

Suther Germplasm Indiangrass (*Sorghastrum nutans*) (L.) Nash.

A Conservation Plant Released by the USDA NRCS Cape May Plant Materials Center, Cape May, NJ



Suther Germplasm Indiangrass (Sorghastrum nutans (L.) Nash) is source-identified germplasm released by the Cape May Plant Materials Center in 2002. Photo by, USDA NRCS.

Description

Indiangrass (*Sorghastrum nutans* (L.) Nash) is a native, perennial, warm-season, rhizomatous, bunchgrass that can grow to 7 feet tall. The stems have nodes that are slightly hairy; and internodes that are smooth. Grass blades grow to 3 feet long, and the ligule attaching the blade to the stem is depressed, somewhat heart-shaped, and often described as being reminiscent of a “gunsight”. The terminal inflorescence is a yellowish-brown, compact panicle, with fluffy seed. The spikelet has a small, twisted awn attached.

Source

Suther Germplasm Indiangrass is source-identified germplasm that originated from the piedmont of Cabarrus County, North Carolina. The undisturbed site was considered a remnant, eastern U.S. native prairie system. This germplasm was collected from a wet prairie in the floodplain of the Dutch Buffalo Creek, 27 miles Northeast of Charlotte, NC; at approximately 680 ft above sea level.

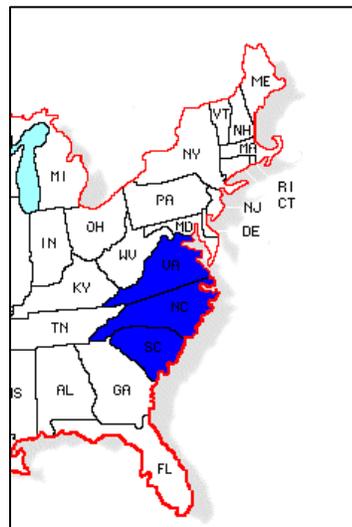
Conservation Uses

Indiangrass is an important component in tall grass native prairies. It can be used for USDA conservation programs

that establish and maintain permanent vegetative cover, critical area plantings, contour buffer strips, field borders, filter strips, forage and biomass planting, prescribed grazing, vegetative barriers to reduce sheet and rill erosion, food and cover for wildlife, and in native restoration projects to increase species diversity.

Area of Adaptation and Use

The area of adaptation has not yet been determined. Big bluestem can be grown throughout the United States from Maine to North Florida, from the Atlantic Coast west to the northern and southern Great Plains. The particular genotypic selection Suther Germplasm has been collected from the North Carolina piedmont, so is best suited for use in the North and South Carolina and Virginia Mid-Atlantic region specifically. This region corresponds to USDA Plant Hardiness Zone 7b.



Map of Suther Germplasm Indiangrass area of adaption and recommended area of use.

Establishment and Management for Conservation Plantings

Indiangrass, and other warm-season grasses, require a soil temperature above 50°F for satisfactory germination. Dormant seedlings have not been successful. The optimum time to plant is from early May to late June. If seed is drilled for solid stands, use 6–8 lb/ac rate PLS (pure live seed). For broadcast seedings, the rate should be 12–15 lb/ac. Seeding depth is ¼ inch. If seed is broadcast or hydro-seeded, it is important to incorporate the seed by tracking with a heavy machine to improve the seed to soil contact.

Indiangrass has strong seedling vigor, but stands are slow to develop where competition from broadleaf weeds and cool-season grasses are heavy. No-till planters can be

used to limit the amount of exposed weed seeds where weeds are persistent. Cool-season grasses can be controlled with a contact herbicide or mowing before seeding. Broadleaf herbicides do not negatively affect Indiangrass.

The most common cause of failure of warm-season grasses is a loose seedbed. Tilled seedbeds should be packed before and especially after seeding. The seedbed should be firm enough to show only a light imprint when stepped on. When using a no-till drill, be sure the coulter furrows are closed to avoid seed exposure and drying. This can be accomplished by culti-packing after the drilling operation.

If needed, fertilization can be used moderately as determined by a soil test, however, fertilization will also increase weed competition. Amendments may be applied prior to, during, or after seeding. Nitrogen should only be applied to enhance vigor and production in the second year after green growth has begun. Lime is recommended during site preparation if soil pH is below 5.5. No additional fertilization is necessary for critical area seeding.

Well-established stands of Indiangrass should not require replanting if properly managed and maintained. Poor stands can be rejuvenated by using proper management practices such as controlled grazing and prescribed burning before the start of spring growth, where permitted.

Hay/Grazing: Grazing should begin from mid to late June when grasses reach 12–16 in. Do not allow grazing lower than half the above-ground growth as overgrazing can damage the stand. Wait for another 12 in of re-growth before grazing again. Leaving 6–8 in of stubble before frost allows the plants to store carbohydrates and ensures the production of vigorous plant growth the following spring.

Ecological Considerations

There are no known limitations or cautions for its use.

Seed and Plant Production

Suther Germplasm Indiangrass had a germination rate of approximately 34% and produced an average of 78 lb/ac of cleaned seed at the Cape May, NJ Plant Materials Center (PMC) from 2008–2011. There are approximately 175,000 seeds/lb. Seed has a bristle that should be “debearded” or brushed free when cleaned. Bristles must be removed before using with conventional drills.

Availability

For conservation use: For sources of supply for Suther Germplasm Indiangrass or for more information on the availability, planting and use, contact your local NRCS office or Soil and Water Conservation District.

For seed or plant increase: Suther Germplasm Indiangrass is an Eastern US source-identified germplasm. NRCS maintains foundation stock at the Cape May Plant Materials Center (PMC) in Cape May Court House, NJ. It is now available from some commercial nurseries in the Northeastern United States.

Citation

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For more information, contact:
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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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