

Notice of Naming and Release
of
'Gruening' Alpine Bluegrass
(Poa alpina)

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 'Gruening' Alpine Bluegrass Poa alpina L. for commercial production and marketing of seed. This variety was selected for revegetation, reclamation, and erosion control in Alaska.

Scientific Name: Poa alpina

Common Name: Alpine Bluegrass

Cultivar: 'Gruening' -- This variety name was selected to honor Ernest Gruening who served as Alaska Territorial Governor, 1939-1953, and U. S. Senator for the State of Alaska from 1958-1968. As a United States Senator, Senator Gruening was an early supporter for a Plant Materials Center in Alaska.

Other Identification Numbers: PI 235491, K-34

Origin: The Alaska Plant Materials Center received PI 235491, Poa alpina, through the National Plant Introduction System. The collection notes for the accession indicate that it was originally collected by H. S. Gentry and Harry Schoth, agricultural explorers for the United States Department of Agriculture in 1956. This accession was collected from a single wild plant growing on a limestone deposit at an elevation of 1,232 meters near LaCure, on the Swiss-French border. Further increase of this accession, occurred at Beltsville, Maryland. The Alaska Plant Materials Center received the seed in 1977.

Description and Occurrence: Poa alpina is generally described as a perennial bunch grass that is native to arctic and boreal regions throughout most of Alaska with the exception of the Aleutian Islands and the southern portion of Southeast Alaska. Within North America, the species can be found from Alaska eastward throughout arctic and boreal Canada, and south to Quebec and northern Michigan. Further southern extension occurs in North America into Colorado and Utah at high elevations of the Continental Divide. Similar latitudinal and elevation extensions occur in Europe and Asia for this circumpolar species.

This non-rhizomatous species usually grows to a height of 10-40 centimeters with stout leaves 2-5 millimeters wide. This species forms a noticeable thatch with persistent leaves from previous years' growth.

Development: 'Gruening' Alpine Bluegrass has been tested at the Alaska Plant Materials Center at Palmer, Alaska since 1979. This accession has outperformed 24 other accessions of Poa alpina in all aspects, while under initial evaluation from 1979 through 1983.

Off-site evaluation began in 1983 at 18 sites throughout Alaska. Original seed increase occurred in 1981, and again in 1983 and 1984. In 1985, a quarter acre planting was established. The first harvest from this plot occurred on July 7, 1986.

Use: Included in the duties of the Conservation Plant Project at the Alaska Plant Materials Center, is the responsibility for developing new plant varieties for erosion control, reclamation and habitat. Therefore, 'Gruening' Alpine Bluegrass has only undergone testing for these applications. It is doubtful that this cultivar will have any value as an agricultural forage crop, although literature states that alpine bluegrass has been and is being used as a high elevation meadow forage by domestic livestock in North America and Europe.

No additional evaluation of this cultivar's forage value for domestic animals is expected.

Both the initial evaluation at Palmer and the off-site evaluations at other areas in Alaska, indicate that 'Gruening' Alpine Bluegrass will be used mainly for erosion control and reclamation ranging from stream banks to gravelly alpine sites. It is expected that this cultivar will replace a portion of the Kentucky Bluegrasses presently used for reclamation in some areas of Alaska. The short-growing nature and adaptation to gravelly sites indicate that this cultivar will also have use in highway revegetation where mowing becomes a concern.

Area of Adaptation: Based on off-site evaluations, species characteristics, and the natural range of the species, 'Gruening' Alpine Bluegrass can be expected to perform satisfactorily from 60° north latitude to the Arctic Circle. Based on evaluations on Kodiak Island, an area south of 60° north latitude, 'Gruening' Alpine Bluegrass can be expected to perform well in high elevation areas above the timberline, south to 57° north latitude.

Areas north of the Arctic Circle, have not been adequately tested for this cultivar's potential use. These evaluations will be completed within two years.

Within its range of adaptation, 'Gruening' Alpine Bluegrass can be expected to perform well under a wide range of conditions. This species is often found in dry, gravelly, or rocky sites, but testing has shown that this cultivar will also perform well on wetter sites with silty soils.

Seed Characteristics & Production: In general, seed production and characteristics of 'Gruening' Alpine Bluegrass will be similar to 'Nugget' Kentucky Bluegrass. Yields can be expected to be approximately 200 pounds per acre. Shatter can be severe if fields are not harvested at the first indication of maturity.

A major advantage of 'Gruening' Alpine Bluegrass, is also a potentially serious management problem. Because the seed of this cultivar is mature in the last week of June or the first week in July, and inflorescences appear simultaneously with spring recovery in early May, weed control with herbicides will be difficult, if not impossible. This trait may require the use of mechanical weed control until seed is harvested.

'Gruening' Alpine Bluegrass was primarily selected because of its superb hardiness, but also for its erect seed heads and resistance to mildew. Therefore, lodging and disease should not be significant problems.

Increase and Distribution: 'Gruening' Alpine Bluegrass seed will be recognized in breeder, foundation and certified seed classes. Breeder and foundation seed will be grown and maintained for the present time at 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). Interested growers should contact either the Alaska Plant Materials Center or Alaska Seed Growers, Inc.

Approved by:

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