

Wynia Germplasm

Indiangrass

Sorghastrum nutans (L.) Nash.

Wynia Germplasm Indiangrass [*Sorghastrum nutans* (L.) Nash] was released in 2017 by the USDA NRCS Booneville Plant Materials Center, Booneville, Arkansas as a selected class release.

Description

Wynia Germplasm Indiangrass is a native, perennial, warm-season grass that reproduces from seed and short, scaly rhizomes. It grows from 6 to 7 feet. Indiangrass is easily identified, even in its juvenile state, by the prominent, deeply notched, two-part, split ligule located where the leaf blade attaches to the leaf sheath. Plant stems are erect with long (up to 36 inches long), narrow (up to 0.5 inch wide) leaf blades. The inflorescence is a condensed panicle up to 8 to 12 inches long bearing perfect spikelets each flanked by 1 or 2 sterile pedicels. There are approximately 145,000 seeds per pound of Wynia Germplasm.

Source

Wynia Germplasm Indiangrass is a composite of nine elite accessions of Indiangrass ecotypes selected from 86 accessions of Indiangrass collected from native stands in western Arkansas and eastern Oklahoma. Accessions were chosen for disease and insect resistance, leafiness, and forage quality. The nine elite plants were grown in an isolated polycross nursery and the seed harvested from the polycross was designated as Wynia Germplasm. No breeding, selection or genetic manipulation was used in the development of this release.

Conservation Uses

Wynia Germplasm is recommended for erosion control, field borders, wildlife habitat improvement, and critical area plantings. It is a suitable forage for livestock when grazed or cut for hay in the late vegetative to boot stage. For optimum forage yield and quality harvest at the boot stage. Indiangrass is considered only moderately palatable after maturity and fair forage for winter grazing. It provides wildlife habitat for deer, turkey, quail, dove, song birds, and small mammals.

Area of Adaptation and Use

Wynia Germplasm is adapted to Major Land Resource Areas 116A, 116B, 117, 118, and 119 (Ozark Highlands to the Ouachita Mountains), which represents the region where the seed collections were made in eastern Oklahoma and western Arkansas. Adaptation is anticipated across the southeastern U.S. through Land Resource Regions P, O, T, and J within USDA Hardiness Zones 8a and 9a. Further testing is needed to verify the full range of adaptation of Wynia Germplasm.

Establishment and Management for Conservation Plantings

Plantings should be done in spring, April 1 to May 15, at a rate of 9 lbs. pure live seed (PLS)/acre for monoculture plantings (30 PLS seed per square ft). For seed mixes, adjust the rate according to the desired percentage of Wynia Germplasm in the mix. Seed should be planted approximately ½ inch deep, and increased to ¼ inch depth in sandy soils. A clean, firm, and weed free seedbed, with adequate soil moisture, is essential to achieve a good stand. Wynia Germplasm can be seeded with a native grass drill equipped with picker wheels for planting fluffy seed. A less preferred method of planting is broadcasting seeding on a prepared seedbed. If seed are broadcast planted, cultipacking or a light drag is needed to cover seed and to



Wynia Germplasm Indiangrass at the USDA-NRCS Booneville, Arkansas Plant Materials Center.

ensure good seed-to-soil contact. Seed may be mixed with a carrier such as sand or rice hulls to aid in seed dispersal. Hydroseeding may be used for areas not accessible by conventional planting equipment.

Fertilization is not recommended the initial year of planting unless the soil test indicates a severe deficiency in soil nutrients. Nitrogen should not be used until the grass is fully established. Applying nitrogen the establishment year will only promote weedy species growth which will inhibit the establishment of Indiangrass.

Grazing should be deferred from new plantings for at least one year. Do not graze or cut below 8 inches and allow ample recovery time between cutting or grazing events. Periodic prescribed fire will help maintain stand health and stimulate production. Contact your local NRCS office for assistance with developing a prescribe grazing plan or burn plan. Mowing and pre-emergent herbicides may be used to control weed competition after establishment where applicable. For herbicide recommendations, contact your local extension office.



Late vegetative growth of Wynia Germplasm Indiangrass produces a crude protein of 9% with 56% total digestible nutrients.

Ecological Considerations

No severe insect or disease problems have been observed on Wynia Germplasm. However, Indiangrass is host to the leaf spot pathogen (*Colletotrichum caudatum*) and rust fungus (*Puccinia virgate*). The seed is wind distributed and may invade areas adjacent to plantings.

Seed and Plant Production

Seed production fields of Wynia Germplasm is established from seed or plugs. Seed is harvested by direct combining or with a Flail Vac harvester. For combine harvesters, adjust concave clearance to 12-15 mm, cylinder speed of 900 rpm, air flow on the lowest setting, and open the chaffer sieve approximately 25%. A ¼ acre breeder field at the Booneville Plant Materials Center produced a 2 year average of 10-15 PLS pounds. Seed should be stored at 50°F with a relative humidity of 50% to maintain long-term viability. All commercial seed fields of Wynia Germplasm must be isolated from other cultivated varieties and wild populations of Indiangrass by a minimum of 900 feet.

Availability

For conservation use: Breeder seed will be available to growers for seed increase. Seed of Wynia Germplasm Indiangrass will be identified by USDA NRCS accession number 9107486.

Citation

Release Brochure for Wynia Germplasm Indiangrass [*Sorghastrum nutans* (L.) Nash]. USDA-Natural Resources Conservation Service, Booneville Plant Materials Center, Booneville, AR.

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