

Cantwell Germplasm downy wildrye

Leymus innovatus (*Elymus innovatus*)

Selected Class Release “Natural”

Uses: Revegetation Interior and Northern Alaska

Background Information

Downy wildrye is a perennial which can grow to heights of 50-80 cm. It is tall, erect, and slender. With its creeping, deep-spreading rhizomes, it can form a sod-like mat on steep slopes (30-60%). It prefers sandy to gravelly soil that is moderately basic (Burton and Burton, 2003).

Its flowering head is a fuzzy, stiff spike. It is a colonizer, being found many times in areas recently burned or disturbed.



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

Distribution

Leymus innovatus is found wild in Alaska in low mountainous areas. It is also native from Wyoming north to the Yukon.

What's in a name?

This grass is officially in the genus *Leymus*, but many people still consider it *Elymus* (ITIS, 2006). It has many common names, which reflect its characteristics. These are: downy wildrye, hairy wildrye, fuzzy spiked wildrye, downy lyme grass, and boreal wildrye (Williams, 1990).

Cantwell Germplasm downy wildrye seed is maintained by the Alaska Plant Materials Center for commercial production.

Cantwell Germplasm

Plant Identification Number: 9097733

Cantwell Germplasm downy wildrye was collected by Stoney Wright in 1995 (Wright, 2006). Cantwell is along the Parks Highway near Denali National Park. This mountainous, meadow area produces some of the most winterhardy grasses in Alaska.

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. It spreads rapidly.



Alaska Plant Materials Center

Serving Alaska's needs in production of Alaska native plants

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Cantwell for Alaska Revegetation Purposes

Cantwell Germplasm downy wildrye is ideal for seed mixes for revegetation. Klebasadel (1993) grew many wildryes in a field near Palmer, Alaska, to compare their winter hardiness. Downy wildrye had excellent winter survival.

The PMC views Cantwell Germplasm as one of the hardiest grasses we have in cultivation. Because it can grow on steep slopes it is a grass useful for revegetation of coal mines, steep roadgrades, and mountainous disturbed areas in interior and northern Alaska. In lab tests, it has grown well on soils saturated with oil, so it may also be good for revegetating disturbances where hydrocarbons have spilled (Burton and Burton, 2003).

It is not a preferred food for birds or other animals, but does provide cover.



Leymus innovatus seed.
~122,512 seeds per pound

To Produce Cantwell

Conventional farm equipment is needed. A drill for seeding at a depth of ~1/2 inch is recommended.

Burton and Burton (2003) state that no pre-germination treatment is recommended and that the seeds germinate best in cooler soils. Seedling vigor is fast and good. It grows best with irrigation, cultivation of weeds, and fertilization.

Seed can be harvested easily with normal equipment.

Downy Wildrye characteristics

Wetness Tolerance	moderate
Acidity Tolerance	good
Seedling Vigor	good
Yield Potential	high
Longevity	medium
Seed Production	high
Drought Resistance	good
Winter Hardiness	excellent
Palatability	poor



Cantwell in production at the Alaska Plant Materials Center, Palmer.

References

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