Growing Alaska’s Native Pantry and Medicine Cabinet

Why cultivate native plants?
- Ethics of harvesting in the wild
- Easier to have plants available in one place
- Know what has been applied to them
- Relatively easy
Maintaining food and medicinal plants in cultivation
Minimizes chances of over-harvest in the wild.

At my home, I cultivate and use these native and invasive wild plants:

- Goldenrod
- Spruce tips
- Devil’s Club
- Yarrow
- Rose petals and hips
- Willow leaves and bark
- Nettles
- Artemisia (Wormwood)
- Pineapple Weed
- Chickweed
- Bluebells
- Eskimo Potato
- Bunchberry
- Plantain
- Valerian
- Angelica
- Cow Parsnip
- High-bush Cranberry
- Dandelions
- Lamb’s Quarters
- Beach Lovage
- Fireweed
- Geranium
- Chives
- Roseroot
- Jacob’s Ladder
- Alder

Growing native Alaskan plants successfully for food or medicine requires knowledge:

- Seed germination requirements
  - Viability
  - Stratification
  - Moisture
  - Light
- Type of environment the seed needs
  - Soil? Wet, medium, dry. Rocky, acid, organic
  - Light? Sun, shade
- Ways to grow plants for easy harvest
  - Rows, raised beds, wild management
- Identification of plants for purpose desired
- Harvest times for seed or parts
  - Seed collection times and techniques
  - Flower, root, stem harvest
- Processing of seed or parts
  - Post harvest cleaning
  - Storage
  - Usage

Which comes first?
The seed or the plant?

Seed: Embryo, Food, Seed Coat

Native plants have germination strategies to enable them to grow at the right time and place.

One of the fun things we do at the Plant Materials Center is figure out germination strategies.
Try regular germination first. If that doesn't work....

Imitate nature.

Is the seed spread by wind?
Is it eaten by an animal?
Is it buried or does it lie on top of the ground?

Think of Alaskan environments. Seed falls usually in the fall. It is covered by snow, goes through the freeze/thaw cycle in winter, then is exposed to lots of moisture as break-up occurs. Summer means long, sunny days.
Scientific Name: Carex aquatilis Wahlenberg

Propagation: Air dry. Clean with brush cleaner and by hand. Care needs to be given that seed is not harmed, but that the perigynia is removed. Approximately 900 seeds per gram. Tetrazolium test showed 90% viability. Store seeds in freezer until time for processing.

Pre-Planting Treatments: Place 1 g. of seed in cloth bags. Run cold water over them for 24 hours. Either place bags between layers of wet peat (peat sandwich) or plant directly into standard no hole flats containing 18 "3/4" cells with obligate soil mixture. Store seeds for spring planting in a cooler over winter to enable a sheltered cold moist stratification (cooler was not turned on, but left to fluctuate with ambient temperatures.)

Growing Area Preparation: In spring bring planted seeds into greenhouse. Those seeds in peat sandwiches can be planted either directly outside in wetland bed (one inch of obligate soil mix) or transplanted into flats filled with obligate soil mixture and then placed in greenhouse.

Establishment Phase: If using fishy peat as the peat portion of the obligate soil mix, fertilize with organic compost tea. If soil-less mixes used, fertilize with non-organic fertilizer.

Length of Establishment Phase: Seeds germinate readily with this cold, moist stratification.

Active Growth Phase: Once temperatures outside remain above freezing, move cells to lathhouse. Try to plant C.aquatilis plugs before plants get potbound. If potbound then be sure to tease roots apart when planting.

What does the seed need to germinate?
- Light, dark, cold, warm

Where should the seed be planted?
- Dry, wet, rocky, sandy, organic

How can I best manage the plants for a successful harvest?
- Raised beds, individual pots, rows
Rhodiola integrifolium, Roseroot
Which plants do I want to grow for my Native Alaskan Plant Pantry and Medicine Cabinet?
Traditionally, some Althabascans chewed the roots for heart problems.
Growing Ferns: Ostrich Fern

Ostrich Fern
Matteuccia struthiopteris
Ostrich fern fiddleheads are the safest fiddleheads to eat. Look for brown scales on the stem and a U shape groove on the stem. Pick them before the leaves uncurl. Cook them.

Wild Rice or Chocolate Lily
Fritillaria camschatcensis
The below-ground bulbs of chocolate lily were harvested and boiled in soups and stews. They can be dried for future use. When dry they were also ground into flour.
Fern Prothalli

Bog Cranberry

Vaccinium oxycoccos
These are flavorful berries. They grow on top of sphagnum in bogs. They are not stored in quantities for the winter because harvesting does not yield a lot of berries. They can also be picked in the spring. They keep well under snow.

