

(Hairy) Manzanita *(Arcotostaphylos columbiana)*

RANGE

Hairy manzanita is found along the coast from California north to Vancouver Island and the Sunshine Coast.

Typically Manzanita is found in the open and in clearings, on shallow, strongly drained soils on rock outcrops and upper slopes. It will tolerate a variety of soil textures and parent materials. Occasionally it is found in open, young Douglas-fir forest.

Manzanita does not tolerate deep shade.



Photo courtesy of Moralea Milne

Manzanita on rock outcrop in Metchosin District

HABITAT AND LIFE HISTORY

Hairy manzanita is an early colonizer of disturbed plant communities, developing after removal of the forest cover; Manzanita will continue to grow in the understory of an open forest.

Black bear, coyote, deer, and various small mammals and birds eat Manzanita fruit. The leaves and stems are unpalatable to browsing wildlife such as deer.

Manzanta can flower sporadically throughout several months allowing many invertebrates and hummingbirds to feed on the nectar. Brown elfin butterflies use Manzanita as a host plant, meaning they lay their eggs on Manzanita and the caterpillars use the plant as their food source.

DESCRIPTION

Hairy Manzanita is an erect or spreading evergreen shrub. It will grow from 1 to 3 metres in height.

The bark on mature shrubs is reddish, flaking and peeling, much like arbutus bark. Young twigs and branches are grayish and hairy. *Photo courtesy of Will O'Connell.*



The photo to the right shows the leaves of a young Manzanita on Camas Hill. Leaves are evergreen and egg or oblong shaped. Leaves are grayish and the undersides of leaves are hairy.



Photo courtesy of Morelea Milne

Flowers:



Photo courtesy of Morelea Milne.

Manzanita flowers are white or pink and occur in terminal clusters. The photo shows Manzanita flowers on Camas Hill.

Fruits:

Manzanita berries are blackish-red, 6-8 mm across.

REPRODUCTION

PROPAGATION

Manzanita is notoriously difficult to propagate, try using a very porous soil mixture, such as 4 parts perlite to one part vermiculite to ensure good drainage for cuttings. Keep the soil evenly moist but not waterlogged and use mist sparingly, the leaves are subject to fungal diseases.

From the Garry Oak Ecosystems Recovery Team research:

a) SEED PROPAGATION

Fruit and Seed Collection and Extraction

Fruits may be hand stripped or picked off the ground. Soak fruits in water and then macerate by hand or blender. Pulp can be removed by floatation, or the whole mixture may be dried and the seeds extracted by screening or a fanning mill (Meyer, 2002).

Seed Storage

Seeds retain viability for long periods in nature; thus stored seeds should retain viability for ten years or more. Seeds should be dried and stored at 2-4° C.

Fruit/Seed Dormancy and Treatment

Embryo dormancy is not common. All seeds exhibit seed coat dormancy, which is broken in nature by passing through the digestive system of an animal or by the effects of ground fires. Seeds should be scarified mechanically or by acid treatment (Meyer, 2002). The possible use of fire in dormancy treatment needs investigation, since it has been postulated that, while heat may erode the seed coat allowing water absorption, leachates from the burned vegetation may enhance germination.

b) VEGETATIVE PROPAGATION

Vegetative propagation from stem cuttings is the most effective means of propagating this species. Dormant winter cuttings are best taken between January and March. Cuttings should be terminal shoots with about 2-4 cm of woody stem from the previous season's growth. Cuttings should be dipped in rooting hormone, planted in a moist peat/perlite (2:1) mixture and misted until roots develop. Since Hairy manzanita does not transplant well, rooted cuttings should be planted directly into one gallon pots and grown to planting size.

METHOD	SUCCESS RATE	TIME OF COLLECTION
Softwood cuttings	Good	March Spring or early summer (from course notes)
Semi-hardwood cuttings	Good	September, October Mid to late summer (from course notes)
Hardwood cuttings	Good	November, December, January Mid winter when the plant is dormant (from course notes)
Suckers	Good	Cuttings of side shoots of the current

		season's growth, 5 – 8 cm with a heel, August to December in a frame. Takes one year (Plants for a Future database).
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c) OUTPLANTING CHARACTERISTICS AND REQUIREMENTS

Plant into organic-rich soils or use acidified fertilizers in urban plantings. Do not plant in areas subject to water-logging to prevent crown rot. Water every four to six weeks during establishment but avoid overhead watering which may cause foliage diseases. Rock mulches may be used to control weeds and stabilize the soil.

THREATS

The primary threat to Manzanita is urbanization and the conversion of natural environments suitable for Manzanita to man-made environments. Manzanita often grows on rocky bluffs that afford excellent viewpoints and prime house building sites. It is thought that Manzanita seed germination is closely associated with fire disturbance and fire suppression has probably curtailed the germination of young plants.

CULTURAL USES

Manzanita leaves were used medicinally, as a tea, for the treatment of diarrhea. The bonsai like nature of the twisted stems and red bark make it an attractive landscaping plant for use in full sun to light shade in well drained sites. The wood is used for small woodworking projects and it has potential for restoration purposes on sunny, dry, sites in a mild climate.

FURTHER INFORMATION AND REFERENCES

<http://www.fs.fed.us/database/feis/plants/shrub/arccol/all.html>

<http://linnet.geog.ubc.ca/Atlas/Atlas.aspx?sciname=Arctostaphylos%20columbiana>

www.goert.ca