

A Conservation Plant Released by the Natural Resources Conservation Service
Manhattan Plant Materials Center, Manhattan, Kansas

‘Atkins Germplasm’ Prairie Cordgrass

Spartina pectinata Link.



Figure 1. Inflorescence of Atkins prairie cordgrass at full flowering stage. Photograph by R. Alan Shadow, East Texas Plant Materials Center.

‘Atkins Germplasm’ prairie cordgrass (*Spartina pectinate* Link.) is a vegetative selected class release made in 1998 in cooperation with the Kansas State University Agricultural Experiment Station.

Description

Atkins is a native, warm-season perennial grass that spreads by rhizomes and seed. It is a robust species that reaches a mature height of 3 to 6 feet. Mature plants have a course, thick, woody system of rhizomes that forms a dense sod. Roots are poorly branched, but may penetrate vertically to a depth of 6 to 10 feet. Dense stands of

prairie cordgrass are very competitive and will often exclude other species from its domain. It has a common name of ripgut for its sharp, serrated leaf edges. Its uniform dark green color changes to yellow-gold in the fall and winter. Seed units are flat and paper-like with barbed awns.

Source

Atkins originated from seed collected from native plant stands growing along the Missouri River bottomlands in east central Nebraska. The collection site was located on deep loamy to clayey soils developed from stream deposited materials in Washington County, Nebraska near the town of Blair.

Conservation Uses

Prairie cordgrass is widespread in wet areas throughout the United States. Cordgrass is a dominant species in wet lowland areas of the true prairie region of central North America. It is used for early grazing and harvested for hay in central Manitoba, but the forage quality is not ideal and a diet of this hay requires supplements to ensure livestock health. Atkins Germplasm is recommended and used for streambank and shoreline stabilization and wildlife habitat protection. Prairie cordgrass can also be used in filter strip and riparian buffer establishment for water quality protection. It has also been used in wetland restoration and native prairie landscaping and enhancement. A very versatile species especially in potentially wet areas of a landscape.

Area of Adaptation and Use

The primary areas of adaptation for Atkins are wet areas within the states of Nebraska and Kansas and northern Oklahoma. Atkins can typically be used on low, wet soils. Once established, it can tolerate some dry conditions due to its extensive deep roots and abundant rhizome system. It can also stand inundation and short periods of very wet conditions. However, it is intolerant of high water tables and prolonged flooding events.

Establishment and Management for Conservation Plantings

Atkins Germplasm is established by vegetative plantings. A level, weed-free seedbed tilled to 4 inches should be prepared. Fertilization of the site might be needed if planting is on a newly constructed, relatively sterile location. A soil test is recommended and fertilization to provide minimum fertility levels will aid in rhizome establishment. Fertilize after establishment to maintain stand vigor. Plantings made during the early spring months of March, April, and May have provided the best overall establishment results. Satisfactory results have also been achieved when rhizomes are planted in a dormant condition in the late fall or early winter. It is

essential that growing points are upright when rhizomes are planted. Plant rhizomes 5 inches deep and 2 feet apart within a row. A minimum of three rows should be planted 40 inches apart beginning at the water line and moving up slope from there. Because of its nature and rhizomatous character, the planting will soon spread and fill in between and within the rows. Plantings should be made into a moist soil condition if possible. If the soil is dry, new rhizomes should be watered in at a rate of 2 gallons a linear foot of row to keep them moist and the site should be kept moist through the first growing season. Pre-planted rhizomes should be protected from drying out, freezing, sunscald, and overheating. If rhizomes cannot be planted in a reasonable time frame after harvest then they should be kept in a cool and moist environment until planting can be completed. Weed control can be provided by clipping before the plants are 12 inches tall.

Ecological Considerations

Pests are not a problem for vegetative materials. However, seed predation by insects is a problem in most of the native range of cordgrass. The extreme northern zones of the United States has had success with seed production on this species. This plant may become weedy or invasive in some regions or habitats and may displace other vegetation if not managed properly.

Seed and Plant Production

Rhizome production fields can be established with initial rhizomes being planted a foot apart in the row and then a 6 to 8 foot gap between rows to allow for rhizomatous growth. Two growing seasons are usually required prior to harvesting rhizomes from the field. With the wide spacing between rows, the rhizome producer can alternate which side of the row they dig for production every other year. This alternating production method should allow the plants to recover annually without weakening the overall stand health.

Availability

For conservation use: Vegetative plant stock (rhizomes) are not available from any commercial sources at the present time.

For seed or plant increase: G1 and G2 vegetative stock (rhizomes) are available from the USDA-NRCS Plant Materials Center in Manhattan, KS.

For more information contact:
Manhattan Plant Materials Center
3800 South 20th Street
Manhattan, Kansas 66502
Phone: (785) 539-8761
Fax: (855) 533-5070
<http://Plant-Materials.nrcs.usda.gov>

Citation

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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 at <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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