James R Freed

- Washington State University
- Emeritus Extension Forestry Professor
- Non-timber forest products and stewardship forestry
- E-mail freedj@wsu.edu

Bearberry Kinnikinnick



Bearberry Kinnikinnick

- Arctostaphylos spp.
- berries have thick skin and a mealy taste.
- berries can be dried for storage.
- dried berries can be ground and cooked into a porridge.
- dried berries can be popped when fried in grease over low flame.
- varieties in the Pacific Northwest are Common bearberry (<u>Arctostaphylos uva-ursi</u>) and Alpine bearberry (<u>Arctostaphylos</u> <u>alpina</u>), which has either red or shiny black berries.
- grows in dry open woods and gravelly or sandy soils in arctic and alpine regions.
- warning: may cause nausea or constipation if eaten in quantity.
- warning: prolonged use may case stomach and liver problems and should be avoided by children and pregnant or breast-feeding women.

- Full sun to light shade.
- Well drained moist to rather dry soils.
- Establish as an understory plant for other woody shrubs. Also can be used to stabilize exposed slopes.
- Very difficult to grow from seeds. Once the seeds have germinated they should be moved to final site. Cuttings in fall and winter can be used to start new plants. Protect cuttings from drying out.

Blackberry



Blackberry

• <u>Rubus spp.</u>

- mature berry is very sweet.
- berry can be dried for storage.
- bush has formidable thorns.
- varieties in the Pacific Northwest are Himalayan blackberry (<u>Rubus armeniacus</u>), Trailing blackberry (<u>Rubus ursinus</u>), and Highbush blackberry (<u>Rubus</u> <u>allegheniensis</u>).
- tip: the blackberry is an example of a compound berry, since it consists of a tight cluster of smaller parts, resembling a [raspberry]. Compound berries are generally edible.

- Almost all light conditions will support good growth for the blackberry and raspberry plants.
- The more the sun they get the better the fruit.
- Moist to rather dry soils.
- Prune the plants back or mow to the ground to keep from becoming a nuisance.
- Will propagate from cuttings, seeds, rooted sections of stems, and divided clumps.

Black Currant



Black Currant

- <u>Ribes spp.</u>
- berries contain seeds dense in nutrients.
- raw berries tend to be tart.
- berries contain high levels of pectin, which benefits making jams.
- plant is a small shrub growing 1-2 m tall.
- leaves and stem have strong fragrance.
- varieties in the Pacific Northwest are Northern black currant (<u>Ribes</u> <u>hudsonianum</u>) and Stink currant (<u>Ribes bracteosum</u>).
- grows in moist foothill and montane woods.
- warning: **Northern black currants** may cause diarrhea and stomach upset if eaten in quantity.

- Sun or light shade.
- Wet to very moist soils, with occasional water in hot climates.
- Grow in hedgerows for use by hummingbirds and fruit eating birds. Great for wet woods, thickets and along streams.
- Responds well to pruning of old canes.
- Seed propagation is best.
- Hardwood cuttings taken in the late summer and early fall and treated with rooting hormones can be very successful.

Black Huckleberry



Black Huckleberry

- Vaccinium spp.
- berry is sweeter than the <u>Red huckleberry</u>.
- berry is high in vitamin C.
- an edible look-alike is the <u>Blueberry</u>.
- plant is a deciduous or evergreen shrub.
- varieties in the Pacific Northwest are Thinleaf huckleberry (<u>Vaccinium membranaceum</u>) and Evergreen huckleberry (<u>Vaccinium ovatum</u>).
- grows in forests in montane and subalpine areas

- Full shade or filtered sun. Plants produce more and better fruit if they have more sun.
- Moist to rather wet soil. Soils high in organic matter make best growing conditions.
- All these plants benefit from pruning of old canes.
- Seeds are the best way to propagate. The vaccinium family will often self seed.
- Tip cuttings in the spring, semi-hardwood cuttings taken n the summer and layering stems in the spring all are good methods of propagation.

