

'Tundra' Glaucous Bluegrass

Poa glauca

Uses: Revegetation Arctic Alaska

Background Information

Glaucous bluegrass can be found on many types of soil—from slightly acidic to slightly basic; in very dry to slightly moist areas; and on gravel, sand, or organic matter.

It is a pioneer species, forming tussocks in disturbed areas. This provides a cover where willows and forbs can become established. (Aiker, et al., 1995).

In the extreme arctic its growth form is short and erect, whereas in other areas of Alaska it is more spreading.

Poa glauca in the arctic grows to about 10 cm tall. It has a basal clump of bluish-green leaves from which arises the panicle of flowers and seeds.



Map from Hultén, 1968.
Used with the permission of Stanford University Press.

Distribution

Poa glauca is found in Alaska on dry slopes and sandy places. It grows throughout most of mainland Alaska (Hultén, 1968). It is also circumpolar, being found in alpine or arctic regions.

'Tundra' is recognized in breeder, foundation, registered, and certified seed classes.

Breeder and foundation seed is maintained by the Alaska Plant Materials Center.

Registered and certified seed is available through the Alaska Seed Growers, Inc.

Cultivar 'Tundra':

Plant Introduction Number: 599251

'Tundra' glaucous bluegrass is a cultivar developed by the University of Alaska Agricultural Experiment Station.

This arctic-adapted cultivar comes from an original collection of 23 plants collected from along the Sagavanirktok River in arctic Alaska in 1969 and 1970 (Mitchell, 1980).

'Tundra' has been extensively tested, for revegetation purposes, at the arctic oil field at Prudhoe Bay, Alaska, since 1972.

'Tundra' is the most reliable grass for growth in the severe arctic conditions found north of the Brooks Range (Mitchell, 1980).

Poa glauca is a short-tufted grass. It is quite variable in its growth form. 'Tundra' parents were selected because of their upright growth habit and life persistence.

Alaska Plant Materials Center

Serving Alaska's needs in production of Alaska native plants

July 23, 2007



'Tundra' Glaucous Bluegrass

'Tundra' for Alaska revegetation in severe arctic regions only:

Permafrost, hot summers, dark winters, dry conditions—these characterize some of the extreme conditions north of the Brooks Range in arctic Alaska. 'Tundra' is ideal for these conditions. With the parent stock coming from this region, 'Tundra' is well adapted. In fact, 'Tundra' does not grow well in other parts of the state.



Poa glauca seed
~1,320,000 seeds per pound

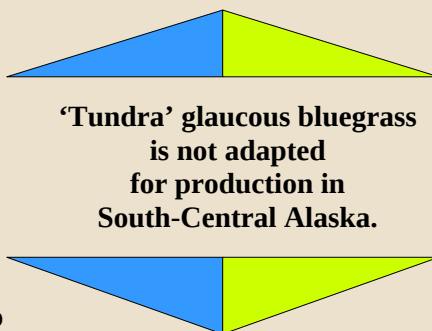
Plant the seed in a shallow furrow along with a mixture of other plants for revegetation of disturbed areas. 'Tundra' is not known to be allelopathic. Its tuft-like growth provides protected areas for natural vegetation to take hold.

To produce 'Tundra'

Clean, weed-free, medium-textured soil (Interior, Alaska) creates the best field to produce 'Tundra'. The soil should be well-drained. Plant seed 1/4 inch deep in rows. Seedlings should emerge within 14 days.

Weeding the rows through the summer enables the seedlings to grow vigorously. 'Tundra' is susceptible to snow mold. A fungicide may need to be used.

Seed is produced the second year of growth. Seed can be harvested and cleaned with normal farm equipment.



'Tundra' Glaucous Bluegrass
production at
North Pole, Alaska.

'Tundra' plant characteristics

Wetness Tolerance	poor
Acidity Tolerance	fair
Seedling Vigor	fair
Yield Potential	moderate
Longevity	medium
Seed Production	low
Drought Resistance	high
Winter Hardiness	high
Root System	bunch

(USDA, NRCS, 2005)

References

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