Nelchina Germplasm spike trisetum

Trisetum spicatum

Selected Class Release "Natural"

Uses: Revegetation Throughout Alaska

Background Information

Spike trisetum is an early colonizer. It can be found in the wild on disturbed sandy or silty soils, on acid or alkaline substrates, and on rocks, gravel, clay, or till Aiken et al., 2001).

Spike trisetum has an excellent forage value—both for livestock and wild animals (Stubbendieck, 1986).

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

Distribution

Trisetum spicatum is found wild throughout Alaska in meadows, woods, and tundra. It is also circumpolar.

Growth

Spike trisetum is a short-lived perennial (~ 5 years). It starts growth after snowmelt, with seeds maturing in September. It reproduces by seed (USDA, 2005).

Spike trisetum grows about 2 feet high. It is a bunch grass. Its roots are fibrous.

The name trisetum refers to its 3 long awns per spikelet.

Nelchina Germplasm spike trisetum seed is maintained by the Alaska Plant Materials Center for commercial production.

Nelchina Germplasm spike trisetum

Plant Introduction Number 9097744

Nelchina Germplasm spike trisetum was collected near Nelchina, Alaska, by Stoney Wright. (Wright, 2005.)

This native grass is a Selected Class Release by the Alaska Plant Materials Center (PMC). This means it has been grown and harvested at the PMC and continues to preserve its excellent performance.

This grass is recommended for use in revegetation because its seedlings are vigorous and provide good initial plant cover.

Nelchina Germplasm spike trisetum is tolerant of many kinds of sites. Fast growing from seed, it merits inclusion in revegetation seed mixes.

Alaska Plant Materials Center
Serving Alaska's needs in production of Alaska native plants

July 23, 2007

Nelchina Germplasm spike trisetum

Nelchina Trisetum for Alaska Revegetation Purposes

Nelchina Germplasm spike trisetum is ideal for revegetation seed mixes for all of Alaska. Since it is tolerant of many different soil types, including acidic or alkaline, Nelchina trisetum can be used in most situations. Its seedlings are vigorous. It has low nutrient requirements.

Nelchina has a high root: shoot ratio. This enables it to be useful for soil building and erosion control (Hardy, 1989). In the wild, spike trisetum helps colonize and stabilize areas. With these characteristics, plus its high forage potential, Nelchina trisetum is a good candidate for inclusion in revegetation or reclamation mixes.

Trisetum spicatum seed.
~2,014,757 seeds per pound

Nelchina Germplasm spike trisetum in production at the Alaska Plant Materials Center, Palmer, Alaska.

Trisetum spicatum
plant characteristics

Wetness Tolerance	**moderate**
Acidity Tolerance	**4.9**
pH, maximum	**7.5**
Seedling Vigor	**medium**
Longevity	**short**
Seed Production	**medium**
Drought Resistance	**medium**
Fire Tolerance	**high**
Palatability	**excellent**

(USDA, 2005)

To Produce Nelchina Germplasm spike trisetum

Conventional farm equipment is needed. A drill for seeding to a depth of ~ 1/2 inch is recommended. Seed germinates in about 10 days if the soil is warm.

Seedling vigor is fast and good. Regular cultivation and spot spraying with herbicide enhances its growth.

Seed shatters moderately easy. Seed can be harvested easily with normal equipment (Burton, 2003).

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References

Burton, Carla and Philip Burton. 2003. *A Manual for Growing and Using Seed from Herbaceous Plants Native to the Northern Interior of British Columbia.* Symbios Research & Restoration, British Columbia.

Hardy BBT Limited. 1989. *Manual of plant species suitability for reclamation in Alberta, 2nd edition. RRTAC Report No. 89-4.* Alberta Land Conservation and Reclamation Council, Edmonton, Alberta.

Hultén, E. 1968. *Flora of Alaska and Neighboring Territories.* © by the Board of Trustees of the Leland Stanford Jr. University, Stanford University Press, Stanford.

Stubbendieck, J. 1986. *North American Range Plants.* University of Nebraska Press, Lincoln, NE.

USDA, NRCS National Plant Data Center, 2005. *Spike Trisetum, Trisetum spicatum.* http://plants.usda.gov.

Wright, S. 2005. *Personal discussion*. Alaska Department of Natural Resources, Division of Agriculture, Plant Materials Center, Palmer, Alaska.