# Notice of Naming and Release of 'Egan' American Sloughgrass (Beckmannia syzigachne)

The
Alaska Plant Materials Center
a Section of the
Division of Agriculture
Alaska Department of Natural Resources

and the
United States Department of Agriculture - Soil Conservation Service

Announce

The naming and release of 'Egan' American Sloughgrass [Beckmannia syzigachne (Steud.) Fern] for commercial production and marketing of seed. This variety was selected for wetland restoration and erosion control in Alaska.

**Scientific name:** Beckmannia syzigachne (Steud.) Fern.

**Common name:** American Sloughgrass

**Cultivar:** 'Egan'--This variety name was selected in honor of William A. Egan, the first and fourth Governor of the State of Alaska. During his final term, Governor Egan signed into law, on June 20, 1972, the act creating the Alaska Plant Materials Center.

**Other Identification Numbers:** R-2, T12053

**Origin:** The original seed collection was made by James R. Stroh, July 26, 1973. The seed was taken from a single plant growing on gravel road fill off the Steese Highway in Gold Stream Valley, North of Fairbanks, Alaska. The original collection notes referred to this accession as (Beckmannia erucaeformis). The collection has since been renamed.

**Description and Occurrence:** Beckmannia syzigachne is generally described as a light green grass with tufted culms native to cooler regions of North America. This species, which is usually associated with wet ground, can grow to 90 cm in height.

Many North American descriptions of American Sloughgrass, classify it as an annual. This has not, however, been the experience of the Alaska Plant Materials Center staff or other investigators working with the species in Alaska. The staff has found that 'Egan' American Sloughgrass, as well as the other accessions of Beckmannia syzigachne that have been tested, are short-lived perennials. Stands tend to decline after four to five years, and stand decline can be hastened by competition when more aggressive grass species become established in a Beckmannia stand.

**Development:** 'Egan' American Sloughgrass was tested in three initial screening trials at the Plant Materials Center at Palmer from 1974 to 1983. Additional offsite testing started in 1980, and to date, 'Egan' has been or is being tested at 26 sites in Alaska and the Yukon Territories of Canada.

Original seed increase occurred in 1979 and again in 1981. A one-acre increase plot was established in 1983.

**Use:** Included in the duties of the Conservation Plant Project at the Alaska Plant Materials Center is the responsiblity for developing new plant varieties for erosion control, reclamation, and habitat. Therefore, 'Egan' American Sloughgrass has only undergone testing for these applications.

While much has been written about the species' value as forage both in North America and Eurasia, this application is, by law, not a priority for the Plant Materials Center. Seed of this accession has been supplied to interested farmers in Alaska, as well as the University of Alaska Agricultural and Forestry Experiment Station and South Dakota State University for forage research. Early results from the U of A Agricultural and Forestry Experiment Station indicate that it is not suited for non-irrigated upland hay or forage production, but because the species exhibits forage potential, it is hoped that additional forage evaluation will occur on wet sites.

Presently, 'Egan' American Sloughgrass is recommended for reclamation or erosion control plantings in seasonally wet areas such as ditches, streambanks, or fresh water shorelines. Because of the species' documented use by waterfowl, it is also recommended for plantings intended to benefit ducks and geese. While the potential for hay or forage production exists, this recommendation is being withheld at this time.

**Area of Adaptation:** Based on offsite evaluations, species characteristics, and the natural range of the species, 'Egan' American Sloughgrass can be expected to perform satisfactorily between 60° north latitude, and theArctic Circle. Evaluation is not complete beyond this region. Its value in Southeast Alaska has not yet been determined, and it has been found not to survive on Kodiak Island or the Aleutian Chain.

Within the range of adaptation, 'Egan' American Sloughgrass has shown the best performance on sites that are seasonally wet, flooded, or covered by snow drifts late into June. More detailed evaluation data is available from the Alaska Plant Materials Center.

**Seed Characteristics & Production:** Although 'Egan' American Sloughgrass is less susceptible to seed shatter than any other accession of Beckmannia that was tested, seed shatter remains a moderate problem. In general, seed production, harvesting and cleaning of 'Egan' is easier than some native grasses in production at this time. Harvesting and cleaning can be accomplished with standard equipment.

Yields of clean seed off a one-acre plot are as follows: 1984 - 453 pounds, 1985 - 305 pounds. The lower yields from the 1985 crop resulted from shatter caused by a severe wind prior to harvest. Seed has generally been ready for harvest during the second or third week in August.

Because this species is most highly adapted to wet sites, seed production will be restricted to certified seed growers having the ability to irrigate production fields. The Alaska Plant Materials Center has found that if 'Egan' American Sloughgrass is grown on upland farm land without irrigation, the stand will be stressed to the point of disease onset. The 1983 increase plot was thus affected following a period of drought during 1984. The problem was corrected with 12 hours of continuous irrigation. Despite the problem, a good harvest was obtained. Monitoring seed production fields for drought stress will be a necessary management practice for growers of 'Egan' American Sloughgrass.

**Increase and Distribution:** 'Egan' American Sloughgrass seed will be recognized in Breeder, Foundation, or Certified seed classes. Breeder and Foundation seed production will be maintained by the Alaska Plant Materials Center. Foundation class seed will be available to seed growers through the Alaska Seed Growers, Inc. (formerly the Alaska Crop Improvement Association). All interested seed growers should contact the Alaska Plant Materials Center or the Alaska Seed Growers, Inc.

Approved by:

Esther C. Wunnicke — 3/24/86
Esther Wunnicke, Commissioner — Date
Alaska Department of Natural Resources

Bill L. Heim — 3/20/86
Bill Heim, Director — Date
Alaska Division of Agriculture

Burton L. Clifford — 3/31/86
Burton Clifford, State Conservationist, Alaska — Date
Soil Conservation Service, USDA

James B. Newman — 4/25/86
James B. Newman — Date
Ecological Science & Technology Division
Soil Conservation Service
Washington D.C.