

Solomon Germplasm thickspike wheatgrass

Elymus macrourus (*Agropyron macrourum*)

Selected Class Release “Natural”

Uses: Revegetation Throughout Alaska

Match the species and seed source to the intended planting site

For best growth and revegetation,
plants native to an area create a more permanent habitat.

Solomon Germplasm thickspike wheatgrass Plant Identification Number: 9097727

Solomon Germplasm thickspike wheatgrass comes from Solomon, Alaska (August 10, 1995). Originally identified as *Agropyron macrourum*, the most current scientific name is *Elymus macrourus*.

The seed from the parent (Solomon) plant is grown and harvested at the Plant Materials Center and by other seed growers.

Some agencies require the original seed to be collected within a certain circumference around where the revegetation will take place.

An example of this is at Denali National Park. They use a locally collected seed mix of a native legume (*Hedysarum alpinum*) and wheatgrass (*Elymus macrourus*). By planting both species at the same time, Densmore (2000) states that the resulting product can withstand mowing and light scraping—as well as resist invasive weeds.

This same method is practical throughout Alaska where the seed source material is not so strictly regulated.

Roadsides which are well-drained, nutrient-poor, sandy, or gravelly can successfully be established in about 5 years with a mix of Solomon Germplasm thickspike wheatgrass and alpine sweetvetch (*Hedysarum alpinum*).

Background and Growth

Elymus macrourus is native to Alaska. It is found on open slopes, gravel or sand bars, and earth embankments in tundra and woodlands (Hultén, 1968).



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

Thickspike wheatgrass is usually found on well-drained soils. It is a long-lived perennial.

It reproduces by seed or (rarely) vegetatively via rhizomes. It is self-fertile (Sullivan, 1993).

This grass grows in clumps and can grow to about 3 feet tall. Its leaf blades are narrow, mostly green but sometimes bluegreen. With its seed spike, it is a beautiful grass.

**Solomon Germplasm
thickspike wheatgrass seed
is maintained by the
Alaska Plant Materials Center
for commercial production.**

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

Wheatgrass in the Wild—

- is considered a colonizer and an indicator of disturbed sites (Tsvelev, 1983);
- is drought-tolerant, long-lived, and forms sod;
- can be found on riverbanks subject to fluctuating erosion;
- plays an important part in natural revegetation—as a nurse plant for other species.

Alaska Plant Materials Center

Serving Alaska's needs in production of Alaska native plants

Jan. 9, 2008



Solomon Germplasm thickspike wheatgrass

Solomon Germplasm thickspike wheatgrass for Alaska Revegetation Purposes

This wheatgrass is an important part of seed mixes for revegetation. It is quick to germinate and become established. This enables it to act like a nurse plant for slower growing plant species (Sullivan, 1993).

Thickspike wheatgrass is native to Alaska. Because of this, organizations (like the National Park Service) that want to keep genotypic revegetation plant species, will use *Elymus macrourus*.

Solomon Germplasm thickspike wheatgrass is well suited to revegetate roadsides, where the soil is dry. Wildlife and domestic animals eat this grass.



Solomon Germplasm thickspike wheatgrass production field at the Plant Materials Center in Palmer, Alaska.



Elymus macrourus seed
~170,174 seeds per pound



To Produce Solomon:

Solomon Germplasm thickspike wheatgrass grows better in fine-textured soils. Drill it about 1/2 inch deep.

Light irrigation will help its growth. Keep weeds controlled. Seeding can begin either in early spring or fall.

Thickspike wheatgrass has an approximately 8 inch seed head, making it easy to harvest with normal farm devices. Its seed spike ripens in late summer, causing it to be one of the last grasses harvested.

Solomon Germplasm thickspike wheatgrass plant characteristics

Wetness Tolerance	moderate
Acidity Tolerance	moderate
Seedling Vigor	good
Yield Potential	high
Longevity	long
Seed Production	moderate
Drought Resistance	good
Winter Hardiness	moderate
Palatability	fair

(Sullivan, 1993).

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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