USDA United States Department of Agriculture

Illinois Grazing Manual Fact Sheet

SPECIES • WARM-SEASON GRASS

Indian Grass

Photo by: Jennifer Anderson-Cruz: Hosted by the USDA-NRCS PLANTS Database

General Use

Indian grass is a perennial, warm-season bunchgrass noted for rapid growth during mid to late summer when high temperatures slow the growth of cool-season grasses. Indian grass is used mainly for livestock forage in rangeland and pastures, and as a hay crop. Wildlife biologists rate Indian grass as excellent for nesting and rearing areas. Undisturbed nesting and hatching are possible because grazing and haying operations are done after the prime nesting season for most wildlife species.

Characteristics

Indian grass produces a deep, extensive root system and short rhizomes. Indian grass can be distinguished from other native grasses, even when plants are young, by a fuzzy stem and a claw-like extension of the sheath. When mature, Indian grass has a single, narrow, plume-like, golden seed head. Growth begins in late April or early May, increasing gradually with higher temperatures. A production of about 70 percent annual growth after July 1st can be expected. If undisturbed, a height of five to eight feet can be attained with good stem strength. Mature, unharvested stems will remain standing well into winter for increased protective cover for wildlife.

Adaptability

Indian grass has been shown to be adaptable throughout Missouri, Iowa, Illinois, Indiana and the western halves of Kentucky and Ohio, and native to states east of the Rocky Mountains. Indian grass is suited to all soils, except those saturated for an extended period. Deep, well-drained soils are preferred. One variety of Indian grass recommended for use in Illinois is "Rumsey." Rumsey was released for public use by the Natural Resources Conservation Service's Elsberry (Mo.) Plant Materials Center.

Establishment

Spring seedings of Indian grass - in April and May - are recommended into fine, firm seedbeds free of competition. Seedbeds should be firmed with a roller prior to drilling or broadcasting seed. If the seed is planted with the broadcast method, it also should be rolled afterward ensure good seed to soil contact. Seed that is drilled should be planted one-fourth inch deep. Check with Natural Resources Conservation Service or University Extension for current recommended seeding rates.

No-till seedings in closely-grazed sod also have been successful where control of sod is accomplished with proper herbicides. In addition, early spring plantings (March and April) and fall dormant seedings (November and December) have been successful. They also provide weed and soil erosion control.

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Special rangeland drills capable of seeding light, fluffy seed must be used to plant unprocessed Indian grass seed. Seed processed by removing the appendages with a debearder may be planted with a wide variety of commonly-used, grass-seeding equipment.

Controlling weeds at seeding time is important because grass establishment and survival can be suppressed by weed competition for moisture and sunlight. Weed control must be provided by tillage during seedbed preparation and by mowing.

Fertilizer applied during the seeding year usually does not increase stand density, but will increase plant vigor. To limit weed growth, nitrogen should not be applied until mid-July, and then only on stands with limited weed competition. Not more than 30 pounds of nitrogen per acre should be applied.

Stand densities of 1.5 to 2 established plants per square foot in the spring of the second year is adequate for hay yields or pasture.

Management

Annual fertilizer applications of 60 pounds nitrogen and 30 pounds each of phosphorus and potassium per acre usually are adequate for maximum yields. Rates should be adjusted in accordance with soil tests.

Weeds on established stands of Indian grass can be minimized by maintaining the Indian grass stand's vigor and density. Occasional use of approved herbicides will reduce competition and help restore plant vigor to an overgrazed stand. Burning plant residues at initiation of spring growth decreases competition and stimulates growth. Fields should be burned every three to five years. Indian grass used for wildlife cover should be burned once every three or four years to reduce excessive mulch accumulations that restrict movement of new hatchlings and attract nest predators.

Indian grass may be grazed when a height of 14 to 16 inches is reached and can be grazed continuously as long as a minimum height of eight to twelve inches is maintained. In management intensive systems, grazing in the first paddock can begin when plants reach a height of 10 inches, preventing them from becoming over mature before the rotation reaches the last paddock. A minimum of six inches of residue should remain at the end of each grazing period. The following rest period should be long enough to allow an accumulation of 14-16 inches of growth before being regrazed. Indian grass is the latest maturing of the three most common warm-season grasses (switch grass and big bluestem are the others) and provides excellent late-season forage. A height of 12 inches should be attained before frost and may be grazed to a height of six to eight inches after frost. The winter stubble is necessary to provide insulation.

For optimum hay quality and quantity, Indian grass should be cut when it is at boot stage, usually in early August.

Where to Get Help

For more information about big bluestem, contact the local Natural Resources Conservation Service listed in the telephone directory under "U.S. Government," or the University of Illinois Cooperative Extension Service.

USDA United States Department of Agriculture
Natural Resources Conservation Service
University of Illinois Extension
College of Agriculture, Consumer and Environmental Sciences
Illinois Department of Agriculture
ILGLCI Illinois Grassland Conservation Initiative