



Green Fountain Grass

(Pennisetum setaceum)

This problem for our environment is pretty, but pretty bad

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INTRODUCTION

When we hear that a plant is a weed, we often envision something unpleasant to see, touch or have nearby, such as a stinging nettle or some thistles. If that were true, weed control would be less challenging than it is – everyone would want to remove the pests!

The unfortunate fact is, a plant need not be ugly to pose a big problem. Some of our most environmentally destructive weeds were actually introduced as lovely landscape plants. Only after they have become overly successful, crowding out members of the native plant community, does their negative potential become clear.

One of those pest plants is green fountain grass, *Pennisetum setaceum*. It has thrived throughout the world wherever it has been introduced. In the Western United States, its drought

tolerance gives it an advantage over less tolerant native or introduced plants.

DESCRIPTION

This clumping grass produces tall (up to 5 feet) flower plumes.



Pennisetum setaceum can invade urban and rural landscapes. Photo: A. O’Callaghan

These inflorescences appear white to nearly purple and stand above the foliage. Each plume is capable of generating large volumes of seed. The seeds are not only numerous, but they also remain viable in the soil for several years. The abundance of seeds permitted the plant to spread throughout the Southwest.

Individual clumps can be 3 feet across and tall. These clumps can form dense stands that crowd out native plants.



The inflorescences (flower stalks) of the weed (a) and the sterile plant (b) can be similar, although the sterile hybrids' tend to be redder. Photos: A. O'Callaghan



SOURCES OF CONFUSION

Green fountain grass, the weed, is also known as crimson and purple fountain grass, which may be confusing, since the non-weedy sterile hybrids are called by these same names. This is a good example of the need to use scientific nomenclature.



A massive infestation of green fountain grass. Lava flow with fountain grass (*Pennisetum setaceum*) photographed above Kailua-Kona Airport, Kailua-Kona, Hawai'i by Eric Guinther. Accessed 8/26/2014

http://commons.wikimedia.org/wiki/File:Pennisetum_setaceum-Guinther.jpg

The weed is *Pennisetum setaceum*. The sterile hybrids have the scientific name plus the indication that it has been hybridized: *P. setaceum* var. *rubrum*. The sterile hybrids may be planted.

PROBLEMS IT CAUSES

Horticulturists originally promoted the use of this African grass, believing it was sterile and would not invade neighboring areas.

Now, however, it is recognized, not as a lovely landscape plant, but as a serious environmental threat. It is considered a problem plant in Arizona and California. It is included in the noxious weed lists of Nevada and Hawaii. This means that it poses such a threat to the environment that it cannot be sold or installed within these states.



The **sterile** hybrid *P. setaceum* var. *rubrum*. Photo: A. O'Callaghan

P. setaceum appears wherever it can find water – washes, the banks of the Colorado River, the shores of Lake Mead, along sidewalks, even in highway medians.

Green fountain grass has a faster growth rate than native grasses, hence it can out-compete them. If it is not controlled in wild areas, it can become a dominant species within three years of its first appearance, destroying native plant habitats. It is not good forage for grazing animals who then suffer for lack of quality browsing material.

Another problem is that it is well adapted to fire. Many desert native plants are generally unable to tolerate fires, but fountain grass can. After an intense blaze, there can be a significant increase in its population, at the expense of many indigenous plants. This can have a negative impact on ground-nesting birds and other ground dwellers.

HOW TO CONTROL

The green fountain grass found in most residential landscapes is usually one, or at most, a few plants. Hand pulling is one effective way to remove them. If a plant has been established in a site for a long time, however, its root system can be extensive. Pulling should be repeated every couple of months to remove any new shoots. *Green fountain grass roots extend a foot deep.*

Where the plant has spread into a large stand in a landscape, hand pulling should be the first line of control. If the entire population cannot be removed from a large infestation, at least suppress seeding by



mowing. Selective herbicides for grassy weed control can be effective.

Glyphosate is another option for large infestations, but it is not selective and can damage nontarget plants. In a residential landscape, it is a good idea to use herbicides as a last resort.

REPLACEMENT PLANTS

Gardeners have been using green fountain grass in landscapes because it is attractive and easy to maintain. For this reason, some people are hesitant about removing it. Fortunately, many other beautiful, low-maintenance, and low-water-use flowering grasses are available to homeowners. The following are a few possible choices.

One is a truly sterile cousin of green fountain grass – red fountain grass (*P. setaceum* var. *rubrum*). Some varieties produce nearly purple foliage.



Pennisetum purpureum leaves are deep crimson. Photo: A. O'Callaghan

Other *Pennisetum* species, such as *P. purpureum*, are available and do not pose a threat to the environment.

Some of these alternatives are native to the Southwest and have not been found to demonstrate invasiveness.

Muhlenbergia is a genus of clumping grasses that produce striking floral displays. A cultivar of deer grass, *Muhlenbergia capillaris* 'Regal Mist' is beautiful and easy to maintain. Its flowers create a lovely crimson haze around the plant. A white-flowered species of *Muhlenbergia* is *M. emersleyi*.



Muhlenbergia emersleyi flowers in late summer to fall. Photo: A. O'Callaghan

Species of *Sporobolus* are clumping grasses that create attractive masses of inflorescences floating above the foliage in the fall. (See photo on Page 6.)

Replacements need not be limited to grasses (See Table 1.) Many low-growing plants produce flowers and grass-like leaves.



Nolina lindheimeriana, while not a true grass, is known as beargrass. Photo: Mountain States Wholesale Nursery adapted by A. O'Callaghan

Several members of the genus *Nolina* (beargrass) also produce grass-like, flowering foliage and flowering plumes.

The foliage of *Gaura lindheimeri* is slender and grass-like. It produces pink or white flowers in profusion.

CONCLUSIONS

Infestations of green fountain grass should be removed as soon as possible.

Hand weed or hoe if feasible. This plant is also susceptible to several chemical control measures. There are many easily maintained plants with a similar habit and equally showy floral displays (See Table 1). Whatever replacement you choose, it is important to replace green fountain grass, not only because it is a noxious, invasive weed, but to be a good environmental citizen.

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Table 1. Suggested replacement plants for green fountain grass in landscapes.

SCIENTIFIC NAME	COMMON NAME	MAXIMUM SIZE	FLOWERING
<i>Hesperaloe parvifolia</i>	Red yucca	4' x 4'	Summer
<i>Gaura lindheimeri</i>	Gaura	5' x 2'	Summer
<i>Muhlenbergia capillaris</i>	'Regal Mist'™	6' x 3'	Fall
<i>Nolina</i> spp.	Beargrass; devil's shoe string	6' x 6'	Late spring
<i>Sporobolus</i> spp.	Dropseed; sacaton	4' x 2'	Spring to fall
<i>Yucca filamentosa</i>	Adam's needle; Spanish bayonet	8' x 3'	Summer



Sporobolus wrightii 'Windbreaker'. Photo: Mountain States Wholesale nursery.

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