# Plant Guide

# GIANT SANDREED
## *Calamovilfa gigantea* (Nutt.) Scribn. & Merr.
Plant Symbol = CAGI3

*Contributed by: USDA NRCS Manhattan Plant Materials Center*

Alan Shadow, USDA NRCS Manhattan Plant Materials Center

**Alternate Names**
Big sandreed, big sandreed grass

**Uses**
Giant sandreed is valuable for controlling erosion on deep sands subject to severe wind erosion. It cures well on the stem, thus providing good winter forage for livestock. When grown on sites large enough to be managed as a separate unit it can be hayed or used as reserve for winter forage.

**Status**
Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

**Description**
*General*: Giant sandreed is a robust perennial, native, warm season grass with strong creeping rhizomes. The culms are erect, thick and solid or hollow near the base. Culm height ranges between 1 and 2 meters tall. The leaf blade is 7 to 11 mm wide at the base and rolls inward tapering to a long tip. The leaf sheath is usually glabrous or sometimes pubescent in the vicinity of the ligule. The inflorescence is an open panicle 30 to 65 cm long with lemmas that are villous on their backs.

*Distribution*: For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site. Giant sandreed can be found from southern Utah (north of Kanab, Kane County) to Arizona, east to southwestern Nebraska, Kansas, Oklahoma, and to central Texas.

*Habitat*: A valuable sand binder that is closely related to *Calamovilfa longifolia* of the mid-western states. A valuable species to control erosion on deep sandy soils subjected to severe wind erosion. Will grow in large colonies and dominate a site if properly managed.

**Adaptation**
This species exhibits optimal performance on sandy textured soils.

**Establishment**
Normally this species exhibits weak seedling vigor and slow growth once it has germinated. This species is typically slow to establish from the seedling stage to a mature plant. It tends to put the majority of its resources into root and rhizome development during the seedling stage. Drill seed 2.54 cm deep in sandy soil and shallower in medium textured soils. Drilling into crop stubble improves stand establishment on erosive sites. Species may be sprigged in sand dunes or erosive "blowout" sites.

**Management**
Spring growth of this species begins several days before other warm season grasses in the same locality. This provides an advantage when early forage is desired for livestock species. When grown on large sites that require separate management this species can be hayed or grazed. It provides good winter forage for livestock. Summer grazing should be limited to no more than 50 percent removal of the current year's growth. This will maintain a vigorous

stand of grass, while leaving adequate amounts of mulch for control of wind erosion.

**Pests and Potential Problems**
There are rust fungi that infect or cause disease on both *Calamovilfa* and *Sporobolus.*

**Environmental Concerns**
There are no environmental concerns with this species. Generally, it has reduced seedling vigor and is only adapted to conditions in a sandy soil type environment. It has a very low probability of becoming a weed problem.

**Seeds and Plant Production**
The species is difficult to harvest due to late maturity, seed shatter, and hairy seed units. Combine in dough stage, process with hammer mill and fanning mill for best results. Seed quality at best has a purity of 98% and germination of 70% for a Pure Live Seed percentage of 69.

**Cultivars, Improved, and Selected Materials (and area of origin)**
Contact your local Natural Resources Conservation Service (formerly Soil Conservation Service) office for more information. Look in the phone book for"United States Government". The Natural Resources Conservation Service will be listed under the subheading "Department of Agriculture." There are currently no cultivars or improved varieties of giant sandreed available on the commercial market.

**References**
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**Prepared By:**
Richard Wynia, USDA NRCS Plant Materials Center
Manhattan, Kansas

**Species Coordinator:**
Richard Wynia, USDA NRCS Plant Materials Center
Manhattan, Kansas

Edited: 070414 jsp

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