looking. It is deep-rooted and drought-tolerant. This species is excellent for massing in hot, dry areas and can tolerate a wide range of soil conditions. A robust warm-season grass that flowers for many months, beginning in June. Can provide wildlife habitat and is often used by animals for forage, cover and nesting. Its seeds are relished by birds.

**Muhlenbergia dubia | Mexican deer grass**

A great-looking grass that is similar in appearance but about half the size of the more commonly used California deer grass (*Muhlenbergia rigens*). A good choice for mass planting, smaller gardens, and containers. Rarely browsed by deer. Little supplemental irrigation is required, but it can handle more regular irrigation if soil drains well. Blooms in mid-summer with flower spikes about 3 feet tall.

**Aristida purpurea | purple three-awn**

This California native looks so similar to *Stipa tenuissima* when its turns from purple to a light straw color that you may mistake it for the invasive plant. Thrives in sunny, dry locations with minimal water. Achieves the same fine-textured breezy look as Mexican feathergrass. Purplish awns reflect light beautifully. Seeds can stick to socks and animals, so plant away from paths. Can reseed in the garden but not too aggressively. Small birds like juncos will eat the seeds.

**Sesleria autumnalis | autumn moor grass**

A cool season, clump-forming ornamental grass which typically grows 8-12" tall. Narrow flower spikes rise above the foliage clump in summer, bringing its height to 18" tall. In autumn, flowers give way to silvery-white inflorescences that move gracefully in the wind. Attractive, narrow, yellow-green foliage (to 3/16" wide). Frost hardy. Does not reseed in the garden. Mass under trees or in full sun as a ground cover. Great for a natural meadow look.