

Paxson Germplasm alpine sweetvetch

Hedysarum alpinum

Selected Class Release “Natural”

**Uses: Revegetation
Southcentral, Interior,
Western, Subarctic Alaska**



Background Information

Hedysarum alpinum is in the pea family. It grows wild in Alaska in many types of areas. Some of the places it can be found include sandy river shores, dry slopes, meadows, and roadways at high and low elevations (Williams, 1990). Hultén (1968) includes a few more habitats where it grows—spruce forests, rocky slopes, and gravel bars.

Its purple/blue flowers bloom in June and July with the seedpods ripening unevenly in July and August. As a perennial legume, it has deep tap roots.

For many Native Alaskan Peoples these roots are an important source of food. Anore Jones (1983) describes in detail how the Iñupiat harvested, stored, and ate the “Masru”. Another common name for *Hedysarum alpinum* is “Eskimo Potato”. This also refers to its food use for arctic peoples.

The roots are also eaten by mice and bears (Jones, 1983). One way to find the roots is to search mice food caches.



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

Distribution

According to Hultén (1968), *Hedysarum alpinum* can be found throughout most of Alaska, in Siberia, and in boreal Canada.

Paxson Germplasm alpine sweetvetch seed is maintained by the Alaska Plant Materials Center for commercial production.

Paxson Germplasm

Plant Identification Number: 9097730

Paxson Germplasm alpine sweetvetch was collected in 1995 by Stoney Wright. Paxson is on the Richardson Highway, north of Glennallen, Alaska (Wright, 2006). This mountainous, dry area is home to many winter-hardy plants.

This native legume 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 exhibit excellent performance.

This legume is recommended for use in revegetation because not only are its seedlings vigorous and able to survive in dry areas, but they also fix nitrogen, enhancing the soil for future plant succession.



Alaska Plant Materials Center

Serving Alaska's needs in production of Alaska native plants

July 17, 2007



Paxson Germplasm alpine sweetvetch

Paxson Germplasm alpine sweetvetch for Alaska Revegetation Purposes

Paxson grows easily and quickly in most situations, although slower than most grasses used for revegetation purposes. When the grass seed mix is spread evenly and Paxson is at least 5% by weight of the seed mix, this sweetvetch should perform vigorously and eventually contribute to the revegetation results.

Its long inflorescence of purple flowers adds to the visual appeal of roadside revegetation projects. A pea-like nitrogen fixer, it enriches the soil, contributing to a lower maintenance, longer lived, quality revegetation effort.



Hedysarum alpinum seed.
~239,114 seeds per pound

To Produce Paxson

Conventional farm equipment is needed. A drill for seeding to a depth of ~1/4 inch is recommended.

Seeds germinate best with a light scarification. Seed may be sown in either fall or spring. A fall seeding replicates natural conditions in Alaska and tends to encourage faster germination.

Cultural practices of light irrigation, cultivation of weeds, and a low nitrogen/high phosphorous fertilization should enhance growth (Smith and Smith, 1997).

When seed pods start cracking, harvest pods by hand or with special settings on a combine. Let pods dry, then clean seeds with a debearder and screens (Smith and Smith, 1997).



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



References

- Hultén, E. 1968. *Flora of Alaska and Neighboring Territories*. © by the Board of Trustees of the Leland Stanford Jr. University, Stanford University Press, Stanford.
- Jones, Anore. 1983. *Nauriat Nigiñaquaat, Plants That We Eat*. Traditional Nutrition Project. Maniilaq Association, Kotzebue, Alaska, pp. 114-118.
- Smith, S.R., S. Smith (eds.) 1997. *Native Grass Seed Production Manual (including selected forbs)*. A Cooperative Publication of the Plant Materials Program, USDA, NRCS, Ducks Unlimited Canada, Manitoba Forage Seed Association, and the University of Manitoba. Manitoba, Canada, pp. 111-112.
- Williams, T.Y. 1990. *Hedysarum alpinum* var. *americanum*. In Fire Effects Information System, [Online]. USDA, Forest Service, Rocky Mountain Research Station, Fire Sciences Lab (Producer). Available: <http://www.fs.fed.us/database/feis> [2006, October 25].
- Wright, S. 2006. *Personal discussion*. Alaska Department of Natural Resources, Division of Agriculture, Plant Materials Center, Palmer, Alaska.

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