



'Caiggluk' Tilesius' Wormwood (Stinkweed) *Artemisia tilesii*

Uses: Revegetation Throughout Alaska

Background Information

Artemisia tilesii is a perennial, non-woody sagebrush species. It is a composite with deeply divided fuzzy leaves.

In the wild, or on revegetation sites, it grows from 56 to 24 inches high. It has been found on many different soil types. It prefers sun.

The common name, stinkweed, refers to its smell when the leaves are crushed. The smell is pleasant, to some, and powerful enough to cover the smell of fish (Moerman, 2002).

Birds and small mammals use stinkweed for shelter and the seed for food. Pikas harvest and store the seed (ADFG, 2006).



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

Distribution

Artemisia tilesii is found throughout Alaska (Hultén, 1968). It also can be found in Canada, Siberia, and as far south as Oregon on the Pacific side of the continental divide.

'Caiggluk' Tilesius' Wormwood is recognized in breeder, foundation, registered, and certified seed classes.

Breeder and foundation seed is maintained by the Alaska Plant Materials Center. Registered and certified seed is available through the Alaska Seed Growers, Inc.

Cultivar: 'Caiggluk'

Plant Introduction Number: 540424

'Caiggluk' Tilesius' wormwood is a cultivar developed by the Alaska Plant Materials Center in Palmer. It was released in 1989 as a reclamation and erosion control species (Wright, 1991).

'Caiggluk' was originally collected from a single plant near Clam Gulch, Alaska (near Homer), in 1974. This parent material was increased and then tested throughout Alaska from 1976 to the present.

'Caiggluk' is a valuable aid to revegetation—providing needed plant diversity for long-term results. It is well-adapted to sandy places and does well on disturbed areas. It has a high tolerance for both acid and basic soils, and can grow on toxic mine spoils (Wright, 1989).

Ethnobotany

Caiggluk is the Yupik dialect for Tilesius' wormwood (Wright, 1989). This species has been used in traditional remedies by many Alaska Natives. The common name of wormwood comes from its use as a disinfectant (Moerman, 2002).



'Caiggluk' Tilesius' Wormwood

'Caiggluk' for Alaska Revegetation Purposes

This plant was the first broadleaf, herbaceous species to be brought into large-scale production for revegetation purposes in Alaska. The addition of 'Caiggluk' to revegetation seed mixes allows the final result to contain more diversity and beauty.

'Caiggluk' tolerates petroleum hydrocarbon mixtures and atmospheric acidity (Aiken, et al., 1999). Its leaves have also been found to neutralize acid rain droplets (Adams, et al., 1984).

'Caiggluk' is an easy plant to grow. Its basic requirements are simple: it grows well with grasses and weeds, can adapt to many different types of sites, and will tolerate pH from 2 to 9 (Aiken, et al., 1999). This indicates it may be important for bio-remediation.



Artemisia tilesii seed
~ 2,483,242 seeds per pound

If you are interested in producing 'Caiggluk' Tilesius' wormwood

The field needs to be as free of weeds as possible. Tilling is not suggested because it will bring up a new crop of weed seeds from the buried weed seed bank.

'Caiggluk' seed is very small. Either drill seed 1/4 inch deep or loosely incorporate it on top of the soil with a light raking or harrow.

The plants should begin producing seed in two years. It is a late maturing crop, so monitoring is necessary to keep it from shattering due to fall winds and rains. Pest control of thrips may be necessary. Standard harvesting and cleaning equipment works well for seed processing.



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



'Caiggluk' in field production
at the Alaska Plant Materials
Center in Palmer, AK.

'Caiggluk' plant characteristics

Wetness Tolerance	fair
Acidity Tolerance	good
Seedling Vigor	good
Yield Potential	high
Longevity	long
Seed Production	high
Drought Resistance	high
Winter Hardiness	good
Root System	rhizomes

References

- Adams, C.M., Dengler, N.G., and Hutchinson, T.C. 1984. *Acid rain effects on foliar histology of Artemisia-tilesii*. Can. J. Bot. 62: 463-474.
- S.G. Aiken, M.J. Dallwitz, L.L. Consaul, C.L. McJannet, L.J. Gillespie, R.L. Boles, G.W. Argus, J.M. Gillett, P.J. Scott, R. Elven, M.C. LeBlanc, A.K. Brysting and H. Solstad. 1999 onwards. *Flora of the Canadian Arctic Archipelago: Descriptions, Illustrations, Identification, and Information Retrieval*. Version: 29th April 2003. <http://www.mun.ca/biology/delta/arctic/>
- ADF&G (Alaska Department of Fish and Game). 2006. *Native Alaskan and Exotic Plants Used by Wildlife*. www.wc.adfg.state.ak.us.
- Hultén, E. 1968. *Flora of Alaska and Neighboring Territories*. © by the Board of Trustees of the Leland Stanford Jr. University, Stanford University Press, Stanford.
- Moerman, D. 2002. *Native American Ethnobotany*. Timber Press, Portland, Oregon.
- Wright, S. 1991. *Registration of 'Caiggluk' Tilesy Sagebrush*. Crop Science 31: 1380.
- Wright, S. 1989. *Notice of Naming and Release of 'Caiggluk' Tilesy Sage*. Alaska Department of Natural Resources, Division of Agriculture, Plant Materials Center, Palmer, Alaska.