

Alaska Plant Materials Center

Field Guide

Revegetation Plant Identification

1st Edition 2014

R o b e r t C a r t e r



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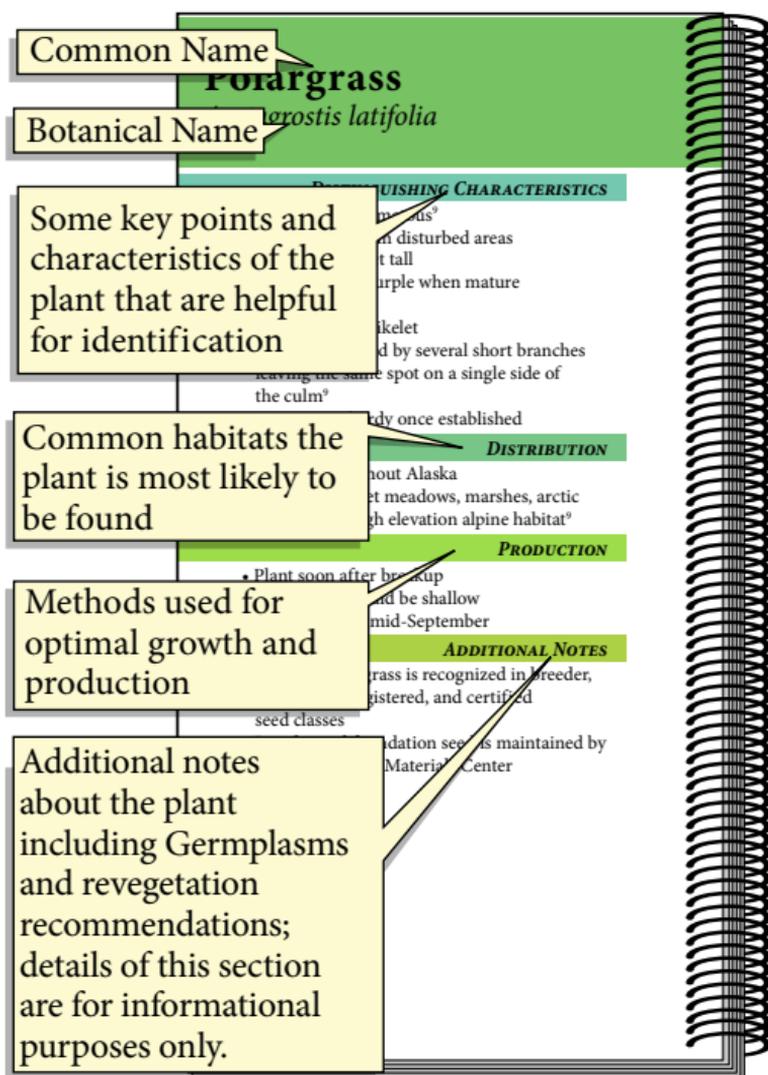
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HOW TO USE THIS GUIDE



All species are in alphabetical order by **Botanical name**.

Grass Chapter



Stock Photo, Alaska Plant Materials Center, DNR

Photo(s) of the plant



Seed Stock Photo, Alaska Plant Materials Center, DNR

Photo of seeds

GLOSSARY

Alternate: Leaves occurring one at a node.³

Annual: A plant that produces seed and dies within one year of germinating from seed.³

Achene: A small, dry, indehiscent fruit with a single seed, attached to the ovary wall at a single point.

Awn: A slender, bristle-like appendage usually at the tip.²

Basal: Situated at, or pertaining to, the base.³

Biennial: A plant that flowers and takes two years to complete its biological life.

Bract: A small leaf-like structure below a flower.²

Callus: Hardened base of the lemma.

Calyx: The outer parts of a flower composed of usually leaf-like parts called sepals.²

Culm: Aerial stem of grass; characterized by its structure consisting of a series of solid nodes and hollow or solid internodes.

Elliptic: Oval or oblong with rounded ends and more than twice as long as broad.²

Entire: Leaf margins that are not cut or toothed² or having a margin devoid of any indentations, teeth, or lobes.³

Floret: A small flower; an individual flower within a dense cluster, as a grass flower in a spikelet.

Germination: The development of a seed into a plant.³

Glume: One of a pair of bracts found at the base of a spikelet and not containing pistils or stamens.

Herbaceous: Having the characteristics of an herb,³ non-woody.

Indehiscent: Remaining closed at maturity.

Inflorescence: The flowering part of the plant.²

Invasive: An alien species whose introduction does, or is likely, to cause economic, environmental harm, or harm to human health (Presidential Executive Order 13112, 1999).

Lanceolate: Shaped like a lance; broadest toward the base and narrowed to the apex, several times longer than wide.³

Leaf-nodes: A knob or joint of a stem from which leaves may arise. A node will contain one or more buds.³

Leaflet: A subdivision of a compound leaf.³

Lemma: The lower of the two bracts which subtend a grass floret.

Ligule: A thin, membranous outgrowth or fringe of hairs from the base of the blade of most grasses.²

Lobe: A rounded projecting segment, forming part of a larger structure. A lobed leaf is one whose indentations are large.³

Margin (of a leaf): The edge of a leaf. They can be smooth, serrated, or toothed, as well as lobed or entire.

Nerve: Prominent vascular vein of an organ, usually arranged parallel to the long axis of the organ and not noticeably branched.

GLOSSARY

Ob lanceolate: Having a rounded apex and a tapering base.

Obovate: Inversely ovate; having the shape of the longitudinal section of an egg, with the broad end at the top.³

Opposite: Arranged on the same node at the opposite side of the stem.²

Palmately: Having lobes radiating from a common point.

Panicle: A branched, racemose inflorescence with flowers maturing from the bottom upwards.

Perennial: A plant that lives for more than two years. Usually flowers each year.

Perigynia: A scale-like bract enclosing the pistil.

Pinnate: Arising from several different points along the sides of an axis.²

Pistil/Pistillate: The female, ovule-bearing organ of a flower, including the stigma, style, and ovary.

Raceme: An inflorescence with flowers borne along a more or less elongated axis with the younger flowers nearest the top.³

Rachis: A main axis or shaft, such as the main stem of an inflorescence.

Rhizomatous: Having rhizomes.²

Rhizome: Underground stem, usually lateral, sending out shoots above ground and roots below.²

Scarification: Process of breaking, scratching, or altering the seed coat through chemical or thermal methods to make it permeable to water and gas.

Septa/Septum: A dividing wall or membrane in a plant structure.

Sheath: A protective covering; lower part of leaf enveloping the stem.³

Simple: Of only one part, not completely divided into separate segments.³

Spike: A long flower cluster attached directly to the stalk.³

Spikelet: A small spike of a large one; a subdivision of a spike; as the spikelets of grasses.³

Sprig: A small division of a plant taken from a live plant that can be used to grow a new plant.

Stamen: Pollen-producing organ of a flower; the male sex organ of a flower.

Taproot: The primary root continuing the axis of the plant downward. Such roots may be thick or thin.³

Toothed: Sawteeth-like projections on the margins of the blade.²

Umbel: An inflorescence which consists of a number of short flower stalks which spread from a common point; somewhat like umbrella ribs.

Viviparous: A type of reproduction where the offspring begins growing on the maternal plant before dispersal.