Blueberry Bilberry



Blueberry Bilberry

- Vaccinium spp.
- berry has a sweet taste when mature.
- berry can be dried for storage.
- berries can be boiled in water and spread to dry as a cake.
- juice from boiled berries can be cooled to make a jelly.
- an edible look-alike is <u>Black huckleberry</u>.
- varieties in the Pacific Northwest are Velvetleaf blueberry (Vaccinium myrtilloides), Dwarf blueberry (Vaccinium caespitosum), Bog blueberry (Vaccinium uliginosum), Ovalleaf blueberry (Vaccinium ovalifolium) and Alaska blueberry (Vaccinium alaskaense).
- grows in both wooded and open moist areas.

- Full shade or filtered sun. Plants produce more and better fruit if they have more sun.
- Moist to rather wet soil. Soils high in organic matter make best growing conditions.
- All these plants benefit from pruning of old canes.
- Seeds are the best way to propagate. The vaccinium family will often self seed.
- Tip cuttings in the spring, semi-hardwood cuttings taken n the summer and layering stems in the spring all are good methods of propagation.

Bunchberry



Bunchberry

- Cornus canadensis and C. unalaschkensis
- berries have mild taste.
- berries have hard/crunchy central seed, which is edible.
- plant can be found in foothills and montane regions.
- warning: unripe berries can cause stomach cramps

- Shade, part sun, filtered sun.
- Moist acidic soil with lots of organic matter.
 Often slow to establish, can benefit from adding rotting wood to planting hole.
- A perfect plant for a groundcover under evergreen shrubs, in logs or on stumps.
- Propagation can be successful from seeds, cuttings, layering and whips.

Chokecherry



Chokecherry

- Prunus virginiana
- raw berry has bitter/sour taste.
- berry can be cooked to improve taste.
- berry can be crushed or dried whole for storage, with or without pit.
- grows in open areas in plains, foothills, and montane regions.
- edible look-alikes are the Pin cherry (<u>Prunus</u> <u>pensylvanica</u>) and Bitter cherry (<u>Prunus emarginata</u>).
- warning: do not eat raw or undried seeds; they contain amygdalin which breaks down into cyanide.

- Full sun is best for the most fruit.
- Moist to rather dry soils.
- Plant into a hedgerow or a sunny spot in the woodland garden.
- Propagation is easiest from seed. Collect seeds and plant them where they will be stratify under cool moist conditions until spring.
- Can be grown from young shoot tips cuttings and semi-hardwood cuttings in late summer.

Cloudberry



Cloudberry

- <u>Rubus chamaemorus</u>
- berries are somewhat sour/bitter.
- unripe berries are hard and reddish.
- ripe berries are salmon-colored.
- berry has high vitamin C content.
- berry has high benzoic acid content, which acts as a natural preservative.
- stems are unbranched, slender and wiry.
- leaves are broader than long, and have five lobes.
- plant grows in peat bogs and peaty forests.

- Full shade to part shade or diffused sun.
- Moist to rather wet soils. Plant it near the bog, mossy stream bank or path.
- Collect the fruit just as they ripen, remove the achenes, and plat them into flats of potting soil in the fall. Leave them outside until spring.
- Woody rhizomes can often be cut apart in early spring and root cutting made in the winter.

Cranberry



Cranberry

- Vaccinium spp.
- raw berry has a tart, sour flavor.
- berry can be dried for storage and reconstituted in boiling water.
- berry can be boiled and mixed with grease/oil for storage.
- berry has improved flavor when cooked or after freezing.
- berries remain on the shrub all year.
- varieties in the Pacific Northwest are Bog cranberry (<u>Vaccinium oxycoccus</u>), Lingonberry (<u>Vaccinium vitis-idaea</u>), and Grouse whortleberry (<u>Vaccinium scoparium</u>)

- Full to part shade.
- Moist soils. Acidic bogs, wet meadows, Lake borders and wetland areas all proved excellent growing conditions.
- Makes a great plant to put into wildlife gardens or as an understory plant around evergreen shrubs to add fall color.
- Grow from seeds collected after berry harvest.
- Layering, tip cuttings and summer woods can be successful in humid conditions.

Crowberry



Crowberry

- Empetrum nigrum
- berries have a bland, modest taste.
- taste of the berry improves with cooking or freezing.
- berries have a glossy black color and are about 1/3 inch in diameter.
- berries often stay on the shrub over winter.
- grows in shady dry areas, tundra, muskeg and forests.

