

9/25/2023

# Memorial Forest Tree Selection



# Lodgepole Pine

*Pinus contorta* var. *latifolia* Ludon.



**TREE:** Tall, slender conifer, with little taper and straight trunk. Bark orange-brown, somewhat scaly, less than 2 cm thick. Branches curve upwards. **SIZE:** 20 - 30 m high; trunk 30 - 45 cm in diameter. **LEAVES:** Needle-shaped, in bundles of two, 2½ - 8 cm long, spirally twisted, stiff, very sharp pointed, yellowish-green; form dense clusters towards the ends of twigs. **CONES:** Short-cylindrical to egg-shaped, curved away from branch tip, 2 – 5 cm long, remain on trees for many years; scales armed with small prickles. **DISTRIBUTION:** Grows on a wide variety of sites but prefers well drained sandy soils in the western part of the province. It is abundant in the rocky mountain and foothills regions. **NOTES:** As of May 1984, the lodgepole pine is the official arborial emblem of Alberta.

# Jack Pine

*Pinus Banksiana* Lamb.



**TREE:** Small shrubby conifer on open sites, somewhat taller in dense stands. Bark reddish-brown with irregular scaly ridges. Lower branches wide spreading. **SIZE:** 5 – 20 m high; trunk 20 – 30 cm in diameter. **LEAVES:** Needle-shaped, in bundles of two, generally divergent, 2 – 5 cm, yellowish-green. **CONES:** Conical, 3 – 5 cm long, strongly curved, generally in pairs, directed toward the tip of the branch, without prickles. **DISTRIBUTION:** Common on sandy and gravelly sites in central and northern Alberta. **NOTES:** Lodgepole Pine and Jack Pine hybridize freely where the ranges of these two species overlap in central Alberta.



# White Spruce

*Picea glauca* (Moench) Voss



**TREE:** Dense conifer with a straight, tapered trunk. Bark scaly, thin, grey to ashy-brown. Branches horizontal. **SIZE:** Averages 25 m high; trunk 65 cm in diameter. Under favorable conditions 40 m high; trunk 130 cm in diameter. **LEAVES:** Needle-shaped, four-sided, 2 – 3 cm long, straight, stiff, sharp pointed, bluish-green; aromatic when crushed. **CONES:** Cylindrical, 4 – 5 cm in length, located at the ends of twigs; yellow when young turning brown when mature, smooth margins. Cones open in autumn and drop during the winter or spring. **DISTRIBUTION:** Common throughout western, central, and northern Alberta. It is found in a variety of soil types and climatic regions.

# Tamarack

*Larix laricina* (Du Roi) K. Koch



**TREE:** Slender with a straight trunk having little taper. Bark thin, smooth, and grey when young becoming dark reddish-brown and scaly when older. Branches curved slightly downwards. **SIZE:** 20 m high; trunk 30 – 60 cm in diameter. **LEAVES:** Needle-shaped, in feather-like clusters of 10 – 20; 2 – 4 cm long, soft, flexible; pale green turning bright yellow in autumn; shed in autumn. **CONES:** 2½ cm long, reddish when young becoming brown when mature; open in the autumn and persist on tree through the winter and following summer. **DISTRIBUTION:** Found in wetlands in central and northern Alberta. In northern Alberta it can also be found on better drained sites such as valley slopes. **NOTES:** Tamarack is part of a small group of conifers that loses their needles in the fall; making them a deciduous conifer.



## Balsam Fir

*Abies Balsamea* (L.) Mill.



**TREE:** Symmetrical conifer with narrow, conical crown. Bark smooth, pale grey and blistered on young trees, rough, scaly and brown on older trees. Branches horizontal. **SIZE:** 18 m high; trunk 45 cm in diameter. **LEAVES:** Needle-shaped flattened, 2 – 3 cm long, bent upward, rounded or blunt tipped; dark shiny green surface and whitish underside. **CONES:** Oval or oblong, 5 – 10 cm long, dark purple; disintegrate on tree and do not fall. **DISTRIBUTION:** Common tree in north-eastern Alberta which has adapted to a variety of soils and climates.