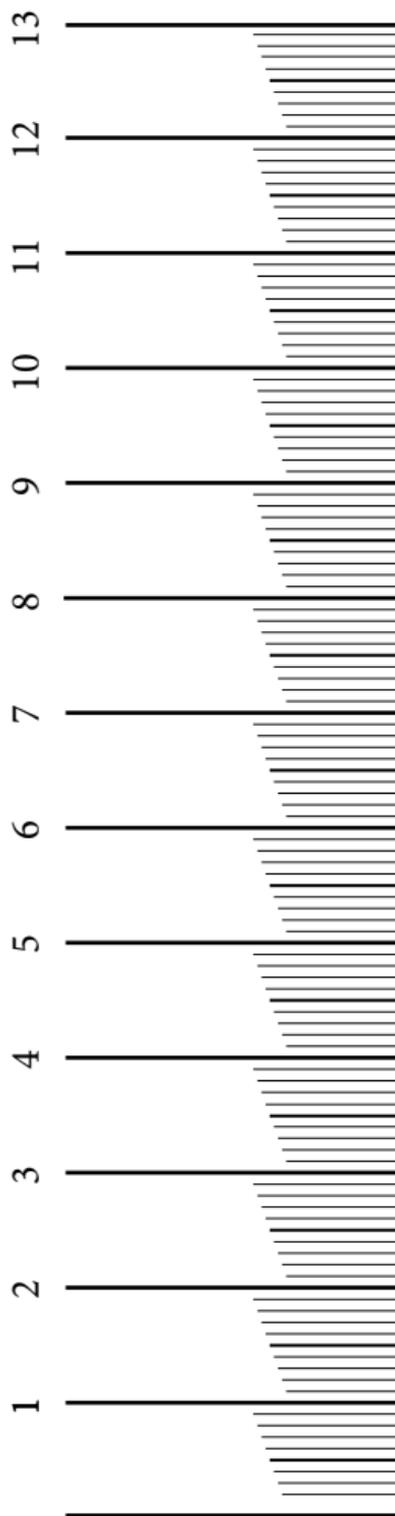
Weed: A plant species that is, or may become, destructive and difficult to control.

TOOLS

INCHES

	0	U.S. to Metric Conversion
		<hr/>
		Length
		<hr/>
		1 in. = 2.54 cm
		1 ft. = 0.3048 m
		1 yd. = 0.914 m
		1 mi. = 1.69 km
		Area
		<hr/>
		1 sq. ft. = 929 cm ²
		1 ac. = 4,046 m ²
		1 sq. mi. = 2.59 km ²
		Weight
		<hr/>
		1 lb. = 0.454 kg
		1 oz. = 28.349 gm
		Volume
		<hr/>
		1 qt. = 0.946 l
		1 gal. = 3.785 l
		Temperature
		<hr/>
		°F to °C: (F-32) (0.555)
		°C to °F: (C x 1.8) + 32
	5	

CENTIMETERS



Polargrass

Arctagrostis latifolia

DISTINGUISHING CHARACTERISTICS

- Perennial, rhizomatous⁹
- Grows up to 1½ feet tall
- Inflorescence is a concentrated panicle with the longest branch growing up to 1½ inches
- Spikelets turn purple when mature and have a single floret
- Wide, lax leaves grow up to ½ inch wide
- Easily recognized by several short branches leaving the same spot on a single side of the culm⁹

DISTRIBUTION

- Distributed throughout Alaska
- Pioneer species in disturbed areas
- Common in wet meadows, marshes, arctic tundra, and high elevation alpine habitat⁹
- Very winter hardy once established
- Does not perform well in the Aleutians

PRODUCTION

- Plant early spring for vigor
- Seed depth should be shallow
- Seed is mature late summer
- Not a prolific seed producer
- Seed germination can be sporadic

ADDITIONAL NOTES

- ‘Kenai’ and ‘Alyeska’ are recognized as improved cultivars of polargrass
- ‘Kenai’ is recommended for revegetation mixes from lowlands to alpine environments, but ‘Alyeska’ is recommended for northernmost regions of Alaska
- Breeder and foundation seed is maintained by the Alaska Plant Materials Center

Grasses



Stock Photo, Alaska Plant Materials Center, DNR



Steve Hurst, USDA-NRCS Plants Database

American Sloughgrass

Beckmannia syzigachne

DISTINGUISHING CHARACTERISTICS

- Annual or short-lived perennial bunchgrass
- Grows up to 3 feet tall
- Inflorescence is a narrow, interrupted panicle⁹ with a double row of densely compacted, single-flowered spikelet on 1 side of panicle branches¹²
- The seed with hull attached is nearly flat and disk-like in shape
- Commonly confused with introduced barnyard grass (*Echinochloa crusgalli*), but its growth form is more upright and less spreading¹²

DISTRIBUTION

- Distributed throughout much of Alaska
- Occurs on shores, marshes, wet meadows, and ditches⁴
- Native grass to wet riparian zones¹⁴

PRODUCTION

- Prefers moist soil
- Plant early for best establishment
- Flowers in June and seed ripens from July-August
- Plants can last up to 4 years
- Susceptible to powdery mildew

ADDITIONAL NOTES

- Used for wetland reseeding and some pasture development in Alaska
- ‘Egan’ is a cultivar developed and released by the Alaska Plant Materials Center in 1986 for wetland reclamation
- Breeder and foundation seed is maintained by the Alaska Plant Materials Center

Grasses



Shu Suehiro, botanic.jp



Sheri Hagwood, USDA, NRCS PLANTS Database



Seed Stock Photo, Alaska Plant Materials Center, DNR

Alaska Brome

Bromus sitchensis

DISTINGUISHING CHARACTERISTICS

- Perennial, loosely tufted
- Grows up to 5 feet tall
- Blades are flat and grow up to 16 inches long and $\frac{3}{4}$ inch wide
- Inflorescence is an open panicle, spreading and often drooping
- Spikelets are $1\frac{1}{2}$ inches long and strongly flattened
- Lacks rhizomes, unlike smooth brome

DISTRIBUTION

- Found in coastal areas in South East Alaska and the Aleutian Islands
- Occurs in forest borders, open areas, roadsides, and disturbed areas along the coast⁹
- Tolerates drought and is resistant to high concentrations of iron in soils

PRODUCTION

- Can be debarbed prior to planting
- Should be over seeded as germination is sporadic
- Irrigation, weed management, and fertilizer enhance production
- Seed ripens in September

ADDITIONAL NOTES

- Valued in revegetation and land reclamation because it develops rapidly and is quick to establish
- The Alaska Brome is also called Sitka brome and Hakari brome and is extremely winter-hardy

Grasses



Shu Suehiro, botanic.jp



Steve Hurst, USDA, NRCS PLANTS Database



Steve Hurst, USDA, NRCS PLANTS Database

Bluejoint Reedgrass

Calamagrostis canadensis

DISTINGUISHING CHARACTERISTICS

- Cool-season grass
- Perennial, rhizomatous, loosely tufted⁹
- Rhizomes are shallow and fibrous
- Can reach a height of 6 feet within 6 weeks in Alaska
- Panicle inflorescence grows up to 9½ inches long and often contracted when immature; when mature it is open, purple, and nodding
- Reproduces by rhizomes or seed

DISTRIBUTION

- Distributed throughout Alaska³
- Grows in a wide range of habitats and soils
- Commonly found in open meadows, open forested areas, willow thickets, shores of lakes, ponds, and bogs⁹

PRODUCTION

- Needs moist soil for establishment
- Very small seed does not need to be planted deeply
- Plant between May 20-July 10
- Seed matures in late August/early September

ADDITIONAL NOTES

- ‘Sourdough’ bluejoint reedgrass is recognized in breeder, foundation, registered, and certified seed classes
- Breeder and foundation seed is maintained by the Alaska Plant Materials Center
- Available as natural mulch for revegetation uses

Grasses



Stock Photo, Alaska Plant Materials Center, DNR



Seed Stock Photo, Alaska Plant Materials Center, DNR

Nootka Reedgrass

Calamagrostis nutkaensis

DISTINGUISHING CHARACTERISTICS

- Perennial, tufted grass with short rhizomes⁹
- Grows up to 4 feet tall
- Purplish-brown flower spike grows up to 10 inches long
- Leaves grow up to 2 feet long and are flat and erect with sharp margins
- Easily distinguished by straight callus hairs on lemma

DISTRIBUTION

- Found in the Aleutian Islands, South East, and South Central Alaska
- Grows in freshwater coastal regions, bogs, marshes, and wetlands

PRODUCTION

- Seed to a depth of ¼ inch or sow on surface
- Soil must be moist for proper establishment
- Light irrigation, weed control, and fertilizer enhance growth
- Seed is mature when inflorescences and seeds are brown
- Prone to shattering

ADDITIONAL NOTES

- Recommended for revegetation due to seedling vigor and wet condition survival
- Pioneer Peak Germplasm seed is maintained by the Alaska Plant Materials Center for commercial production
- Nootka reedgrass is also called Pacific reedgrass

