

A Conservation Plant Released by the Natural Resources Conservation Service
 Manhattan Plant Materials Center, Manhattan, Kansas

'Garden Sand Bluestem'

Andropogon hallii Hack.



Figure 1. Inflorescences of Garden sand bluestem in a field setting. Photographed by R. Alan Shadow, East Texas Plant Materials Center, Nacogdoches, TX.

'Garden sand bluestem' (*Andropogon hallii* Hack.) is an informal released in 1960 by the Soil Conservation Service (SCS), known now as the Natural Resources Conservation Service (NRCS) Plant Materials Center in Manhattan, Kansas.

Description

Sand bluestem is a native, warm-season, perennial grass that is commonly found in loamy or sandy textured soils. It spreads by seed and by aggressive elongated, creeping, scaly rhizomes that tend to form dense colonies 15 to 20 feet in diameter. This tall growing species produces seed from August to October on culms that are 3 to 6 feet in height. Leaf blades are up to 12 inches long and are from 1/8 to 3/8 inches wide. Leaf sheaths are shorter than its internodes and hairless. Inflorescences on the other hand are extremely hairy. The remainder of the plants body is

glaucous and described as being blue-green in color. It is similar in appearance to big bluestem and will occasionally hybridize in nature and produce individuals with intermediate morphological characteristics.

Source

Garden was a composite increase of a number of individual collections from native plants in Nebraska and South Dakota. It was collected by SCS employees Murray Cox and R. L. Carver in fall of 1957. It was field tested in several sites in Nebraska and South Dakota and performed well throughout the sand hills and into adjacent areas in South Dakota. Although never formally released as a variety it has survived in the commercial seed trade and has been used in conservation practices since the 1960s.

Conservation Uses

Garden can be found as a component in conservation planting mixes, especially on sandy soil areas where it performs well in preventing soil erosion and dune formation. Forage production and wildlife habitat are important functions provided by Garden sand bluestem. Upland songbirds eat its seeds and its upright growth habit provides nesting habitat for birds and small mammals. With the increased popularity of low input, low maintenance landscapes, garden has grown in use as an accent or unique plant focus in home and business landscapes.

Area of Adaptation and Use

Garden was collected in Nebraska and South Dakota and is uniquely adapted to course and sandy type soils. Land Resource Regions G and H are the broad areas that garden is adapted to and this area stretches from central Texas to an area just south of the Canadian border in Montana. Garden germplasm is uniquely adapted to the Nebraska Sandhills and the area in South Dakota immediately adjacent to it. This constitutes its primary area of adaptation.

Establishment and Management for Conservation Plantings

Garden should be seeded in the spring when soil temperatures have warmed sufficiently to enhance germination and establishment of the seedlings. The recommended method to seed garden is by using a drill with picker wheels in the box to ensure seed flow within the box and depth bands to provide the correct planting depth for the seed. A press wheel assembly located behind the double-disk openers is a plus to ensure good seed-to-soil contact. The seeding should be completed on a firm, weed-free bed for best results. Low nitrogen fertilization is encouraged since nitrogen would tend to stimulate annual weed species to compete with the

planting. Control of weedy species may be accomplished by mowing at a height of 6 to 8 inches to reduce weed pressure. Prescribed burns in the spring can damage cool-season species and remove the previous year's residue and invigorate the sand bluestem plants.

Ecological Considerations

Sand bluestem does not pose any known negative concerns for the environment. It can form dense colonies on coarse soils where it is well adapted. This attribute is seen as a positive trait for increasing ground cover on potentially fragile soil sites prone to erosion by wind and water. Grasshopper infestations can cause damage on juvenile stands of sand bluestem. Leaf rust is a common disease of this species that can create anti-quality problems for use of the grass as livestock forage.

Seed and Plant Production

Seed production of Garden sand bluestem is the easiest and best method of widespread propagation. Planting of seed in the spring or early summer when soil temperature reaches 50 degrees Fahrenheit is ideal. The planting site should be clean-tilled, firm, weed free to enhance seed germination and seedling establishment. Ideally the site could have been fallowed a year prior to planting to ensure that no persistent, perennial weed problems exist and that no herbicide has been used on the site that would inhibit grass seed germination or establishment. A drill equipped with double disk openers, depth bands, and picker wheels in the seed delivery box would provide optimum placement of seed units at 1/4 to 1/2 inch depth in the soil. A seedling rate of 30 pure live seeds per linear foot of row and row spacing of 24 to 36 inches apart will produce a good field stand. Application of nitrogen fertilizer to newly planted warm-season grass fields is not recommended since annual weed growth would be stimulated by fertility much more than the sand bluestem. Harvest in the fall with a combine and clean with a fanning mill and debearder to produce saleable seed lots.

Availability

For conservation use: Garden sand bluestem is available in the commercial seed trade from a number of seed producers.

For seed or plant increase: Garden, G2 seed material is available from the Manhattan Plant Materials Center, Manhattan, Kansas.

For more information, contact:

Manhattan Plant Materials Center

3800 South 20th Street

Manhattan Kansas 66502

Phone: (785) 539-8761

Fax: (855) 533-5070

<http://Plant-Materials.nrcs.usda.gov>

Citation

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

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