- Full sun to part shade.
- Wet to fairly dry soils.
- Great plant for alpine rock garden, pond, or bog margins. Can be planted between stones of a retaining wall and allow it to cascade gracefully.
- Propagation is best from cuttings taken during the growing season.
- Layering can be very successful as well as growing from seeds collected in the fall.

Elderberry



Elderberry

- <u>Sambucus spp.</u>
- berries are tiny and powder-blue, growing in clusters.
- berries are edible if cooked or dried.
- plant is a large, tree-like shrub.
- variety in the Pacific Northwest is Blue elderberry (<u>Sambucus caerulea</u>).
- warning: berries may cause nausea if eaten in quantity. Red varieties of the berry are poisonous.

- Full sun to fairly deep shade.
- Moist to rater wet soils. Tolerates the dry shade under conifers.
- Plant near forest margins, hedgerows or wet areas.
- Propagation is very easy from hardwood cuttings taken from fall to late winter.
- Direct seeding can be very successful in harder to work wet areas.

Ferry Bell



Fairy Bell

- Prosartes spp.
- berries are bright red and large (~0.5 inches in diameter).
- berries occur at tips of branches in clusters.
- taste is blandish/sweet.
- varieties in the Pacific Northwest are Hooker's fairy bell (<u>Prosartes hookeri</u>), which has long tapering leaves and smooth berries, and Rough-fruited fairy bell (<u>Prosartes trachycarpa</u>), which has broad leaves and roughish berries
- plant grows in moist forested areas.

- Full shade to part or defused sun.
- Moist soil with good organic content.
- Establish in shade garden or perennial borders.
- Propagation is easy from seed.
- Collect berries in late summer or fall, remove seed and sow them directly into the garden or containers. Large plants can be obtained from divisions of rhizomes made in early spring.

Golden Currant



Golden Currant

- <u>Ribes aureum</u>
- berries are very flavorful.
- ripe berries range from dark red to golden yellow.
- berries contain high levels of pectin, which benefits making jams.
- plant is a shrub growing 1-3 m tall.
- grows in prairies, grasslands and on slopes.

- Sun or light shade.
- Moist to fairly dry soil, with occasional water in hot climates.
- Grow in hedgerows for use by hummingbirds and fruit eating birds.
- Responds well to pruning of old canes.
- Seed propagation is best.
- Hardwood cuttings taken in the late summer and early fall and treated with rooting hormones can be very successful.

Gooseberry



Gooseberry

- <u>Ribes spp.</u>
- berries have modest taste, tart if picked too early.
- berries can be collected and left to ripen.
- berries can be dried for storage.
- berries can be cooked and then spread to dry into cakes.
- berries contains high levels of pectin, which benefits making jams.
- varieties in the Pacific Northwest are Coastal black gooseberry (<u>Ribes divaricatum</u>), Sticky gooseberry (<u>Ribes lobbii</u>), Whitestemmed gooseberry (<u>Ribes inerme</u>) and Northern gooseberry (<u>Ribes oxyacanthoides</u>),
- warning: eating gooseberries in quantity may cause stomach upset.

- Full sun to part shade.
- Moist soils. Excellent shrub for damp places.
- Great plant for hedgerow providing cover, nesting and food in the thorny foliage.
- Remove seeds from berries and plant them in flats of potting soil. Leave outside until spring germination.
- Propagate from hard wood cutting taken in late summer or fall.

Hairy Manzanita



Hairy Manzanita

- Arctostaphylos columbiana
- berries have thick skin and are mealy.
- berries can be dried for storage.
- berry is suitable for occasional use.
- plant is a tall shrub, 1-3 meters tall.
- grows in open coniferous forests and other open areas.
- warning: may cause constipation if eaten in quantity, prolonged used may case stomach and liver problems.

- Full sun to light shade.
- Well drained, moist to rather dry soils.
- Makes an excellent pruned landscape plant for dry course soils and rock gardens.
- Notoriously difficult from seed.
- Cuttings of 4inches in length taken in the fall show the best success. Keep cuttings under high humidity and out of direct sun until roots form.