Grasses



pedropointheadlands.org



pedropointheadlands.org



Seed Stock Photo, Alaska Plant Materials Center, DNR

Tufted Hairgrass

Deschampsia cespitosa

DISTINGUISHING CHARACTERISTICS

- Long lived perennial that forms in tufts
- Open nodding panicle inflorescence
- Flowering head branches are open and hair-like with 2 florets per spikelet
- Leaves are mostly basal and grow up to 5 inches long and $\frac{3}{4}$ inch wide

DISTRIBUTION

- Grows throughout Alaska except at very high elevations⁹
- Found in a wide variety of soil conditions, but most often grows in silt and gravel

PRODUCTION

- Seed should be buried or spread and soil packed for good seed to soil contact
- Life expectancy of up to 20 years
- Harvest occurs in August
- Mature seed head turns purple

ADDITIONAL NOTES

- Excellent for revegetation of subalpine, alpine, and mountainous meadows
- Relatively resistant to toxic waste, therefore often used to reclaim mining areas
- 'Nortran' is a cultivar recognized in breeder, foundation, registered, and certified seed classes
- Breeder and foundation seed for 'Nortran' is maintained by the Alaska Plant Materials Center

Grasses



Stock Photo, Alaska Plant Materials Center, DNR



Julie Makin, www.wildflower.org



Steve Hurst, ARS Systematic Botany and Mycology Lab USDA.gov

Downy Wildrye

Elymus innovatus

DISTINGUISHING CHARACTERISTICS

- Perennial, rhizomatous, and occasionally loosely tufted⁹
- Grows up to 6 feet tall
- Spike inflorescence grows up to 3 inches long with opposite spikelets in pairs or groups of 3
- Lemma grows up to $\frac{3}{4}$ inch long with abundant hairs

DISTRIBUTION

- Found throughout Alaska in open woods, tall willow communities, gravels from river drainage, and at disturbed areas⁹

PRODUCTION

- Seeding depth of $\sim\frac{1}{2}$ inch is recommended
- Plant in early summer
- Seed germinates best in cooler soils
- Grows best with irrigation, cultivation of weeds, and fertilization

ADDITIONAL NOTES

- Also known as boreal wildrye, hairy wildrye, fuzzyspike wildrye, and downy ryegrass
- Recommended for use in revegetation because its seedlings are vigorous, provide good initial plant cover, and spread rapidly
- Cantwell Germplasm downy wildrye seed is maintained by the Alaska Plant Materials Center for commercial production
- One of the hardiest grasses in cultivation at the Alaska Plant Materials Center because of its ability to grow on steep slopes

Grasses



Colin Stone, Alberta Agriculture



Seed Stock Photo, Alaska Plant Materials Center, DNR

Thickspike Wheatgrass

Elymus macrourus

DISTINGUISHING CHARACTERISTICS

- Perennial, mostly tufted, but appears to be rhizomatous when growing on migrating sand bars
- Grows up to 3 feet tall
- Leaf blades are flat and grow up to $\frac{3}{4}$ inch wide
- Spikelets are arranged on opposite sides of a simple rachis that are solitary at each node or occasionally in pairs

DISTRIBUTION

- Found throughout Interior and Western Alaska⁹
- Grows on open slopes, gravel, sand bars, and embankments in tundra and woodlands
- Tolerates drought and establishes well in disturbed and erosional areas

PRODUCTION

- Seed to depth of $\frac{1}{2}$ inch
- Grows well in fine-textured soils
- Light irrigation and weed control enhance performance
- Seed is ready for harvest in late summer

ADDITIONAL NOTES

- Also known as northern wheatgrass, tufted wheatgrass, and thickspike wildrye
- Recommended for revegetation use in Interior Alaska because of its heartiness
- Under favorable conditions, thickspike wheat grass can provide good weed competition because of its sod-forming growth habit

Grasses



Stock Photo, Alaska Plant Materials Center, DNR



Stock Photo, Alaska Plant Materials Center, DNR

Slender Wheatgrass

Elymus trachycaulus

DISTINGUISHING CHARACTERISTICS

- Perennial, tufted, and lacks rhizomes
- Grows up to 3 feet tall
- Spike inflorescence with spikelets arranged on opposite sides of a simple rachis
- Root system is dense, consisting of coarse and fine fibrous roots which extend beyond 12 inches in depth
- Recognized by its long glumes with 5-7 nerves

DISTRIBUTION

- Found in Alaska in a wide variety of elevations and habitats but typically in drier climates⁹
- Grows in habitats such as meadows, gravel bars, rocky slopes, and open forests

PRODUCTION

- Seed to a depth of ½ inch
- Grows best with irrigation, weed cultivation, and fertilization
- Seed matures in late summer
- High seed production

ADDITIONAL NOTES

- Slender wheatgrass will maintain vigor indefinitely under moderate grazing conditions
- It has successfully been used for reclamation seedings of mine soils, oil sands, roadsides, wildfire areas, and other disturbed sites
- Wainwright Germplasm slender wheatgrass seed is maintained by the Alaska Plant Materials Center for commercial production
- Wainwright is Alaska's most produced agricultural native grass crop⁹

Grasses



Stock Photo, Alaska Plant Materials Center, DNR



Seed Stock Photo, Alaska Plant Materials Center, DNR

Red Fescue

Festuca rubra

DISTINGUISHING CHARACTERISTICS

- Perennial, rhizomatous, loosely tufted
- Narrow panicle inflorescence with branches erect to ascending up to 8 inches long
- Leaves are involute and if flat, grow less than 1/8 inch wide
- Culms grow up to 3½ feet tall and are often bent at the reddish-purple base³
- Hairless to soft hairy on leaf sheaths that disintegrate with age to brown, curled fibers⁸
- Spikelets often reddish-purple or glaucous-green

DISTRIBUTION

- Found throughout Alaska in moist or sandy areas including the South East, the Aleutian Islands, and the Brooks range³
- Survives frequent mowing or clipping due in part to its creeping growth form
- Occupies tidal marshes, beaches, stream banks, mountain meadows, river flats, roadsides, and fields⁸

PRODUCTION

- Rapid seed germination and excellent seedling vigor
- Weed control and irrigation enable good field performance
- Seed is fully mature in mid to late summer
- Grows best on medium textured soils
- Tolerant of temperatures as low as -43° fahrenheit

ADDITIONAL NOTES

- The 'Arctared' cultivar performs best throughout Alaska
- 'Arctared' red fescue is recognized in breeder, foundation, and certified seed classes
- Breeder and foundation seed is maintained by the Alaska Plant Materials Center

Grasses



Stock Photo, Alaska Plant Materials Center, DNR



Seed Stock Photo, Alaska Plant Materials Center, DNR

Meadow Barley

Hordeum brachyantherum

DISTINGUISHING CHARACTERISTICS

- Perennial, loosely to densely tufted⁹
- Grows up to 3 feet tall
- Leaves are flat, hairless to spreading hairs, and grow up to ½ inch wide
- Hairy leaf sheaths⁸
- Spike inflorescence grows up to 4 inches long, is brittle, and easily shatters when ripe
- Spikelets are arranged on opposite sides of a simple rachis; 3 per node
- Flower heads are bristly and often purplish in color, becoming stubby at maturity which distinguish it from timothy and meadow foxtail

DISTRIBUTION

- Found in South East, South Central, and on the Aleutian Islands of Alaska
- Commonly grows in salt marshes, ocean beaches, moist meadows, clearings, grassy slopes, and along streams⁸

PRODUCTION

- Seed to a depth of ½ inch
- Grows best with irrigation, weed control, and fertilization
- There is no seed dormancy and is easy to establish by sowing in the fall or early spring
- Seed heads mature from the top down and are ripe when they turn light brown

ADDITIONAL NOTES

- Due to its high seedling vigor, wide soil tolerances, and rapid development, meadow barley is often used as a quick cover for soil stabilization on wet or dry, saline sites
- Lowell Point Germplasm is a Selected Class Release by the Alaska Plant Materials Center
- Lowell Point Germplasm is maintained by the Alaska Plant Materials Center for commercial production