# Willows

*Salix* L.



**SHRUBS OR SMALL TREES:** Variable in size and form, many branches; bark yellowish-brown to reddish-brown to grey, smooth or scaly. **SIZE:** 1 - 9 m high. **LEAVES:** Alternate, simple, long and narrow, pointed at both ends; most species have small fine teeth on margins. **FLOWERS:** Greenish female (seed) catkins; yellowish male (pollen) catkins. **FRUIT:** Capsules in catkins. **DISTRIBUTION:** Willows are sun loving and are found throughout Alberta, mainly along the edges of lakes, rivers and in wetter areas.



# Balsam Poplar

*Populus Balsamifera* L.



**TREE:** Slender, with a long, straight trunk and narrow crown, Bark light grey and smooth on young trees, dark grey and furrowed on mature trees. Branches stout, pointing upward. **SIZE:** Averages 20 m high; trunk 40 cm in diameter. Under favorable conditions 30 m high; trunk 120 cm in diameter. **LEAVES:** Alternate, simple ovate to ovatelanceolate, 8 - 15 cm, long; fine, irregular, rounded teeth on margin; shiny dark green surface, with whitish-green undersidesometimes with rusty brown resin stains; winter buds large and pointed and covered with sticky resin. **FLOWERS:** Small, drooping catkins, appear before the leaves. **FRUIT:** Small, green capsules splitting when ripe to form large amounts of loose cotton mass that is blown about by spring breezes. **DISTRIBUTION:** Common and widespread throughout most of Alberta but grows best on rich, moist soils and low lying terrain.



# Aspen Poplar

*Populus tremuloides* Michx.



**TREE:** Slender with a long straight trunk and rounded crown. Bark smooth, greenish white on young trees becoming somewhat blackened and furrowed near base on older trees. Branches restricted to tops on mature trees. **SIZE:** Averages 20 m high. Trunk 25 cm in diameter. Under favourable conditions 30 m high: Trunk 61 cm in diameter. **LEAVES:** Alternate, simple, oval to ovate, 4 - 6 cm wide; fine, irregular, rounded teeth on margin; slender, flattened petiole, usually longer than the leaf-blade; deep green under surface, paler underside. **FLOWERS:** Small, hairy, drooping catkins appear before the leaves. **FRUIT:** Small, green capsules splitting when ripe to form a cotton mass. **DISTRIBUTION:** Very common and widespread throughout forested regions, but grows best in well drained soils.

# White Birch

*Betula papyrifera* Marsh.



**TREE:** Small to medium sized. Crown oval when associated with other trees and pyramidal in the open. Branches slender, twisted, pebbled, reddish-brown. Bark smooth, reddish-brown turning white with age, peels easily. **SIZE:** Averages 6 - 15 m high; trunk 20 - 30 cm in diameter. Under favorable conditions 18 - 15 m high; trunk 40 - 50 cm in diameter. **LEAVES:** Alternate, simple, ovate, tapering to a sharp point; 2 - 9 cm long; margins sawtoothed except near the base; dull green surface with paler, slightly hairy underside. **FLOWERS:** Drooping, greenish-brown catkins. **FRUIT:** Cone-like catkins, 2 - 4 cm long, 1 cm in diameter. **DISTRIBUTION:** Common along riverbanks and moist, wooded areas throughout Alberta. Prominent in the forested regions in the central and northern parts of the province.



## Beaked Hazelnut

*Corylus cornuta* Marsh.



