USDA United States Department of Agriculture

Illinois Grazing Manual Fact Sheet

SPECIES • INVASIVE SPECIES • WARM-SEASON GRASS

Johnsongrass

Photo by: James Henson: Hosted by the USDA-NRCS PLANTS Database

General Information

Johnsongrass is a perennial sorghum that closely resembles sudan grass, is native to the Mediterranean region, and was introduced into the United States about 1830 from an unknown source.

Taken by Col. William Johnson to Selma, Alabama, for use as a forage plant, Johnsongrass grew luxuriantly there, and became known as Johnsongrass.

In Illinois, Johnsongrass is usually not planted or thought of as a desirable species, but is hayed, and grazed incidental to other grasses. Good quality hay and grazing can be expected. Johnsongrass is considered a pest and a noxious weed in cultivated areas.

Characteristics

Johnsongrass is an erect, perennial, warm-season plant that grows from three to 10 feet high and is sometimes confused with switch grass or eastern gamagrass.

The leaves usually have reddish spots on them from a pathogen. Stems are about the size of a pencil. The broad-bladed leaves are one-half inch to one inch wide with a distinct, light green midrib. The plant usually grows in bunches.

Branching seed heads form at the tip of the stem becoming reddish at maturity. Established plants have large, fleshy root stock called rhizomes, often as much as one-half inch in diameter.

The most undesirable forage characteristic of the plant is its tendency to be toxic under certain conditions.

Adaptability

Johnsongrass is adapted to a wide range of soils, has spread over much of the United States, and does not seem to adapt well to very shallow, wet or saline soils.

Establishment

Johnsongrass readily establishes from seeds or from rhizomes.

Management

Johnsongrass is very palatable when green and growing and is easily grazed out of grasslands.

To make the best pasture, graze under a planned grazing system. Leave about eight inches of leaf, followed by a recovery period of 30 to 45 days, depending upon growing conditions.

Under careful management, maintaining a full stand of Johnsongrass can be difficult. In fact, grazing is a recommended control measure.

more ►

Haying operations should leave about six inches of leaf. Johnsongrass should be cut when the plants are in the early boot stage. Forage yields of two to five tons per acre are possible, with crude protein of 10 to 14 percent and total digestive nutrient values of 50 to 60 percent.

Toxic Properties

Johnsongrass responds well to nitrogen fertilizer but has the potential for nitrate poisoning.

The risk is greater on fields fertilized heavily with nitrogen during wet, cool, cloudy weather, or even drought.

The grass does not assimilate the nitrogen quickly enough to prevent toxic build-up under these conditions. The hay is also susceptible because the nitrogen level does not decrease with time.

- Nitrate poisoning affects grazing animals very suddenly.
- Prussic acid poisoning is normally associated with stress in the grass.
- Dangerous times are immediately after a killing frost or in young regrowth after a drought.
- Prussic acid levels in the plant will decrease with time, unlike nitrates which do not decrease with time.

Generally, one week is needed on standing plants, and about three weeks on ensilage.

To reduce the risk of prussic acid poisoning, do not turn hungry animals into suspect pasture. Also, release only a few cattle, and observe their reaction. Animals also are affected quickly by prussic acid poisoning.

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