Grasses



Keir Morse, newenglandwild.org



Steve Hurst, ARS Systematic Botany and Mycology Lab, USDA.gov

Beach Wildrye

Leymus mollis

DISTINGUISHING CHARACTERISTICS

- Perennial, forming large clumps with thick spreading rhizomes
- Grows up to 4 feet tall
- Leaves are flat to folded with numerous prominent nerves and grow $\frac{3}{4}$ inch wide⁸
- Spike of seed/flowers are large and compact
- Stout stems are slightly hairy beneath the spike

DISTRIBUTION

- Found throughout coastal Alaska close to the high tide line and is dominant cover on offshore, treeless, sea-bird islands⁹
- Occurs on sandy beaches, spits, tidal flats, sea cliffs, and lakeshores

PRODUCTION

- Does not decline in production over time but not a heavy seed producer
- Weed control is important
- Soil needs to be sandy or gravelly
- Produces seed 2 to 3 years after the first planting
- Responds well to high nitrogen fertilizers
- Transplanting sprigs has been both practical and successful

ADDITIONAL NOTES

- Alaska Natives use beach wildrye for basket weaving, making ropes, and trampolines⁸
- 'Benson' and 'Reeve' cultivars are used for revegetation and erosion control in Alaska
- 'Benson' cultivar should be planted for commercial production of sprigs
- 'Reeve' cultivar should be planted for commercial production of seeds
- Breeder and foundation seed is maintained by the Alaska Plant Materials Center

Grasses



Stock Photo, Alaska Plant Materials Center, DNR



Stock Photo, Alaska Plant Materials Center, DNR



Seed Stock Photo, Alaska Plant Materials Center, DNR

Alpine Bluegrass

Poa alpina

DISTINGUISHING CHARACTERISTICS

- Perennial bunch grass that lacks rhizomes
- Grows 4-16 inches tall
- Leaf blades are mostly basal, lax, short, soft, boat-tipped, and grow ¼ inch wide⁹
- 3-5 florets are broad and purple⁹
- Inflorescence is a loosely contracted to open pyramidal panicle with 5-15 spikelets per branch

DISTRIBUTION

- Found throughout Alaska
- Grows in disturbed areas and tolerates a wide range of soil conditions
- Habitat includes alpine and subalpine dry slopes, rocky substrates, and meadows⁷

PRODUCTION

- Early spring planting is typical
- Irrigation is necessary if planted on dry soil
- Low nutrient requirements
- Seed harvest occurs in late June-early July
- Produces seed for about 4 years

ADDITIONAL NOTES

- Important for high altitude and latitude revegetation because it has low nutrient requirements
- Teller Germplasm is native to Northern Alaska and used for revegetation where permafrost and tundra is found
- Teller Germplasm seed is maintained by the Alaska Plant Materials Center for commercial production
- 'Gruening' cultivar is extremely winter hardy and used throughout the state for revegetation
- 'Gruening' breeder and foundation seed is maintained by the Alaska Plant Materials Center

Grasses



Stock Photo, Alaska Plant Materials Center, DNR



Steve Hurst, ARS Systematic Botany and Mycology Lab, USDA.gov

Arctic Bluegrass

Poa arctica

DISTINGUISHING CHARACTERISTICS

- Perennial, loosely tufted, with well developed rhizomes
- Grows up to 2 feet tall
- Spikelets often violet colored³
- Leaves are flat or folded and grow $\frac{3}{4}$ inch wide and mostly basal
- Inflorescence is an open panicle, branched, and often widely spreading
- Lemmas have cobweb-like hairs at its base¹²

DISTRIBUTION

- Found throughout Alaska
- Occurs in dry alpine, low arctic regions, in meadows, and rocky slopes
- Tolerates both acidic soils and calcareous substrates

PRODUCTION

- Early spring planting recommended
- Irrigation necessary if planted on dry soil
- Has low nutrient requirements
- Seed harvest occurs in late June-early July
- Produces seed for about 4 years

ADDITIONAL NOTES

- Under extreme conditions, instead of producing seeds, a miniature seedling is formed in the seed head, making this species viviparous
- The Adak Germplasm was collected on the Aleutian Islands, and the Tin City Germplasm was collected near Nome.
- Council Germplasm seed is maintained by the Alaska Plant Materials Center for commercial production

Grasses



Inger Greve Alsos, The Flora of Svalbard, svalbardflora.net



Seed Stock Photo, Alaska Plant Materials Center, DNR

Glaucous Bluegrass

Poa glauca

DISTINGUISHING CHARACTERISTICS

- Perennial, usually densely tufted
- Grows up to 1 foot tall
- Open panicle inflorescence
- Blue-green colored with whitish bloom⁴
- Leaves grow up to 4 inches tall with stiff, erect stems
- Panicle of flower and seeds arise from basal clump

DISTRIBUTION

- Grows throughout mainland Alaska
- Occurs in high elevation and dry tundra habitats, as well as disturbed rocky areas⁹
- Generally favors dry habitats and tolerates disturbances well

PRODUCTION

- Requires clean, weed free, well drained, medium-textured soil
- Seed in rows to a depth of ¼ inch
- Seedlings typically emerge within 14 days
- Weed control is very important
- Produces seed the second year of growth

ADDITIONAL NOTES

- Glaucous bluegrass is the most successful grass grown in severe arctic conditions, including arctic oil fields
- Nome Germplasm seed is used for revegetation throughout Alaska and maintained by the Alaska Plant Materials Center for commercial production
- 'Tundra' cultivar is used for revegetation and breeder and foundation seed is maintained by the Alaska Plant Materials Center

Grasses



Bjorn Erik Sandbakk, The Flora of Svalbard, svalbardflora.net



Bjorn Erik Sandbakk, The Flora of Svalbard, svalbardflora.net



Jose Hernandez, ARS Systematic Botany and Mycology Lab, USDA.gov

Spike Trisetum

Trisetum spicatum

DISTINGUISHING CHARACTERISTICS

- Tufted perennial⁹
- Lacks rhizomes but has fibrous roots⁹
- Grows up to 2 feet tall
- Reproduces by seed
- Leaves are mostly basal and evenly distributed
- Panicles are spike-like to open, often interrupted basally, green, purplish, or tawny and silvery-shiny
- Lemmas are hairy at the base and two-toothed at the tip with a prominent, twisted awn¹²

DISTRIBUTION

- Found throughout Alaska
- Prefers disturbed sandy or silty soils
- Occurs on drier areas of mountain meadows, roadsides, forest margins, dry tundras, and subalpine to alpine slopes

PRODUCTION

- Seeding to a depth of ~½ inch is recommended
- Seed germinates in about 10 days in warm soil
- Seed matures in September
- Regular cultivation enhances its growth
- Seed shatters moderately easy

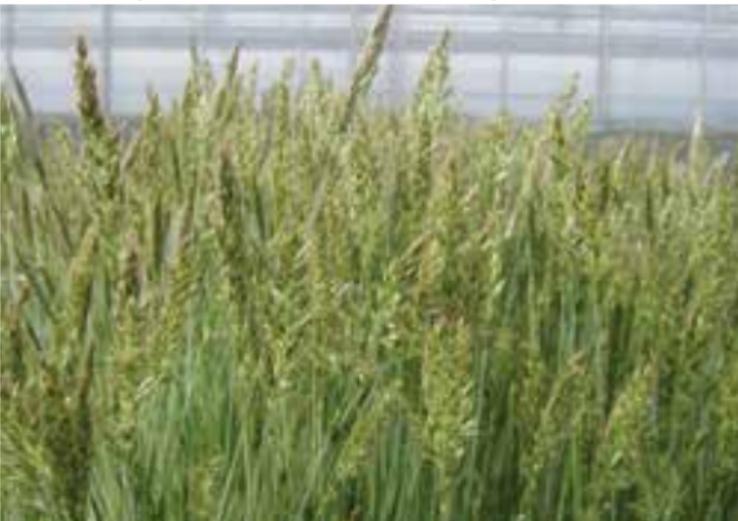
ADDITIONAL NOTES

- Recommended for use in revegetation and erosion control because its seedlings are vigorous and provide good initial plant cover
- Nelchina Germplasm spike trisetum seed is maintained by the Alaska Plant Materials Center for commercial production

