United States Department of Agriculture
Natural Resources Conservation Service
Plant Materials Program

'Nezpar' Indian ricegrass

Achnatherum hymenoides (Roemer & J. A. Schultes) Barkworth

A Conservation Plant Release by USDA NRCS Aberdeen Plant Materials Center, Aberdeen, Idaho

'Nezpar Indian ricegrass

'Nezpar' Indian ricegrass (*Achnatherum hymenoides*) is a cultivar released in 1978 by the Natural Resources Conservation Service and the University of Idaho Agricultural Experiment Station.

Description

Nezpar Indian ricegrass is a short to medium lived, native, cool-season bunchgrass 8 to 30 inches tall. It has many tightly rolled, slender leaves growing from the base of the bunch giving it a slightly wiry appearance. It has a wide spreading panicle inflorescence with a single flower at the end of each hair-like branch. Seeds are round to elongated, black or brown, and covered with a fringe of short, dense, white callus hairs.

Source

The seed source for Nezpar was first collected in 1935 from a native plant community south of Whitebird in north central Idaho by the Pullman, Washington Plant Materials Center. Detailed collection site information is not available. The Aberdeen Plant Materials Center tested and compared Nezpar with over 200 accessions for its vegetative characteristics, low seed dormancy, and ease of establishment relative to other Indian ricegrass collections.

Conservation Uses

Indian ricegrass is highly palatable to livestock and wildlife. It is a preferred feed for cattle, horses and elk in all seasons. It is considered a preferred feed for sheep, deer and antelope in spring and a desirable feed for sheep, deer, and antelope in late fall and winter. It reaches its peak production from mid-June through mid-July. It holds its nutrient value well at maturity. It is not used for hay.

Indian ricegrass is valued for stabilizing sites susceptible to wind erosion. It is well adapted to stabilization of disturbed sandy soils in mixes with other species. It is naturally an early invader onto disturbed sandy sites but does not compete well with aggressive introduced grasses during the establishment period. However, it is very compatible with slower developing native grasses such as Snake River wheatgrass, bluebunch wheatgrass, thickspike wheatgrass, streambank wheatgrass, western wheatgrass, and needlegrass species. Drought tolerance combined with the fibrous root system and fair to good seedling vigor, make Indian ricegrass desirable for reclamation in areas receiving 8 to 14 inches annual precipitation.

The abundance of plump, nutritious seed produced by Indian ricegrass makes it an excellent food source for birds, such as morning doves, pheasants, and songbirds. Rodents collect the seed for winter food supplies. It is considered good cover habitat for small animals and birds.

Due to its attractive seed heads, Indian ricegrass is recommended for roadside, campground, and other low rainfall locations for beautification. The nutritious seed of Indian ricegrass was one of the staple foods of American Indians.

Area of Adaptation and Use

Nezpar is best adapted to coarse soils in regions that receive 8 to 14 inches annual precipitation. At higher elevations (6,000 ft and above) where average annual temperature is 40° F or less, plantings should be restricted to south and west facing slopes or other "hot" locations.

Nezpar does not tolerate poorly drained soils, extended periods of inundation, winter flooding or shading. It is tolerant of weakly saline and sodic conditions, but prefers neutral soils. It can also tolerate fire later in the growing

season and when the plant is dormant without serious damage.

Establishment and Management for Conservation Plantings

Nezpar should be seeded with a deep furrow drill at a depth of 1/2 to 1 inch on medium to fine textured soils and 1 to 3 inches on coarse textured soils. A deeper planting depth puts the seed in contact with moist soil conditions, which aids in the stratification process and makes the seed less likely to be dug up by rodents. Use of older seed up to 4 to 6 years of age may improve germination and should be planted at 1/2 to 1-inch depth. The recommended seeding rate is 8 pounds Pure Live Seed (PLS) per acre. If used as a component of a mix, adjust to percent of mix desired. For critical area erosion control or if broadcasting seed, the seeding rate should be doubled. Two separate seeding operations may be necessary when planting seed mixes, because most species should be planted at shallower depths than those recommended for Indian ricegrass. Indian ricegrass should be planted first, followed by the seeding operation for the rest of the mix.

Dormant fall seeding is recommended for Nezpar. Seedling vigor is fair to good, but the seed may have a high percentage of hard seed, and stands may take 2 to 5 years to fully establish.

Stands may require weed control measures during establishment. Broadleaf herbicides should not be made until plants have reached the 4-6 leaf stage or later. Mowing the stand when weeds are beginning to bloom will help reduce weed seed development. Grasshoppers and other insects may damage new stands and use of pesticides may be required. All herbicides and pesticides should be applied according to the label.

New stands should not be grazed until the plants are reproducing by seed. Indian ricegrass benefits from grazing use if it is moderately grazed in winter and early spring. Livestock should be removed while there is still enough growing season moisture to allow recovery, growth, and production of seed. Stands will deteriorate under heavy spring grazing systems.

Grazing management with rest or deferment schedules that allow plants to produce seed every 2 to 3 years is recommended. By the eighth or ninth year following establishment, the seed bank should be adequate, with a wide variation of low dormancy to hard seed to ensure long term stand survival with proper grazing management.

Ecological Considerations

Nezpar is from a species native to the Intermountain West and has no known negative impacts on wild or domestic animals. Nezpar is not considered a weedy or invasive species but can spread to adjoining vegetative communities under ideal environmental conditions.

Seed and Plant Production

For seed production, Nezpar should be seeded in 36 inch rows at 3.5 pounds PLS/ac to allow mechanical weed control and to maintain rows. Seed fields are productive for about five years. Nezpar seed should be swathed, followed by combining of the cured windrows. The seedheads readily shatter and require close scrutiny of maturing stands. It is very difficult to thrash all the seed if direct combined, and it may be beneficial to re-thrash windrows after a few days for seed not threshed in the first operation. Seed is typically harvested in late July and yields range from 100 pounds per acre (dryland) to 200 pounds per acre (irrigated).

Availability

For conservation use: Certified seed is available from commercial seed vendors.

For seed or plant increase: Breeder and Foundation seed is maintained by the Aberdeen PMC. Foundation seed is available through the University of Idaho Foundation Seed Program and the Utah Crop Improvement Association. Registered and Certified seed may be produced from Foundation seed.

For more information, contact:
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Citation

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