**SHRUB:** Comprised of many slender erect stems with numerous branches. Bark rough, light brown. **SIZE:** 1 – 3 m high. **LEAVES:** Alternate, simple, ovate, gradually tapering to a point, 5 – 20 cm long; coarsely-toothed margins; dull green surface, with paler underside, hairy along veins. **FLOWERS:** Small, hanging, yellow male catkins and tiny reddish female flowers on the branch tips above; appear in spring before the leaves. **FRUIT:** A nut, enclosed in two rough hairy green bracts, which extend beyond nut to form a beak. **DISTRIBUTION:** Found in central and northern parts of the province. It grows well in open areas or in the shade and prefers well-drained sites.

## Green Alder

*Alnus crispa* (Ait.) Purs.



**SHRUB:** Bushy, with upward curving branches. Bark smooth, reddish-brown or gray. Stems and twigs covered with white dots. **SIZE:** 1 – 3 m high. **LEAVES:** Alternate, simple, ovate, 2 – 8 cm long; fine, sharp double toothed margins; prominent veins, shiny green surface, paler underside; sticky when young. **FLOWERS:** Light green catkins which develop before the leaf buds open; female catkins 1 – 1½ cm long; male catkins 7 – 13 cm long. **FRUIT:** Small, conelike catkins on long stalks; several in a cluster; green turning brown and woody at maturity; nuts with wings. **NOTES:** The River Alder (*A. tenuifolia* Nutt.) and the Speckled Alder (*A. rugosa* (Du Roi) Spreng.) are closely related to Green Alder and are also found in Alberta. The River and Speckled Alder can grow up to 6 m high, and have slightly different leaf margins.



# Saskatoon

*Amelanchier alnifolia* Nutt.



**SHRUB:** Tall, somewhat slender, may be dwarfed or misshapen. Bark smooth, greyish-brown. **SIZE:** Averages 1 – 3 m high; under favorable conditions 4 – 6 m high. **LEAVES:** Alternate, simple, small, oval, with rounded tips; 1 – 5 cm long; bluish-green in colour; coarse teeth on margin especially near tip; many fine hairs on the underside of new leaves, becoming smooth and hairless with age. **FLOWERS:** White, with five petals; 1 cm in diameter; in dense terminal clusters. **FRUIT:** Berry-like, 1 cm in diameter; blue or dark purple when ripe; in clusters at end of branch. **DISTRIBUTION:** Found in open woods, bluffs, along the edge of forest, stream banks and along roadsides. This plant prefers dry sites and good exposure to the sun. It is commonly found throughout Alberta. Colonies are sometimes found because of its ability to sucker.

# Pin Cherry

*Prunus pensylvanica* L.f.



**SHRUB OR SMALL TREE:** Fairly straight, with narrow rounded crown. Branches point upwards. Bark reddish-brwon, smooth on young trees, marked by orange, horizontal dots on older trees. **SIZE:** 3 – 8 m high. **LEAVES:** Alternate, simple, ovate, with sharp pointed tip; 5 – 12 cm long; petioles red; fine, uneven teeth on margins; shiny dark green surface, pale green underside. **FLOWERS:** White, small  $\frac{1}{2}$  – 1 cm in diameter; in clusters, each on a long stalk; appear the same time as leaves. **FRUIT:** Small, round, bright red cherry, each on a single pinlike stem. **DISTRIBUTION:** Found in open woods, bluffs, and along river banks throughout Alberta. It is intolerant of shade and therefore is seldom found in mature forests.



# Choke Cherry

*Prunus virginiana* L.



**SHRUB OR SMALL TREE:** Irregularly shaped, with a slender, twisted trunk. Crown narrow and irregular and composed of crooked, spreading branches. Bark smooth, reddish-brown turning black with older growth. **SIZE:** 2 – 8 m high. **LEAVES:** Alternate, simple, ovate, with sharp point; 2 – 8 cm long; finely toothed along margins; dark green surface, paler green underside; thick and leathery. **FLOWERS:** Creamy-white, small 1 – 1½ cm in diameter; form dense, cylindrical clusters at ends of twigs. **FRUIT:** Small, round, deep red to dark purple, 6 – 8 mm in diameter; form clusters with common stem. **DISTRIBUTION:** Common in bluffs, ravines, open areas, and along river banks and roadsides throughout Alberta. Can tolerate very dry conditions on the prairies. **NOTES:** The underground root system suckers freely.