Grasses



Stock Photo, Alaska Plant Materials Center, DNR



Stock Photo, Alaska Plant Materials Center, DNR



Steve Hurst, USDA, NRCS PLANTS Database

Water Sedge

Carex aquatilis

DISTINGUISHING CHARACTERISTICS

- Sod forming perennial, grass-like sedge growing 6-40 inches tall³
- Tufted with reddish-brown cord-like rhizomes¹³
- Light green, long, tapering, flat leaves grow up to ¼ inch wide
- Stems or culms are triangular in cross-section
- Inflorescence consists of 1-3 staminate spikes above 2-3 pistillate spikes
- Pistillate scales are reddish brown

DISTRIBUTION

- Common and dominant in wet areas throughout Alaska³
- Grows in bogs and fens, ponds, streambanks, and wet shores from high to low elevations
- Can be found in large monoculture stands and also in open areas of riparian sites with willows, cottonwoods, and birch communities¹²

PRODUCTION

- Soil should be kept saturated with no more than 2 inches standing water¹³
- Seed should be started in a greenhouse as plugs
- Wild collected plants can be transplanted
- Seed is hard and brown when ripe
- Seed ripens in September¹³

ADDITIONAL NOTES

- Seed is buoyant and may travel great distances by water¹³
- Exceptional value for revegetation and shoreline erosion control¹⁰
- Wild collected seed is commercially available
- Water sedge provides cover for fish, waterfowl, small mammals and many types of service birds and is also grazed on by muskoxen⁸

Sedges



Teresa Predusi, USFS, wikipedia.org



Stock Photo, Alaska Plant Materials Center, DNR

Lyngbye's Sedge

Carex lyngbyei

DISTINGUISHING CHARACTERISTICS

- Grows up to 5 feet tall
- Grows as single stems or in clumps from well developed creeping rhizomes
- Basal sheaths are purplish-brown
- Inflorescence spikes on slender, spreading, or drooping stalks
- Upper 2-3 spikes are stamens, lower 2-4 are pistillate and cylindrical

DISTRIBUTION

- Found along the coast of Alaska from Kotzebue to the South East Panhandle¹⁰
- Common and often dominant in estuarine meadows, coastal saltmarshes, and gravel beaches and often forms in dense stands³

PRODUCTION

- Soil needs to be moist to saturated
- Seed to a depth of ¼ inch¹⁴
- Seed should be started in a greenhouse as plugs⁵
- Wild collected plants can be transplanted
- Seed is hard and brown when ripe
- Seed ripens in September¹³

ADDITIONAL NOTES

- Pioneer colonizer of tidal mudflats³
- Successfully used in wetland restoration and creation¹⁰
- Promotes rapid sedimentation as it grows because eddies form around its stems
- Is a prime forage for geese, trumpeter swans, and grizzly bears because of its high crude protein (25%) when young⁸

Sedges



natsnursery.com



Mary Clay Stensvold, USDA, NRCS PLANTS Database



Seed Stock Photo, Alaska Plant Materials Center, DNR

Longawn Sedge

Carex macrochaeta

DISTINGUISHING CHARACTERISTICS

- Loosely tufted with densely matted rhizomes that are covered with a yellowish felt
- Leaves are flat with rolled margins and grow up to ¼ inch wide
- Inflorescence has an erect staminate with 2-4 pistillate awned spikes spreading or nodding on slender stalks
- Perigynia are occasionally purplish-spotted and commonly straw-colored or greenish with an elliptic lance shape

DISTRIBUTION

- Found in wet places throughout the south coast of Alaska
- Common in wet meadows, sandy beaches, stream banks, rocky runnels, and waterfall spray zones⁸

PRODUCTION

- Soil should be kept saturated with no more than 2 inches standing water¹³
- Seed can be started in a greenhouse as plugs⁵
- Wild collected plants can be transplanted
- Seed is hard and brown and ripens in September

ADDITIONAL NOTES

- Due to its tolerance of cold temperatures, saline water, and saturated soils, it is recommended for revegetation in disturbed or eroded coastal grasslands
- Longawn sedge is an important summer forage species for mountain goats and brown bears
- Attu Germplasm is maintained by the Alaska Plant Materials Center for commercial production

Sedges



Matt Goff, sitkanature.org



Matt Goff, sitkanature.org



Seed Stock Photo, Alaska Plant Materials Center, DNR

Merten's Sedge

Carex mertensii

DISTINGUISHING CHARACTERISTICS

- Densely tufted, forming large clumps
- Reproduces primarily by rhizomes
- Grows up to 4 feet tall
- Stems are triangular in cross-section with very rough angles
- Leaves grow ¼ inch wide and have basal leaves reduced to scales
- Inflorescence spikes are large, cylindrical, crowded, and drooping on slender stalks
- Perigynia is whitish, oval, papery, and flattened with a small red beak, and grows ¼ inch long

DISTRIBUTION

- Distributed in the southern coasts of Alaska
- Found in moist to wet, open, rocky slopes, forest openings, stream banks, and disturbed areas; like roadsides and clearings¹⁵

PRODUCTION

- Soil should be kept saturated with no more than 2 inches standing water¹³
- Seed can be started in a greenhouse as plugs⁵
- Wild collected plants can be transplanted
- Seed is hard and brown when ripe
- Seed ripens in September¹³

ADDITIONAL NOTES

- Widely used as an ornamental for gardening
- Used in reclamation for stabilizing and revegetating disturbed areas
- It was named after Carl Heinrich Mertens (1830-1896) who was from Bremen and was the first European botanical collector in Sitka, Alaska⁸

Sedges



Paul Slichter, science.halleyhosting.com



Paul Slichter, science.halleyhosting.com



Seed Stock Photo, Alaska Plant Materials Center, DNR

Sitka Sedge

Carex sitchensis

DISTINGUISHING CHARACTERISTICS

- Tufted with short, scaly brown-purplish rhizomes^{10, 13}
- Sod forming grass-like sedge
- Stems grow up to 5 feet tall, are reddish-brown at the base with conspicuous old leaves³
- Leaves are flat with rolled margins and grow up to $\frac{3}{8}$ inch wide
- Inflorescence spike is erect or drooping on slender stalks with the lower most bract longer than the spike
- Perigynia is greenish, oval to egg-shaped, with brown scales and a clear or whitish tip

DISTRIBUTION

- Common in wet areas throughout South East Alaska¹⁵
- Grows from sea level to alpine elevations, and can be found in fens, wetlands, marshes, wet meadows, and lake shores¹⁰

PRODUCTION

- Soil should be kept saturated with no more than 2 inches standing water¹³
- Seed can be started in a greenhouse as plugs⁵
- Wild collected plants can be transplanted
- Seed is hard and brown when ripe
- Seed ripens in September

ADDITIONAL NOTES

- Exceptional value for revegetation and shoreline erosion control in South East Alaska
- Often forms tall, dense stands that provide waterfowl habitat
- It was first discovered in Sitka, Alaska; hence its name

Sedges



Paul Slichter, science.halleyhosting.com



Paul Slichter, science.halleyhosting.com

Panicled Bulrush

Scirpus microcarpus

DISTINGUISHING CHARACTERISTICS

- Perennial herb with a sturdy rhizome
- Grows up to 5 feet tall
- Stems are triangular in cross-section and usually clustered
- Leaves are flat with purplish-tinged sheaths and whitish knot-like septa
- Inflorescence has numerous short spikelets arranged in small clusters at the ends of spreading stalks
- Fruits are lens-shaped, seed-like, with pointy tipped achenes surrounded by 4-6 bristles

DISTRIBUTION

- Occurs throughout Alaska
- Found in swamps, ditches, marshes, and meadows at low to mid-elevations⁸

PRODUCTION

- Propagated by bare root, in containers, by seed, or sprig
- Irrigation, weed control, and fertilizer enhance growth
- Seed ripens in mid to late summer

ADDITIONAL NOTES

- Has a high tolerance to fire, resprouting rapidly vegetatively
- Also known as the 'small-flowered' bulrush, this is the literal translation for *microcarpus*⁸
- The leaves have been used to weave light duty baskets and laid over and under food in steaming pots

