



# Wainwright Germplasm slender wheatgrass

## *Elymus trachycaulus* (*Agropyron pauciflorum*)

### Selected Class Release “Natural”

## Uses: Revegetation and Forage

## Southcentral and Interior Alaska

### Background Information

Slender wheatgrass is a colonizer. It can be found in the wild on moist to dry soils, under trees and in full sun, and on acid or alkaline substrates.

It has been used for reclamation of oil spills, coal mine spills, alpine tundra, roadsides, and brackish environments (USDA, NRCS, 2000).

Slender wheatgrass is an important food for wildlife. It has an excellent forage value for sheep and cattle (Stubbendieck, 1986).



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

### Distribution

*Elymus trachycaulus* (originally identified as *Agropyron pauciflorum*) is found wild in Alaska in meadows, on hillsides, and along riverbanks. It is also native to much of North America.

**Wainwright is the simplest name to call this grass!**

*Elymus trachycaulus* (Link) Gould ex Shinnars ssp. *trachycaulus*  
Wainwright Germplasm slender wheatgrass  
is the entire name for this grass.

### Growth

Slender wheatgrass is a short-lived perennial (~ 5 years.) It starts growth after snowmelt, with seeds maturing in September. It reproduces both by seed and tillers.

Slender wheatgrass grows about 1 meter high. Its roots are dense and fibrous. Its leaves are slender with a narrow white band on the margins.

Wainwright Germplasm slender wheatgrass seed is maintained by the Alaska Plant Materials Center for commercial production.

Seed is also available through the Alaska Seed Growers, Inc.

### Wainwright Germplasm

Plant Identification Number: 9097663

Wainwright Germplasm slender wheatgrass was collected at Fort Wainwright, Alaska, in 1994 (Wright, 2004).

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 reclamation and revegetation because its seedlings are vigorous and provide good initial plant cover.

Wainwright is tolerant of many kinds of sites. Alaska Highway Drainage Manual (2001) earmarks Wainwright as an ingredient for grass mixtures on Alaskan Highways in an average moisture soil in Southcentral and Interior.

Other sources praise slender wheatgrass as being one of the best grasses for reclamation because of its tolerance to alkaline or saline conditions (USDA, NRCS, 2000).



# Wainwright Germplasm slender wheatgrass

## Wainwright for Alaska Revegetation Purposes

Wainwright is ideal for seed mixes for reclamation. Its seedlings are vigorous. Because of its short life, Wainwright helps colonize and stabilize the area. It then disappears so other plants have a chance to become established. Its tolerance of acidity is an important characteristic for mine reclamation.

## Wainwright for Forage Purposes

Wainwright makes a good quality hay. With excellent palatability, it is very nutritious for livestock. Slender wheatgrass is the preferred forage for many wild animals, such as elk and bighorn sheep (USDA-NRCS, 2000).



*Elymus trachycaulus* seed.  
~159,000 seeds per pound

## To Produce Wainwright

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

Seedling vigor is fast and good. It grows best with irrigation, cultivation of weeds, and fertilization.

Seed can be harvested easily with normal equipment. Seed production is high for the short life span of mature Wainwright (Smith, 1996).



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

## Wainwright plant characteristics

<b>Wetness Tolerance</b>	<b>moderate</b>
<b>Acidity Tolerance</b>	<b>good</b>
<b>Seedling Vigor</b>	<b>good</b>
<b>Yield Potential</b>	<b>high</b>
<b>Longevity</b>	<b>short</b>
<b>Seed Production</b>	<b>high</b>
<b>Drought Resistance</b>	<b>medium</b>
<b>Winter Hardiness</b>	<b>moderate</b>
<b>Palatability</b>	<b>excellent</b>

## Interesting Notes

According to Moerman (2002) slender wheatgrass was used by the Navaho as a veterinary aid for their dogs. The leaves were given to dogs to cause vomiting.

Both the Navaho and the Thompson used this slender wheatgrass as fodder for their horses (Moerman, 2002).

**Peggy Hunt & Stoney Wright**  
**State of Alaska**  
**Department of Natural Resources**  
**Division of Agriculture**  
**Plant Materials Center**  
**5310 S. Bodenbug Spur Rd.**  
**Palmer, AK 99645-9706**  
**Phone: (907) 745-4469**

## References

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