Hawthorn



Hawthorn

- Crataegus spp.
- berries are called 'haws'.
- haws are tasteless, with a texture that is mealy/seedy.
- haws can be dried for storage.
- haws can be mashed into a pulp, cooked and then spread to dry into cakes once the seeds have been strained out.
- haws contains high levels of pectin, which benefits making jams.
- plant is a shrub or small tree, 6-11 meters tall with long sturdy thorns.
- the variety in the Pacific Northwest is Black hawthorn (<u>Crataegus</u> <u>douglasii</u>).
- grows in open woodland, forest edges and road-sides in lowland and montane regions.
- warning: thorn scratches to the eyes usually results in blindness. Blood pressure and heart rate may be affected by consuming berries.

- Full sun to part shade.
- Well drained to moist soils.
- Excellent tree for wildlife gardens or large hedgerows. Plants will eventually form thicket if not controlled.
- Deer do not like to browse them.
- Grow from seeds removed from pulp. Keep outside until spring when they will germinate.

Oregon Grape



Oregon Grape

- Mahonia spp.
- berries taste sour.
- berries are about 1cm long.
- berries are suitable for casual foraging and flavoring food or drink.
- varieties in the Pacific Northwest are Tall Oregon grape (<u>Mahonia aquifolium</u>), Creeping Oregon-grape (<u>Mahonia</u> <u>repens</u>), and Dwarf Oregon-grape (<u>Mahonia nervosa</u>).
- plant grows dry and/or open forests in low to montane areas.
- warning: berries may be toxic and even deadly if eaten in large quantities.

- Full sun to full shade (more shade where summers are hot).
- Moist to rather dry soil. Tolerates the dry shade under big trees.
- Keep back from walkways as the foliage is fiercely prickly.
- Propagation is easiest from seed.
- Difficult to propagate vegetatively. Established plants do not like to be moved and will die back if roots are disturbed.

Indian Plum



Indian Plum

Oemlaria cerasiformis

- A harbinger of spring with pendant, greenish-white clusters of flowers in early March, Indian Plum grows rapidly to 15 -20.' The many long, slender stems grow erect in full sun but in the dappled shade they arch majestically.
- The foliage is a cheerful lime green, turning yellow in autumn.
- In early summer, olive size, bittersweet, purple berries dot the branches but are almost immediately eaten by birds. Native groups collected the berries for eating.
- Indian Plum is found from BC to California, west of the Cascade Mountains, USDA zones 8-9. It prefers moist sites in full to partial shade but will survive in full sun.

- Part shade to dappled light. Short periods of full sun less than 3 hours.
- Moist to rather dry soils.
- A great forest understory plant for conifer and woodland gardens.
- Propagation is easy from seed. You must be quick to beat the birds!
- Easy to grow from hardwood cuttings, root cuttings and layering

Pacific Crabapple



Pacific Crabapple Western crabapple

- Malus fusca
- fruits grow in clusters and are yellow to reddish purple.
- fruits are ~15mm in length.
- taste of raw fruit is sour/tart.
- plant is a small tree.
- plant grows in open coniferous forests and forested wetlands.
- warning: raw seeds are toxic.

- Full sun to partial shade.
- Most to wet soils. Survives near salt water and will tolerate flooding.
- An excellent plant for streams, ponds and boggy sites, or the wet places in the wildlife garden.
- Grow from seed separated from the fruit. Layering of young shoots and limbs.
- Grafting to domestic root stock has little success but grafting of domestic top stock to crabapple root stock can provide apple trees for wet areas of garden.

Raspberry



Raspberry

- Rubus spp.
- berry is sweet.
- berry is best eaten fresh, since it does not preserve well.
- plant may have prickles or bristles.
- varieties in the Pacific Northwest are the Blackcap (<u>Rubus</u> <u>leucodermis</u>), Red raspberry (<u>Rubus idaeus</u>), Arctic raspberry (<u>Rubus arcticus</u>), Trailing raspberry (<u>Rubus</u> <u>pubescens</u>), and Creeping raspberry (<u>Rubus pedatus</u>).
- tip: the raspberry is an example of a compound berry, since it consists of a tight cluster of smaller parts. Compound berries are generally edible.

- Full sun to full shade.
- All soil types have proven successful to good production.
- Rubus are some of the most notorious weeds.
- Can be propagated from seeds collected and cleaned in the fall and left in flats or pots outside until spring.
- Upright species can grown from hardwood cuttings or semi-hardwood cuttings.
- Stolon forming species can be propagated from rooted sections of the prostrate stems in late winter or early spring.