High Bush Cranberry

Viburnum edule
Opposite Leaves A Very Sour Fruit
The bark is made into a tea to help with colds, stomach aches, and sore throats. The fruit tastes good when cooked as a syrup.
Beach Pea

Lathyrus maritimus

The peas from the pods can be eaten raw according to the Dena'ina. The Hupings avoid eating it. Make sure to identify it correctly.

Horsetail

Equisetum sp.

A common name for this plant is seauriu rush. Because of the silica in its makeup it has been used to clean pots, sand sculptures, and sharpen tools.

Cotton Grass

Eriophorum sp.

This is not a grass. It is a sedge. Cotton Grass stem bases and roots are eaten raw or cooked. One way to find the tasty roots is to find a mouse cache. Mice gather the roots for winter. Always leave enough for the mouse.

Plantain

Plantago sp.

The leaves of Plantain are harvested in the early spring. They are eaten raw or leavened, seeds, roots—all are used medicinally. One of the best plants to help heal wounds!

False Hellebore

Veratrum viride

Deadly Poisonous!
The Dena’ina of Southcentral Alaska boiled the root for many ailments.

Wild Chives

Allium schoenoprasum

Wild chives are great with everything! The bulbs can be eaten or frozen. The leaves and stems help spice up any meat or vegetable dish. Just like onions, wild chives can be eaten raw or cooked—fried, boiled, or baked. Yummmmm!

Beach Fleabane

Senecio pseudocrinitus

Fleshy leaves can be boiled and eaten. The leaves were also used by the Aleuts to help heal wounds.

Boreal Sagebrush

Artemisia arctica

The leaves of Boreal Sagebrush are very smelly. Because of this smell, one can tell that it might be good for a medicine.
Staghorn Cinquefoil  
*Potentilla bimnodorum*  
In Latin, the name *Potens* means powerful. The last part, *tilia* means little.  
This plant was used for medicines and protection.  
The stem, leaves, and flowers were made into a tea.

Alpine Milkvetch  
* Astragalus alpinus  
The stems, leaves, and flowers of alpine milkvetch make a beautiful yellow-green dye.  
This is a good plant for revegetation purposes. It adds nitrogen to the ground and color to the landscape.

Mountain Ash  
*Sorbus sthomsis*  
A steam bath switch!  
Waving a Mountain Ash stem with leaves attached makes a fragrant smell in the steam.  
Leaves are alternate.

Red Elderberry  
*Sambucus racemosa*  
A pop gun for kids!  
The Demina's took a straight piece of stem, about 12 inches long, carefully hollowed it out, and then loaded it with pieces of birch polypore.  
The cooked red berries were made into jams or mixed into stem.

Rosroot  
*Rheum tanguticum*  
Rosroot is a plant found on rocky slopes and alpine meadows throughout Alaska. Its resinous leaves and root can be eaten raw or cooked.  
Rosroot leaves and roots were used for medicinal teas. These teas were used externally on wounds and internally for many problems.

Stinging Nettle  
*Urtica dioica*  
"That which stings"  
Young Nettles can be eaten slightly boiled, like spinach.  
They are very tasty and high in Vitamin C. You can harvest them several times as long as they are still young. When nettles are older they make a strong fiber for cords and rope.  
You just need to watch out for the sting!

Larkspur or Delphinium  
*Delphinium glaucum*  
Larkspur can grow up to 6 feet tall!  
Poisonous  
The root of larkspur was boiled and used to get rid of lice.  
The flowers make a blue dye.

Tall Fireweed  
*Chamerion angustifolium*  
Food — leaves, stems, flowers  
Medicine — Tea of leaves for stomachaches  
Fiber — Twine, Fish Nets  
Mosquito Repellent  
Young foraged shoots are a good source of Vitamin C. They can be eaten raw or cooked. The flowers can be eaten.
**Sweet Coltsfoot**
*Petasites frigidus*
If the leaves taste good they can be eaten raw or cooked (depends on the soil type). The leaves were dried and stored for use as a tea to help colds.
The 9 inch leaves can be made into baskets to hold berries, funnels, or to cover barrels of rhubarb and blueberries to prevent mold.

**Single Delight or Bethlehem Star**
*Moneses uniflora*
Single Delight is found in woods, almost hidden by moss. Its leaves are evergreen and fragrant. It is in the wintergreen family of plants.
A tea was made from its leaves and flowers to heal sore throats.
Chew the leaves and then place them on cuts or blisters for healing.

**Bedstraw**
*Galium boreale*
This sweet smelling plant was used to fill mattresses.
Young plants can be cooked for food.
The leaves produce a yellow dye. The roots make a pink to purple dye.

