



# Fountain Grass

## Taxonomy

Order: Cyperales

Family: Poaceae

Species: *Cenchrus setaceum* (Forsskal) Chiovenda

Synonyms: *Pennisetum setaceum* is a commonly used name for this species

## Summary

A popular ornamental grass of North African origin planted widely in areas with warm, arid climates. Having spread to natural areas from seed dispersal from cultivated plants, it has become invasive in many areas including Bermuda, Hawaii, the southern United States, Australia, Indonesia, southern Europe, southern Africa and parts of the Caribbean. It establishes monocultures in many habitats and threatens rare plant species.



Fountain grass © Forest & Kim Starr

## Biology

Commonly found in deserts, grasslands and disturbed sites such as roadsides. Fountain grass thrives in open spaces, warm temperatures and prefers full sun, but it can tolerate partial shade. It is limited to areas with a median annual rainfall of less than 127 cm and is very aggressive in dry habitats but is outcompeted by other grasses in wet environments. Germination requires natural seasonal disturbance such as seasonal rainfall. It will grow in all soil types but does not tolerate saline conditions. Each plant may produce on average 100 seeds which may remain viable in the soil for 6 years or longer.

## Distribution in Caribbean

Recorded from Turks and Caicos Islands, Guadeloupe and Puerto Rico but likely to be more widespread.



## Pathway of Entry

Natural dispersal: Seeds are easily dispersed by wind, water, animals and vehicles

Intentional dispersal: main pathway for introduction is through the horticultural trade

## Impact

Fountain Grass is a very aggressive plant forming monospecific stands that out-compete native plants in terms of space, water and nutrients. In Hawaii, it dominates areas that formerly supported native grasses such as *Heteropogon contortus* (Poaceae). It becomes extremely inflammable in winter, increasing the intensity and spread of fire, resulting in severe damage to native dry forest species. Fires impact ground nesting birds and terrestrial animals.

## Further Information:

<https://www.cabi.org/isc/datasheet/116202>

EPPO, 2012. Mini data sheet on *Pennisetum setaceum* (Poaceae)



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Fountain Grass ripening seeds© Hardyplants



Fountain Grass spikelet©D. Walters and C. Southwick/Table Grape Weed Disseminule ID/USDA APHIS ITP/Bugwood.org - CC BY-NC 3.0 US



Fountain Grass on Hawaii larva flow  
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### Field Description

*Cenchrus setaceum* is a perennial clump-forming grass. The slender arching leaves are 15-30 cm long and 1-3 mm wide. Their colouration is dependent upon water availability, they are green in winter and brown in summer. Leaf sheaths are usually smooth but often have edges lined with white hairs.

The small flowers (spikelets) grow as dense, cylindrical, bristly clusters, 6-30 cm long and on stalks (culms) that can reach 1.2 m in height. They are typically pink or purple in colour, however, can develop from light green to yellowish-brown under sunny or dry conditions. The fertile spikelets are sessile and pedicelled, and there are 1-3 per fascicle (cluster). Spikelets are 4.5-6.5 mm long and fall entire.

One bristle is noticeably longer than the other bristles, 16-40 mm; the other bristles are 12-26 mm. Inner bristles are plumose.

### Similar Species

*Cenchrus setaceum* is most similar in appearance and most closely related to *C. advena* (= *Pennisetum advena*) and thought to be a hybrid. It usually has a red colouration of the leaves and inflorescences, wider leaf blades without a thickened mid-vein, usually with secondary branching at aerial culm nodes, and the inflorescence structure differs.

It is also similar in appearance to a few other species including: Bull Grass (*Muhlenbergia emersleyi*), native to North America, grows to approximately 1 m tall and has flattened, nodding seed heads as opposed to cylindrical seed heads. Buffel Grass (*Cenchrus ciliaris*) is a smaller grass with branched stems and shorter cylindrical seed heads. Feathertop Grass (*Pennisetum villosum*) has shorter, white seed heads and rhizomatous growth. The latter grasses are all African in origin. None of the similar looking species are as invasive as Fountain Grass.