

TECHNICAL

NOTES

U. S. DEPARTMENT OF AGRICULTURE
SALINA, KANSAS

SOIL CONSERVATION SERVICE

PLANT SCIENCE TECHNICAL REFERENCES - FOR IN SERVICE USE ONLY

TECHNICAL NOTE - Plant Materials KA-4

June 28, 1966

Re: Release of Osage Indiangrass (Sorghastrum nutans(L.) Nash)

Occasionally new or improved strains and varieties of plants are developed and released jointly with cooperating agencies. The purpose of this Technical Note is to provide field offices with information on the new strain or variety. It is important for field personnel to keep informed on new releases.

Osage indiangrass was selected at Kansas Agricultural Experiment Station, Manhattan. It was developed cooperatively by the Kansas Agricultural Experiment Station, Agricultural Research Service, and the Soil Conservation Service.

SOURCE: Numerous collections made in eastern and south central Kansas and in central and northeastern Oklahoma in 1953.

METHOD OF BREEDING: Osage is an eight-clone synthetic developed from material collected as seed in eastern and south central Kansas and in central and northeastern Oklahoma. Selection of the eight clones was based on preliminary evaluation for leafiness, early maturity, seed yield, and on progeny testing of selected plants for seed yield and quality. Uniformity was also considered in final selection.

DESCRIPTION: Osage is vigorous, leafy and a good seed and forage producer. Uniformity of maturity and freedom from disease were also considered in selection. Because of late maturity, seed production should be limited to the area south of the Kaw and Smoky Hill Rivers.

RELEASED: Yes. Formally released cooperatively by Kansas Experiment Station, Agricultural Research Service and Soil Conservation Service, May 31, 1966.

BREEDER SEED: Kansas Agricultural Experiment Station,

OTHER INFORMATION: Osage indiangrass was originally evaluated as Strain 2 in field plantings, further refined and evaluated as Strain 3. Its general area of adaptation is eastern Kansas, northeastern Oklahoma and western Missouri. It has good seedling vigor, is easily established from seed, volunteers aggressively, and also spreads by short, scaly underground rhizomes.

AC TC
WUC PMC
FS(Agron) TSC-PS
FS(PMS) ASCS

SEED PRODUCTION: Certification will be on a limited generation basis to minimize genetic changes. Certified fields will be grown only from foundation seed and foundation only from breeder seed. There will be no registered class of seed.

Seed production is best in 36 to 40 inch rows, fertilized with 80 to 90 pounds of nitrogen per acre with other elements as needed. Cultivate and apply irrigation water by the row method. Weedy plants in seed production fields can be controlled by cultivation, herbicides, and hand roguing as necessary. Pre-emergence herbicides applied at the proper rate and time will effectively control weedy annual plants in one-year old stands of indian-grass. Yields in excess of 350 pounds of bulk seed per acre can be expected with good purity and germination. There are approximately 170,000 seeds per pound. Matures early in October at Manhattan. Osage was developed to meet a specific field need in range seeding mixtures. Commercial production of seed is encouraged for widespread use within its area of adaptation.

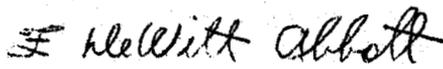
IMPORTANCE OF INDIANGRASS: It is a native, perennial, warm season tall grass which reproduces from seed and short, scaly, underground stems. The beautiful golden plume-like seed heads are on stems from four to eight feet tall.

Indiangrass is found growing throughout the tall grass prairie of the United States and is one of the most important tall grasses. It is very nutritious and readily eaten by all classes of livestock either as green or dry forage hay. This high producing tall grass is a decreaser on bluestem ranges.

when continually grazed shorter than five to eight inches during the growing season, it is replaced by less productive plants. It is easily established from seed and is being planted more each year as a component of native grass mixtures or as pure stands. Responds to good range management on sandy and hardland soils within its area of adaptation,

Prepared by:

Robert D. Lippert
Plant Materials Specialist


F. DeWitt Abbott
State Soil Conservationist