Red Currant



Red Currant

- <u>Ribes spp.</u>
- berries are bright translucent red.
- berries are sour but palatable.
- berry is more sour than <u>black currant</u> berry.
- plant is waist high.
- varieties in the Pacific Northwest are Northern Red Currant (<u>Ribes triste</u>) and Mountain prickly currant (<u>Ribes montigenum</u>).
- shrub grows in swamps, moist coniferous forests and rocky montane slopes.

- Shade, part sun or dappled light. Wet to very moist soils.
- An excellent lush shrub for stream bank, pond margins or bogs.
- Berries are an excellent source of winter food for birds.
- Remove seeds from berries and plant into flats of potting soil. Leave outside to break dormancy.
- Semi-hardwood and hardwood cutting taken in the fall or late summer and treated with rooting hormones is a very successful propagation method.

Red Huckleberry



Red Huckleberry

- <u>Vaccinium parvifolium</u>
- raw berry has a sweet/tart taste.
- berry is high in vitamin C.
- berry can mashed and spread out for drying, either in the sun or using smoke. After storage, berries can be reconstituted in boiling water.
- berry can be stored in grease or oil.
- berry was traditionally used as fish bait.
- plant is a deciduous shrub.
- grows in forests in lowland and montane areas, frequently on nurse logs and rotting stumps.

- Shade to part sun or dappled light.
- Moist, acidic soil with lots of decaying organic matter.
- Plant it near a water feature or into an old stump.
- Collect berries in the summer. Remove seeds from pulp. Plant seeds in potting soil.
- Tip cuttings in the spring, semi-hardwood cuttings in the summer or fall and layering stems in the spring are all good methods of obtaining new plants.
- Larger plants do not like to be move so work with small seedlings.

Nootka rose



Nootka Rose

- Rosa nutkana
- Rosehips can be used to make jelly, syrup and tea. While very mildly flavored, they are reportedly rich in Vitamin A, C, D, E, bioflavonoids and essential fatty acids. This last component is exceptional: fatty acids are very rarely found in fruit (Plants for a Future; Vermeulen). They can be gathered in the fall and folklore has it that they are tastier and richer in Vitamin C after the first frost. They are indeed an incredible source of Vitamin C, far richer than oranges. During the first and second world war people were advised to gather and prepare them as a vitamin supplement.

- Full sun to part shade, and fairly dry to wet soil. Tolerates sites prone to occasional flooding or affected by salt water.
- Makes a great hedgerow that provides pink flowers for butterflies and red hips that are an important winter food source for birds.
- Can grow to 6 feet tall.
- Spreads by rhizomes, suckering.

Salal



Salal

- Gaultheria shallon
- berries are mildly sweet with good flavor.
- berries can be dried into cakes.
- plant grows in coastal areas and forms deep thickets.

- Part shade, and moist (not wet) to dry soils.
- Full sun plants will be smaller
- Most vigorous plants occur in the partial shade to full shade. Great source of floral foliage.
- Best fruit occurs in forested areas of diffused shade or partial full sun.
- Can be grown from seeds, seedlings and cuttings

Salmonberry



Salmonberry

- Rubus spectabilis
- mature berry is yellow-red.
- berry is mildly sweet to neutral.
- young plant/shoot is edible raw.
- grows in moist coastal forests.
- tip: the salmonberry is an example of a compound berry, since it consists of a tight cluster of smaller parts, resembling a raspberry. Compound berries are generally edible.

- Full sun to full shade, and moist to rather wet soil. Will form dense patches in perfect growing conditions.
- An excellent plant for the hummingbirds as it blooms as they are returning for the summer.
- To control aggressive spread plant in dryer areas of the landscape. Responds well to heavy pruning.
- Best method of propagation is new plantlets from rhizomes in the spring.

Saskatoon Berry Service Berry Juneberry



Saskatoon Berry serviceberry juneberry

- <u>Amelanchier alnifolia</u>
- purple berry is mildly sweet to neutral.
- cooked/steamed berries can be mashed, formed into cakes and dried over a low intensity fire.
- dried berries can be mixed with meat and fat to make <u>pemmican</u>.
- dried berries can be added to soups.
- plant is a shrub or small tree.
- grows in forested areas in plains, foothills, and montane regions.
- variety in the Pacific Northwest is Saskatoon berry (<u>Amelanchier</u> <u>alnifolia</u>).
- warning: pits contain cyanide-like toxins, which are destroyed by cooking or drying.