**Northern Yarrow**
*Achillea millefolium ras bresb"s*
Yarrow was an important medicinal plant for most Native People in Alaska.
The leaves and flowers are boiled to make tea, steam, hot packs, or a wash for sore eyes, stuffy sinuses, aches, or other problems. Raw yarrow can be rubbed on the skin to repel mosquitoes.

**Mosses**
*Uses: Diapers or Toilet Paper*
Mosses were used for mattresses, insulation of houses, markers, and as fire starters.
There are over 415 different types of mosses in Alaska.

**Monks Hood Lichen**
*Hygrozyma physisodes*

**River Beauty or Dwarf Fireweed**
*Chamerion latifolium*
Leaves, shoots, and flowers are high in Vitamins A and C.
Leaves and shoots should be cooked. Flowers can be eaten raw. The leaves are not as tasty as tall fireweed.

**Bunchberry or Dwarf Dogwood**
*Cornus canadensis*
A Fruit Snack
Some people like them and others do not.
They can be mixed with other berries and cooked or eaten raw.
Spruce: *Picea sp.*
A spring-time tonic—spruce tips.
Harvest the spring spruce tips while part of their brown bud scale is still attached.
Eat raw or make into a tea.

Wild Rose
*Rosa sp.*
The petals of our wild roses can be eaten raw or made into rose petal jam.
The leaves were used for tea.
Rose hips (fruit) are high in Vitamin C. Jellies, jams, and sauces are made from rose hips.

Arctic Dock: *Rumex arcticus*
Three common names are used for this species: Wild Rhubarb, Sourd Dock, or Arctic Dock.
The young leaves of Sourd Dock can be eaten raw or cooked.
They are a good source of Vitamins A and C.
The roots were used for medicine.
This plant is usually found in wet areas.

Wild Rhubarb
*Polygonum alaskanum*
Stems and leaves were eaten raw or cooked. The stems were made into desserts.
If the stalk breaks easily with your fingertips, it is ready to eat.

Meadow Bistort
*Polygonum bistorta*
The young leaves can be eaten raw or cooked. Leaves were preserved in seal oil to be eaten in the winter. The roots can be eaten raw or cooked.
The underground root grows in a crescent shape. Chewing the root after eating helps to clean the teeth.

Labrador Tea
*Ledum palustre*
The young leaves and stems of Labrador Tea are made into infusions for many illnesses.
Caution needs to be taken with this plant because it contains lobel, a poisonous substance that can cause paralysis.

Angelica
*Angelica lucida*
Angelica’s young leaves and stems were eaten like celery. The stems were peeled and the juicy insides were eaten.
Caution! This plant looks very similar to the poisonous Water Hemlock. They both grow in the same areas.

Beach Lovage or Petru’shkha
*Ligusticum scoticum*
The leaves and young shoots of Petru’shkha can be eaten raw or cooked. They are high in Vitamins A and C.
Look in the middle of the plant to find young leaves in the summer. They are good cooked with fish or in soups.
**Paper Birch**
*Betula papyrifera*
- Sap was eaten raw.
- Bark used to make:
  - Casks for broken bones,
  - Baskets for cooking and carrying
  - Roofing material
  - Canoes
  - Hats

**Balsam Cottonwood**: *Populus balsamifera*
- Cottonwood buds are sticky because of a resin that covers them. A tree is cut from the buds to help heal rashes. Burn the buds, and then breath in the smoke to help colds. Cottonwood logs are very soft. It is easy to carve. Canoes, gaggins, and toys are made from this wood.

**Alder**
*Alnus crispa or incana*
- Alder wood is good for smoking fish and meat. The wood was also used to make shelters in the mountains.
- A reddish-brown dye is made from the inner bark.
- The inner bark is used to make a tea to relieve gas and fever. It tastes so bad the person vomits.

**Willow**
*Salix sp.*
- Willow stems, branches and leaves are chewed to help with headaches and mouth sores.
- Young stems are peeled and the inner bark is eaten.
- The branches are made into string, fish hangers, basket rims, lean-tos, and yellow dye.
- There are 35 different species of willow in Alaska!

**Yellow Pond Lily**: *Nuphar polysepala*
- The root of the pond lily is really big! Some people slice the root and warmed it to put on painful spots. Others eat the cooked roots as a vegetable.
- The seeds were either roasted or ground up for cereal. The seeds taste like popcorn.

**Water Hemlock**
*Cicuta douglasii*
- Poison!!!!
- Water Hemlock grows near streams and in boggy areas. It looks similar to many other plants. The whole plant is poisonous.

**Goldenrod**
*Solidago multiradiata*
- Goldenrod has been used to help heal many problems. A strong tea from the whole plant was made and put on body sores. A weaker tea was used for internal ailments.
- The flowers make a yellow dye. All goldenrods have some latex in their sap.

