



Tin City and Adak Germplasms arctic bluegrass

Poa arctica: viviparous form

Selected Class Releases "Natural"

Uses: Revegetation Throughout Alaska

Adak for Aleutians and the Alaskan Peninsula

Tin City for the rest of Alaska

Background Information for Arctic Bluegrass

Arctic bluegrass is circumpolar.
It is often a colonizer of disturbed habitats.

In the wild, it is found as raised clumps on gravel, wet meadows, and soils near wetlands.

It is a cosmopolitan species, being able to grow on both acidic outcrops and calcareous substrate. It can be found on rocks, gravel, soil, moss, sand, silt, and clay (Aiken, et al., 1995).

Arctic bluegrass is a slender grass. Its height at maturity is between 1 and two feet. Its leaves are found mostly at the base. It is rhizomatous.

Adak Germplasm

Plant Identification Number: 9097852
Adak Germplasm arctic bluegrass was collected on Adak Island, Alaska, in 1993 by Stoney Wright, Alaska Plant Materials Center (PMC).

Tin City Germplasm

Plant Identification Number: 9097737
Tin City Germplasm arctic bluegrass was collected near Nome, just south of the Arctic Circle in 1995 by Stoney Wright.

These native grasses are **Selected Class Releases** by the PMC. This means they have been grown and harvested at the PMC and continue to preserve excellent performance.

Adak and Tin City are recommended for use in Alaska revegetation because the plants are vigorous and provide good initial plant cover.



Map from Hultén, 1968.
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Distribution

The viviparous form of *Poa arctica* can be found throughout Alaska. Adak Germplasm was collected on the Aleutians. Tin City Germplasm was collected near Nome.

They are both the same species—the difference is the environmental conditions where they were collected.



Adak and Tin City Germplasms
arctic bluegrass propagules
are maintained by the
Alaska Plant Materials Center
for commercial production.

Alaska Plant Materials Center

Serving Alaska's needs in production of Alaska native plants

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Tin City and Adak Germplasm arctic bluegrass



Adak Germplasm arctic bluegrass

These collections of arctic bluegrass are viviparous. Some grasses in cold climates have a reproduction strategy for survival that does not rely on seeds. The grasses that do this are usually ones that grow in harsh environments with a very short flowering season.

Instead of producing seeds, a miniature seedling is formed in the seed head—in place of the seed.

The plantlets remain attached to the mother plant until multiple leaves are formed by cell division and differentiation.

Another name for this plantlet is a viviplet. It is formed asexually and contains all the genetic information from its parent. These viviplets are hardy. When completely formed, they fall off from the mother plant and root themselves in the soil (Wright, 2005).



Revegetation Notes

Geese graze specifically on *Poa arctica*. This may mean that in terms of restoration, *Poa arctica* will attract geese to the project—thus creating a more diverse habitat (Aiken et al., 1995).

To Produce Adak and Tin City for Alaska Revegetation

Plant these propagules in a medium wet, loamy soil.

Transplant vigor is fast and good. They grow best with irrigation, cultivation of weeds, and fertilization.

Poa arctica: viviparous form

Wetness Tolerance	moderate
Acidity Tolerance	good
Seedling Vigor	good
Yield Potential	fair
Longevity	good
Drought Resistance	medium
Winter Hardiness	good



Tin City in production at the Alaska Plant Materials Center, Palmer.

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References

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