- Full sun to part shade,
- Moist to rather dry soil.
- Plant in locations to attract birds for viewing
- Excellent for hedgerows and living fences.
- Can be propagated from cleaned seeds planted in the fall and cold stratified outside over winter.
- Good success can be hand by propagating from Hardwood cuttings can be taken in early summer.

Strawberry



Strawberry

- Fragaria spp.
- berry is sweet.
- berry can be mashed an spread out into cakes and sundried.
- flowers, leaves and stems can be used for flavouring.
- varieties in the Pacific Northwest are Wild strawberry (*Fragaria virginiana*), Wood strawberry (*Fragaria* <u>vesca</u>), and Coastal strawberry (*Fragaria chiloensis*).
- warning: wilted or partly wilted leaves contain toxins.

- Full sun to light shade or dappled light.
- Moist well-drained soils.
- Makes a fine groundcover for the edge of a woodland garden, among paving stones, or in perennial borders.
- Easiest to propagate by removing the plantlets that form along stolon's in early spring or late summer.
- Can be grown from seeds.

Sumac



Sumac

- <u>Rhus</u>
- berry is reddish, hairy, and has lemony taste.
- berry can be eaten raw to quench thirst.
- berry can be crushed in water to make refreshing drink.
- the variety in the Pacific Northwest is Smooth sumac (<u>Rhus glabra</u>).
- grows in plains and foothills on dry slopes.

- Full sun and dry to somewhat moist soils.
- Forms clumps and will not sucker.
- A great choice for the wildlife garden along a dry bank or near a parking area.
- Grows to 6 feet tall with similar spread.
- Best propagation occurs when rooted suckers produced on rhizomes are separated and transplanted.

Thimbleberry



Thimbleberry

- <u>Rubus parviflorus</u>
- mature berry is thin, coarse, seedy and has neutral taste.
- plant has no thorns.
- plant has large, maple-like leaves.
- young shoots can be peeled and eaten raw.
- grows in foothill and montane regions.
- tip: the thimbleberry is an example of a compound berry, since it consists of a tight cluster of smaller parts, resembling a [raspberry]. Compound berries are generally edible.
- warning: avoid eating wilted leaves, which can contain toxins.

- Full sun to part shade
- Moist to fairly dry soil.
- Great for hedgerow's that provide cover and fruit for birds and nectar for butterflies.
- Can be propagated from the plantlets that are produced on the suckers/rhizomes.
- Early spring is the best time to transplant new plantlets.

Twisted Stalk



Twisted Stalk

- <u>Streptopus spp.</u>
- berry has bland, cucumber-like taste.
- stem has distinct sharp kinks that make it look crooked.
- an edible look-alike is the Fairy bell.
- varieties in the Pacific Northwest are Claspleaf twisted-stalk (<u>Streptopus amplexifolius</u>) and Rosy twisted-stalk (<u>Streptopus lanceolatus</u>).
- grows in dense, moist undergrowth.
- warning: berries eaten in quantity can have a laxative effect.

- Shade to part sun or dappled light.
- Moist soil rich in organic matter.
- Great background plant for the shaded woodland garden, stream or pond areas.
- Collect seeds after the berries have ripened.
- Plant seeds into containers or directly into ground.
- Will take a few years to reach flowering size.

Sitka Mountain Ash



SITKA MOUNTAIN ASH

- Sorbus sitchensis M. Roem. var. Sitchensis
- Sunny open locations.
- Fruit not edible when fresh.
- Makes a bitter jelly/
- Importantant wildlife plant

resources

- Wild Rose and Western Red Cedar- the gifts of the northwest plants by Elise Krohn
- Encyclopedia of Northwest Native Plants for Gardens and Landscapes – Kathleen A. Robson, Alice Richter & Marianne Filbert
- Native American Food Plants and Ethnobotanical dictionary – Daniel E. Moerman

resources

- www.nwplants.com
- <u>www.wnps.org</u>
- www.ubcpress.ca
- www.northernbushcraft.com
- <u>http://www.plants.usda.gov/documents.html</u>
- <u>http://www.fs.fed.us/database/feis/plants/</u>
- http://www.npsbc.ca/