**Tall Jacob’s Ladder**
*Polamemion acutilobum*
- Tall Jacob’s Ladder gets its name from the way its leaflets look like a ladder.
- The leaves have been made into a tea to promote sweating.
- The root is a sedative.
The whole plant is poisonous.

Cat-Tail and Iris leaves look the same. Be careful.

Cow Parsnip or Wild Celery
When cow parsnip is young, the stalks can be peeled and eaten raw or cooked like celery.

Cow parsnip can grow to be 8 feet high. When it is in flower it is too old to eat.

Beware... cow parsnip hairs can cause blisters in sunlight.

Moss Campion
Silene acaulis
Moss Campion is a plant found in dry, rocky alpine areas.
It hugs the ground making a moss-like carpet. The flowers are very fragrant.

Raw root skins were used for food.

Alpine Bluegrass
Poa alpina
Traditional uses of grass:
Baskets
Bedding
Smoke against mosquitoes
Filling in swampy places
Insulating footwear
Covering floors
Lineing cooking pots
This is a good plant for revegetation purposes.

Iris or Wild-Flag
Iris setosa
The petals of Iris were used to make a dye.
This dye was used to color strands of grass for use in basket weaving.

Sitting Burnet
Sedum rosea
Sitting Burnet is a beautiful landscape and revegetation plant. It is very easy to grow.

Sitka Burnet
Sanguisorba alternata
Sitka Burnet's leaves can be made into an herbal tea. The roots were used for internal problems.

Official Burnet
Sanguisorba officinalis
The leaves of Burnet can be eaten while the plant is young. They are good in salads and soups.

Valerian
Valeriana capitata
Valerian root has been considered an all-purpose tea. Many people used the tea to help with stomach problems and to help sleep.
The dried root was also used as incense.

Columbine
Aquilegia formosa
Columbine was used as a good-luck charm.
The roots were crushed and applied externally to help with arthritis or bee stings.
Water Sedge
*Carex aquatilis*
Roots were made into a medicine for women whose menstrual cycle was delayed. The stems and leaves were made into baskets and bedding.

Beaked Sedge
*Carex urticulata*
Sedges have edges but rushes are round, grasses are hollow, all the way to the ground.

Soapberry
*Shepherdia canadensis*
Alaska's Desert Berries
Mid-summer these berries were harvested, mixed with sugar, and with the hands were whipped into a foam (like soap!). This foam was used like whipped cream.

Silverberry
*Elaeagnus commutata*
Don't place Silverberry wood in a fire. When it burns it smells like an outhouse. The berries were eaten only in survival times. The seeds were made into beads. The bark was used for cord.

Devil's Club
*Oplopanax horridus*
Watch Out For Its Thorns!
Devil's Club does have many uses—most of which are medicinal. The inner bark of the roots and stems is used for tonics to help with colds. The buds can be eaten as a vegetable.

Watermelon Berry or Twisted Stalk
*Streptopus amplexifolius*
Another name for this plant is scott berry. If you eat too many you have to scoot to the bathroom! The berries are edible, but watery. The young shoots are good cooked like asparagus.

Seaside Sandwort
*Honckenya peploides*
These leaves and stems are a good source of Vitamins A and C. They can be eaten raw or cooked. This plant is common on sandy or gravelly ocean beaches.

Common Harebell or Bluebell
*Campanula rotundifolia*
The roots of the bluebell have been used for medicinal purposes. A tea was made for many internal problems. The dried, chopped root was used to stop bleeding and aid healing of cuts.
Harvesting your plants depends upon which part you are using.

Leaves: midmorning. Young leaves are best for most food. for the highest medicinal benefit, harvest just prior to flowering.

Flowers: Harvest in early stages of maturity.

Roots: Best dug at end of growing season.

Eskimo Potato *Hedysarum alpinum*
Grass seed

Any plant used carelessly can harm.
The same plant, when dispensed from knowing and loving hands Will heal hurt and banish suffering.

Clean plant parts thoroughly.
Store appropriately.
Use with knowledge.

Drying
Freezing
Storage
Infusion: Hot Water
Tincture: Alcohol

Low Tech Devices
Nettles

Young Nettles can be eaten slightly boiled, like spinach. A tea is great for allergies. Dried, use them in the winter for teas or in soup.

They are very tasty and high in Vitamin C. You can harvest them several times as long as they are still young. When nettles are older they make a strong fiber for cords and rope. You just need to watch out for the stings!
Contact Alaska Plant Materials Center

- Peggy Hunt
- 907-745-8721
- E-mail: peggy.hunt@alaska.gov

http://plants.alaska.gov