Sedges



Robert L. Carr, hawaii.edu



Keir Morse, keiriosity.com



Robert L. Carr, hawaii.edu

Yarrow

Achillea millefolium

DISTINGUISHING CHARACTERISTICS

- Aromatic perennial herb that grows up to 3 feet tall
- Rhizomatous
- Leaves are fern-like, alternate, and primately dissected
- Ray flowers are white to pink to lavender
- Displays 10-30 disk flowers in a flat or round topped cluster
- Bracts overlap in several species, and often dark margined

DISTRIBUTION

- Occurs throughout Alaska
- Habitats include dry to moist areas, open sites, meadows, rocky slopes, gravel bars, roadsides, and found at low to high elevations
- Often weedy at lower elevations

PRODUCTION

- Fall or spring planting
- Seedling vigor is good and fast
- Watering, weed control, and fertilizers enhance growth
- Mature seed harvested in September

ADDITIONAL NOTES

- Recommended for revegetation seed mixes because of its hardiness and variety
- Common yarrow is an introduced variety from Eurasia, and the western yarrow is native to the American continent, however, they are almost indistinguishable from each other



Paul Slichter, science.halleyhosting.com



O. Pichard, wikipedia.org



Seed Stock Photo, Alaska Plant Materials Center, DNR

Wormwood

Artemisia tilesii

DISTINGUISHING CHARACTERISTICS

- Perennial herb
- Leaves are deeply divided into 3-5 lobes with slender pointed tips and woolly on the underside
- Flowers are small, yellowish-brown or yellowish-green, on branched spikes with dark margin bracts
- Grows up to 4½ feet tall
- Crushed leaves give off a powerful scent

DISTRIBUTION

- Occurs throughout Alaska except the south east
- Common in sandy and mountainous areas of South Central and Interior Alaska³

PRODUCTION

- Seed to a depth of about ¼ inch
- Seed can be broadcast and lightly raked into soil
- Plants will produce seed in second year of growth
- Seed matures late in season and can easily shatter due to wind or rain

ADDITIONAL NOTES

- Important revegetation crop on steep slopes
- The genus *Artemisia* includes several well known, pungently aromatic species used as vermifuges, hence the name 'wormwood.'
- '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

Forbs



Alfred Cook, 2008



Alfred Cook, 2008



Seed Stock Photo, Alaska Plant Materials Center, DNR

Dwarf Fireweed

Chamerion latifolium

DISTINGUISHING CHARACTERISTICS

- Perennial in the evening primrose family
- Grows up to 16 inches tall
- Leaves are bluish-green, lance-shaped, and somewhat waxy
- Flowers are typically pink but could be white having 4 large obovate petals and 4 elliptical-shaped sepals
- Low, bush plant with clustered stems¹¹
- Flowers have 8 stamens and bloom between June-August

DISTRIBUTION

- Occurs throughout Alaska
- Found growing on river bars, stream sides, scree slopes, and fjord walls⁶

PRODUCTION

- Seed to a depth of about ¼ inch
- Prefers moderately drained soils
- Seed in fall or spring
- Light irrigation, weed control, and fertilization enhances growth
- Seed should be collected in the fall when seed capsules begin to split naturally
- Extremely small seeds are contained in a white fluff

ADDITIONAL NOTES

- Recommended for revegetation seed mixes because of its ability to establish in disturbed sites
- The Kobuk Germplasm was collected near Kotzebue and maintained by the Alaska Plant Materials Center

Forbs



Margaret Williams, USDA, NRCS PLANTS Database



Al Schneider, USDA, NRCS PLANTS Database



Seed Stock Photo, Alaska Plant Materials Center, DNR

Snowparsley

Cnidium cnidiifolium

DISTINGUISHING CHARACTERISTICS

- Perennial in the parsley family
- Grows up to 3 feet tall
- Stems are smooth, simple, or branched growing up to 2 feet tall from taproot¹¹
- Leaves are long stemmed and pinnately divided into 3 sections which are acute lanceolate lobes
- Very small, white and pink or purplish flowers arranged in numerous rounded heads
- Blooms from late June to mid-August

DISTRIBUTION

- Occurs throughout Alaska except for the South East and the Aleutian Islands
- Found growing in wet meadows, hillsides, gravelly slopes and along riverbanks³
- Grows well on tundra, taiga, and arctic conditions

PRODUCTION

- Seed to a depth of about ½ inch
- Seedling vigor is variable or sporadic
- Plants can be transplanted from the wild or from starter plugs
- Seed matures in late August-early September

ADDITIONAL NOTES

- Excellent plant for revegetation and reclamation projects due to its ability to colonize
- The Alaskan swallowtail butterfly selectively uses the snowparsley as a host to lay its eggs
- Tok Germplasm Jakutsk snowparsley is maintained by the Alaska Plant Materials Center

Forbs



Stock Photo, Alaska Plant Materials Center, DNR



Seed Stock Photo, Alaska Plant Materials Center, DNR

Northern Geranium

Geranium erianthum

DISTINGUISHING CHARACTERISTICS

- Perennial with a thick, scaly rhizome
- Grows up to 4 feet tall⁶
- Leaves are palmate, with deep cleft and 5-7 lobes
- Flowers are blue to pink-purple with 5 petals and very hairy sepals
- Seed is contained in long-beaked, 5 parted, seed capsule

DISTRIBUTION

- Occurs throughout Alaska as far north as the Yukon River
- Found in moist, open forests, meadows, and clearings from low elevation to above timberline³

PRODUCTION

- Propagated from bare root, seed, and cuttings
- Plant seed in the spring
- Soil should be kept moist
- Seed matures in the fall
- Should be collected when seed pods have hardened before they shatter
- The entire seed pod can be collected then cleaned after drying
- Disperses seed a significant distance when seed capsule curls backward rapidly with considerable force

ADDITIONAL NOTES

- Recommended for roadside revegetation for variety and adding visual appeal
- Geranium is Greek for 'crane,' while the species name '*erianthum*' comes from the Latin words meaning 'soft' and 'flower'⁸
- Sutton Germplasm is maintained at the Alaska Plant Materials Center

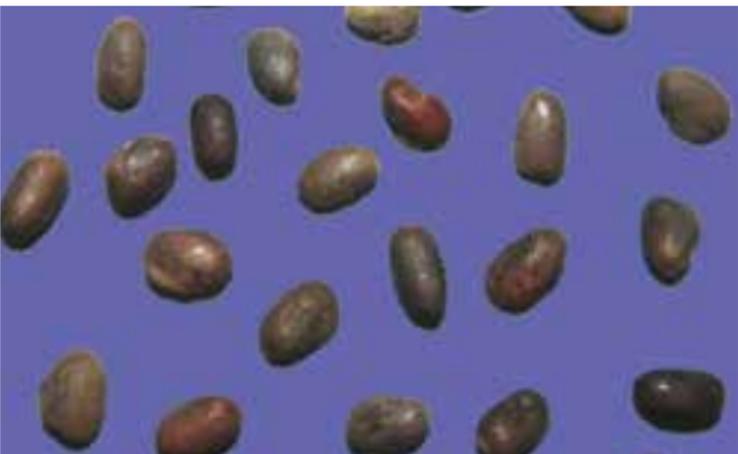
Forbs



Shu Suehiro, botanic.jp



Professor Summer, www7a.biglobe.ne.jp/~flower_world



Seed Stock Photo, Alaska Plant Materials Center, DNR

Alpine Sweetvetch

Hedysarum alpinum

DISTINGUISHING CHARACTERISTICS

- Perennial legume
- Grows up to 2 feet tall
- Deep tap root and rhizomes²
- Leaves grow up to 8 inches long and divided into 13-25 oblong, alternately arranged leaflets⁸
- Flowers are arranged on elongated, 1 sided raceme with magenta colored pea-like flowers
- Produces flat, indehiscent pod fruits constricted between the seeds that ripen unevenly between July and August

DISTRIBUTION

- Found throughout Alaska except the Aleutian Islands and South East
- Occurs in many types of areas including dry slopes, meadows, gravel bars, and spruce forests³