## Wolf Willow

*Elaeagnus commutata* Bernh. ex Rydb.



**SHRUB:** Grows erect, usually in thickets. Bark copper-brown, finely pebbled. **SIZE:** 1 – 3 m high. **LEAVES:** Alternate, simple, oblong, 2½ – 8 cm long; smooth margins; silvery-grey surface, lighter underside with brownish scales. **FLOWERS:** Silvery-yellow, without petals; 3 mm in diameter, in clusters of two or three. **FRUIT:** Pale silvery-green, round to oval, dry and mealy containing a large stoney seed. **DISTRIBUTION:** This plant prefers sand or gravelly soils and is common on valley slopes, hillsides and in open fields throughout Alberta. In heavily grazed areas this plant spreads quickly; however, it remains sparse in the wild. Root suckering is a means by which it can propagate itself.



## Red-Osier Dogwood

*Cornus stolonifera* Michx.



**SHRUB:** Straggly appearance, several stems originating from root collar. Bark red (especially in winter), with white dots on older growth. **SIZE:** 1 – 2 m high. **LEAVES:** Opposite, simple, ovate, 2 – 8 cm long; smooth margins; prominent veins, shiny, dark green surface; underside paler with short hairs. **FLOWERS:** White, small, several in a flat terminal cluster; clusters 2½ – 5 cm in diameter. **FRUIT:** Round, greyish-white berry (drupe), about 5 mm in diameter; several drupes in terminal cluster. **DISTRIBUTION:** This shrub is found throughout most of Alberta and prefers moist areas. It is commonly found in hardwood forests and along the sides of streams. It can spread by root suckering.

# Prickly Wild Rose

*Rosa acicularis* Lindl.

Photos by Peter M. Dziuk



**SHRUB:** Bushy, with straight, weak prickles densely covering the branches to the tips of new growth. **SIZE:** ¼ – 1 m high. **LEAVES:** Alternate, compound, oval, with five to seven leaflets per stem; leaflets 1 – 5 cm long; coarse teeth along margins; dark green surface with paler hairy underside. **FLOWERS:** Pink, with five petals; 5 – 7 cm in diameter. **FRUIT:** Rose hips; oval, bright red to orange, about 2 cm long. **DISTRIBUTION:** Common in or at edges of open forests and along roadways and waterways throughout the province, except the southeastern prairie. **NOTES:** The Prickly Wild Rose is Alberta's floral emblem. However, two other rose species are commonly found in Alberta; Common Wild Rose (*R. woodsii* Lindl.) and Prairie Rose (*R. arkansana* Porter). These species are similar in appearance to the Prickly Wild Rose.



## Sources:

Photos: [Trees \(nrcan.gc.ca\)](http://nrcan.gc.ca)

Lodgepole Pine Photos: <http://treesplanet.blogspot.com/2017/09/pinus-contorta-lodgepole-pine.html>

Beaked Hazelnut Photos (Bottom two photos): [Beaked Hazelnut, Corylus cornuta | Native Plants PNW](#)

Saskatoon Photo (bottom right): [Saskatoon Bush Care: How To Grow Saskatoon Shrubs In The Garden \(gardeningknowhow.com\)](#)

Prickly Wild Rose photos: [Rosa acicularis \(Prickly Wild Rose\): Minnesota Wildflowers](#)

Wolf willow photos: [Wolf Willow \(Elaeagnus commutata\) in Strathmore Calgary Drumheller Brooks Okotoks Alberta AB at Eagle Lake Nurseries](#)

Green alder photos: [Alnus viridis subsp. crispa | Landscape Plants | Oregon State University](#)

Red-Osier dogwood photos: [Cornus stolonifera, Red Stem Dogwood \(laspilitas.com\)](#)