

## PLAINS BRISTLEGRASS

*Setaria vulpiseta* (Lam.)  
Roemer & J.A. Schultes  
Plant Symbol = SEVU2

Contributed by: USDA NRCS Kika de la Garza Plant  
Materials Center



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### Alternate Names

*Setaria macrostachya*

### Uses

**Livestock:** Plains bristlegrass makes up an appreciable part of the forage on southwestern ranges. It provides moderate to high quality forage for all types of grazing livestock.

**Wildlife:** Plains bristlegrass provides fair to good forage for wildlife. It is a good seed producer, and its seeds can provide a source of food for wildlife. This species shows promise as a plant for both wildlife and range use.

### 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

Plains bristlegrass is a native, warm season, perennial bunchgrass that can grow up to three feet in height. *Setaria leucopila* (streambed bristlegrass) and *Setaria texana* (Texas bristlegrass) are sometimes included under the common name, 'plains bristlegrass', as

well. It is suspected that all three species, along with *S. scheelei*, may hybridize.

It should be noted when ordering plains bristlegrass seed, that the seed may belong to any of the three species formerly included under the common name, as much of the seed industry still uses the common name plains bristlegrass to include *Setaria macrostachya*, *S. leucopila*, and *S. texana*. There are notable morphological differences between the three species, which may affect the suitability of the plants for a specific site or project.

### Adaptation

Plains bristlegrass is native from South Texas to New Mexico, Colorado and Arizona, and down into central Mexico. Plains bristlegrass is found on open dry ground, in dry woods, and on well drained soils along gullies, stream courses, and other areas occasionally with abundant moisture. It can often be found on clay to clay loam soils as an early successional plant on disturbed prairie sites along the mid to lower Texas Gulf Coast.

### Known Distribution

Please consult the PLANTS database for the current distribution of this species.

### Establishment

Establishment of plains bristlegrass is most easily done from seed. A 1998 germination study with ninety-six accessions of plains bristlegrass seed obtained germination as high as 70 % at temperatures between 50-85° F. However, germination with this species tends to be inconsistent, often due to poor seed fill. Viable seeds do tend to have a long shelf life, however, as we have been able to germinate plains bristlegrass seed that was more than 25 years old.

For South Texas we recommend seeding plains bristlegrass in the fall, if there will not be a lot of competition from cool season weeds. However, you can seed in late winter or early spring, but be sure to allow new seedlings time to establish a good root system before the summer heat arrives. Plains bristlegrass averages 1,300,000 seeds per pound and can produce as much as 214 pounds of seed per acre.

Seeds should be planted on a clean, weed-free seedbed. Seeds may be planted to a ½" depth at a rate of one pound of pure live seed per acre, using a

native grass drill. They can also be broadcast at a rate of one and a quarter pounds of pure live seeds per acre, and covered to a maximum depth of ½". Seeding rates should be adjusted proportionally when used as part of a seeding mix.

### **Management**

Plains bristlegrass can be grown irrigated or dryland. It is drought hardy. We have not had any insect or disease problems with this grass. Fertilize according to current soil test results, once plants are established.

It is recommended that plains bristlegrass be given a year to establish a good root system before grazing. Once established, the grass can be grazed on a continual or rotational basis. For continual grazing, the recommended stubble height is a six inch minimum. For rotational grazing, a forage height between four to ten inches is recommended. Allow at least a month and a half between rotations.

### **Pests and Potential Problems**

For seed production, producers may wish to irrigate. Plains bristlegrass tends to have poor seed production under droughty conditions. Seed size and fill for plains bristlegrass appear to be strongly affected by site conditions. Seed retention can also be a problem. Seed producers should monitor the plants carefully for optimum harvest time, in order to minimize loss to shatter. Plains bristlegrass can yield up to 214 pounds of seed per acre for the smaller seeded *Setaria machrostachya*, and up to 369 pounds per acre for the larger seeded *S. leucopila*.

For additional assistance regarding the production and establishment of plains bristlegrass, please contact the Plant Material Center at (361) 595-1313.

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For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://Plant-Materials.nrcs.usda.gov>>

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