PRODUCTION

- Harvest when seed pods begin cracking
- Seed should be drilled to a depth of about ¼ inch
- Light scarification helps seed germinate
- Fall planting mimics nature and typically produces faster growing plants
- Light watering, weed control, and low nitrogen/ high phosphorous fertilizer enhance growth and seed production

ADDITIONAL NOTES

- Distinguished from the invasive bird vetch (*Vicia cracca*) by lacking tendrils
- Nitrogen fixing legume enriches soil naturally
- Paxson Germplasm alpine sweetvetch seed is maintained by the Alaska Plant Materials Center for commercial production

Forbs



Mel Harte, discoverlife.org



Mel Harte, discoverlife.org



Seed Stock Photo, Alaska Plant Materials Center, DNR

Wild Iris

Iris setosa

DISTINGUISHING CHARACTERISTICS

- Perennial herb
- Grows up to 2 feet tall
- Densely tufted from a short, thick rhizome
- Sword-shaped leaves that grow up to 1 inch wide
- Flowers are blue to purple with dark veins and have 3 sharp petals up to 1 inch long
- 3-4 flowers per stalk that bloom in June and July

DISTRIBUTION

- Occurs throughout Alaska, south of the Brooks Range¹⁴
- Found in bogs, meadows, and on lake shores
- Rarely occurs in dry areas

PRODUCTION

- Should be planted from seed in the fall or started as plugs in a greenhouse
- Seed should be planted soon after harvest at a depth of ½ inch
- Seed pods ripen in mid-August
- Seed should be stored below freezing if not planted following harvest

ADDITIONAL NOTES

- Excellent for revegetation, erosion control, and landscaping due to its rhizomatous growth and showy flowers
- The iris species is also called 'flags' because the septals hang out like banners
- Wild iris is also called beachhead iris and wild-fly iris
- Knik Germplasm wild iris seed is maintained by the Alaska Plant Materials Center for commercial production

Forbs



Mary Stensvold, U.S. Forest Service



Shu Suehiro, botanic.jp



Steve Hurst, ARS Systematic Botany and Mycology Lab, USDA.gov

Beach Lovage

Ligusticum scoticum

DISTINGUISHING CHARACTERISTICS

- Perennial from thick taproot²
- Stems grow up to 2½ feet tall and are reddish-purple at the base
- Leaves are thick, coarsely toothed, divided into 3 leaflets, and often purplish in color⁶
- Flowers are white or pinkish with 5-16 small compact heads in 1 compound umbel and bloom in summer³
- The beach lovage is the only *Ligusticum* that does not have fern-like or parsley-like leaves

DISTRIBUTION

- Occurs along the south and west coasts of Alaska
- Commonly found on beaches and coastal bluffs
- Strictly a maritime species⁸
- Prefers full sun with well drained soil

PRODUCTION

- Seed should be planted ¼ inch deep in soil
- Seed can be planted in either late fall or the following spring, for a mature plant to form by the end of the summer
- Soil should be kept moist

ADDITIONAL NOTES

- Effective for slope control because of its thick roots that survive throughout the winter
- Casco Cove Germplasm beach lovage seed is maintained by the Alaska Plant Materials Center for commercial production

Forbs



Mary Clay Stensvold, USDA, NRCS PLANTS Database



Janet Novak, 2005



Seed Stock Photo, Alaska Plant Materials Center, DNR

Nootka Lupine

Lupinus nootkatensis

DISTINGUISHING CHARACTERISTICS

- Perennial herb
- Dies back annually to thick rhizome
- Hairy and hollow stems grow up to 3¼ feet tall
- Leaves are palmately compound with 5-9 leaflets from a common center and are hairy on the underside⁶
- Flowers are blue, sometimes tinged pink, grow to ¾ inch long and arranged in dense clusters
- Seed pods are black, hairy, and 2 inches long⁶

DISTRIBUTION

- Occurs throughout Alaska
- Commonly found in open habitats such as gravel bars, meadows, open slopes, and tidal marshes at low to mid-elevations⁸

PRODUCTION

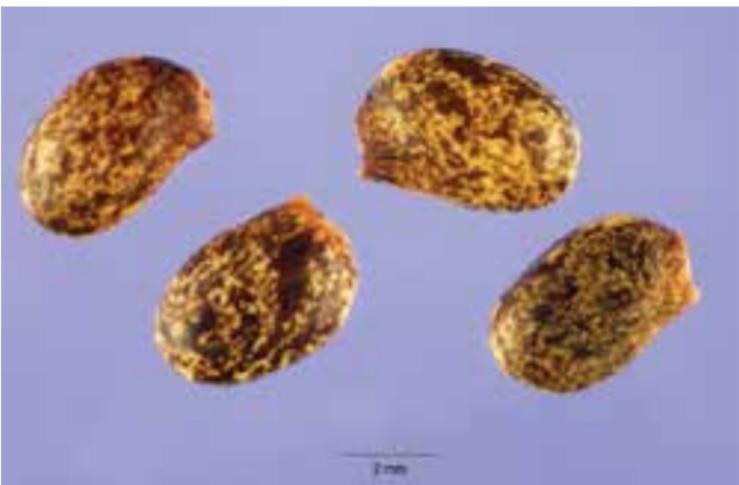
- Seed should be soaked in water for 24 hours prior to planting
- Plug production prior to transplanting to field site recommended⁵
- Seed pods develop in the late summer
- Harvest should occur when pods turn black and begin to crack

ADDITIONAL NOTES

- Distinguished from the invasive large-leafed lupine (*L. polyphyllus*) by having 5-9 leaflets, instead of 10-17 leaflets
- Nitrogen fixing species enhance soils naturally
- Grizzly bears feed on the Nootka lupine in coastal estuarine marshes⁸



Mary Clay Stensvold, USDA, NRCS PLANTS Database



Steve Hurst, ARS Systematic Botany and Mycology Lab, USDA.gov

Field Oxytrope

Oxytropis campestris

DISTINGUISHING CHARACTERISTICS

- Perennial legume with a deep taproot
- Grows up to 1 foot tall
- Basal leaves are green, hairy, pinnate, and grow up to 1 inch long
- Displays 8-12 yellowish-white flowers on leafless stems that bloom in July
- Seedpods are hairy and become papery when dry¹²

DISTRIBUTION

- Found throughout Central and South Central Alaska
- Grows wild on gravel bars, rock outcrops, roadsides, alpine meadows, dry, and sandy places at middle to alpine elevations

PRODUCTION

- Seed should be planted to a depth of ¼ inch
- Light scarification helps seed germinate
- Fall planting is recommended to encourage natural conditions and faster germination
- Light irrigation, weed management, and a low nitrogen/high phosphorous fertilization enhances growth
- Harvest when seed pods begin to split

ADDITIONAL NOTES

- Recommended for revegetation due to good seedling vigor and drought tolerance
- Nitrogen fixer that naturally enhances soils
- Other common names include field locoweed, slender crazyweed, and northern yellow oxytrope
- Black Rapids Germplasm field oxytrope seed is maintained by the Alaska Plant Materials Center for commercial production and was the first legume released as of 2007

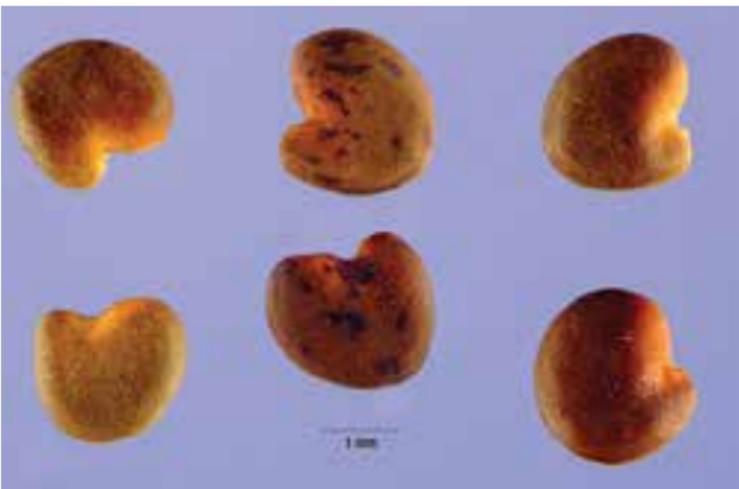
Forbs



Les Mehrhoff, discoverlife.org



Barbara Studer, commons.wikimedia.org



Steve Hurst, ARS Systematic Botany and Mycology Lab, USDA.gov

Nodding Locoweed

Oxytropis deflexa

DISTINGUISHING CHARACTERISTICS

- Taprooted perennial legume
- Grows up to 6 inches tall
- Flowers are purple and have an abruptly pointed tip facing downward, with wing-shaped petals adjacent to the point⁸
- Leaves are hairy with up to 41 lanceolate leaflets less than ¼ inch long¹¹
- Single chambered seed pods hang toward the ground with a long indentation on 1 side and 4-10 seeds per chamber

DISTRIBUTION

- Occurs throughout Alaska; except near the coast on the North Slope
- Found growing along riverbanks, meadows, and waste places in dry rocky soils³

PRODUCTION

- Seed to a depth of ¼ inch or sow on the surface
- Seed needs scarification prior to planting
- Fall planting recommended
- Soils must be a mixture of upland and dry
- Light irrigation, weed control, and fertilization enhance growth
- Seed harvest should occur when seed and seed pod are brown

ADDITIONAL NOTES

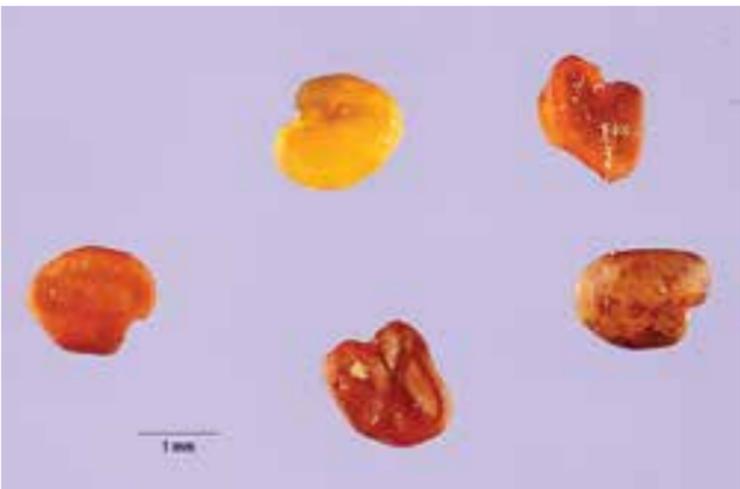
- Recommended for use in revegetation for diversity in a seed mix
- This legume adds nitrogen to the soil
- Franklin Bluffs Germplasm nodding locoweed seed is maintained by the Alaska Plant Materials Center for commercial production



Al Schneider, USDA, NRCS PLANTS Database



Al Schneider, USDA, NRCS PLANTS Database



Steve Hurst, ARS Systematic Botany and Mycology Lab, USDA.gov

Jacob's Ladder

Polemonium pulcherrimum

DISTINGUISHING CHARACTERISTICS

- Taprooted perennial
- Grows up to 3 feet tall
- Mostly basal leaves; pinnately compound, opposite, egg-shaped, and often glandular hairy
- Light purple-blue flowers with yellow centers, bell-shaped, and arranged in crowded clusters⁸
- Ill smelling when bruised
- Produces 3 chambered capsules with several seeds per chamber

DISTRIBUTION

- Found throughout Alaska except on the North Slope
- Grows in dry, rocky places, and in open forests lowlands, and high elevations³

PRODUCTION

- Seed can be broadcast or planted to a depth of ¼ inch
- Soil needs to be well drained
- Plant in spring after the last frost
- Light irrigation, weed control, and low nitrogen/high phosphorous fertilizer enhance growth
- Seed harvest should occur when seed capsule becomes tan

ADDITIONAL NOTES

- Colorful flowers and unique leaves add visual appeal as well as diversity to revegetation projects
- Butte Germplasm Jacob's ladder seed is maintained by the Alaska Plant Materials Center for commercial production

Forbs



Walter Siegmund, 2009, [wikimedia.org](https://www.wikimedia.org)



Walter Siegmund, 2009, [wikimedia.org](https://www.wikimedia.org)



Seed Stock Photo, Alaska Plant Materials Center, DNR

Staghorn Cinquefoil

Potentilla bimundorum

DISTINGUISHING CHARACTERISTICS

- Slightly tufted perennial with a low spreading habit⁴
- Stems often green-purple and grow up to 1 foot tall¹¹
- Heavy taproot
- Divided leaves with wooly undersides
- Small yellow flowers with 5 ray petals
- Leaves change from green to red, then orange and yellow in the fall

DISTRIBUTION

- Occurs primarily in South Central Alaska and the Yukon Territory
- Found growing on gravel bars, dry slopes, and open ground³
- Tolerates cold and dry environments

PRODUCTION

- Seed to a depth of ¼ inch
- Soil should be well drained
- Can be planted in fall or spring, although fall seeding is recommended
- Seed ripens unevenly so hand harvest is recommended

ADDITIONAL NOTES

- Recommended for revegetation projects due to rapid growth rates, tolerance to cold, and tolerance to dry soils
- In the Latin word *Potentilla*, 'potes' means powerful while the second part of the word means 'little'
- Mentasta Germplasm staghorn cinquefoil seed is maintained by the Alaska Plant Materials Center for commercial production

Forbs



www.flora.dempstercountry.org



www.flora.dempstercountry.org



Seed Stock Photo, Alaska Plant Materials Center, DNR

Beach Fleabane

Senecio pseudoarnica

DISTINGUISHING CHARACTERISTICS

- Robust perennial herb⁸
- Grows up to 2 feet tall
- Deep taproot
- Fleshy stems are hairless at the base and woolly hairy towards the top
- Develops many olive-green basal leaves that are smaller than the stem leaves
- Leaves are alternate, spoon, or egg-shaped to oblong, toothed, and are hairy on the undersides
- Bright yellow flowers with long ray flowers, disk flowers, and have green or purplish hairy bracts
- Flowers from July-August⁶

DISTRIBUTION

- Occurs throughout coastal Alaska in maritime habitats
- Found on sea beaches and tidal flats⁶

PRODUCTION

- Seed should be planted very shallowly in full sunlight
- Has good seedling vigor
- Grows best with irrigation, weed control, and fertilizer
- Seed ripens and is ready for harvest in late August
- Mature seed is fragile

ADDITIONAL NOTES

- Recommended for revegetation due to seedling vigor and ability to grow in moist conditions
- Clam Lagoon Germplasm beach fleabane is maintained by the Alaska Plant Materials Center for commercial production

Forbs



Mary Clay Stensvold, USDA, NRCS PLANTS Database



Seed Stock Photo, Alaska Plant Materials Center, DNR

Northern Goldenrod

Solidago multiradiata

DISTINGUISHING CHARACTERISTICS

- Perennial herb
- Grows up to 16 inches tall¹¹
- Short rhizome or branching stem base⁸
- Basal and lower leaves are large, broadly lance to spoon-shaped
- Stem leaves are small and have hairy margins on the leaf stalks
- Yellow ray flowers have up to 18 petals, disk flowers up to 20 florets, and grow in dense, short branched clusters

DISTRIBUTION

- Occurs throughout Alaska
- Found along roadsides, meadows, thickets, bluffs, forest openings or edges, and disturbed areas at low to mid-elevations⁸

PRODUCTION

- Grows readily from seed
- Should be planted at a depth of ¼ inch and spaced 10 inches apart
- Full sunlight and dry soil is recommended
- Irrigation, weed control, and fertilizer enhance crop growth
- Seed will be easily removable when ripe
- Seed head looks similar to a dandelion when ripe

ADDITIONAL NOTES

- Ideal for roadside revegetation for being a colonizer species
- Can be confused with yellow-flowered species of *Hieracium* or *Senecio*, but are distinguished by their numerous, small (< ½ inch) heads
- Contains small quantities of natural rubber in their latex

Forbs



Al Schneider, swcoloradowildflowers.com



J.S. Peterson, USDA, NRCS PLANTS Database



Seed Stock Photo, Alaska Plant Materials Center, DNR

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