

# COMMUNITY TREES OF THE PRAIRIE PROVINCES



**BLUE SPRUCE**

*Picea pungens*

Now a common species in the prairie provinces, the blue, or Colorado, spruce is native to the Rocky Mountains of the western United States. It prefers rich, moist clay to clay-loam soils but tolerates drought conditions and sandy soils. With a uniform conical crown and height of 25 to 30 m, it is a majestic presence in landscaped yards. Growth rates are slow for the first 3 to 5 years but increase to 20 to 25 cm annually.

- Stiff branches angle up from trunk with brown bark.
- Rigid, bluish to silver colored four-sided needles are sharply pointed; radiate at right angles from twigs.
- Cylindrical cones, 7-10 cm long, occur on upper branches; drop in fall and winter.

**Planting tips:** Blue spruce should be planted 3.75 m apart in protected locations. Once established, the blue spruce requires minimal pruning and maintenance but will not tolerate flooding and, like other evergreens, is susceptible to winter burn, which can be prevented by deep watering in the fall.



**SCOTS PINE**

*Pinus sylvestris*

Commonly planted throughout Canada, the Scots pine is native to northern Europe and Russia and grows on dry sites in sandy soils. Pyramidal in form and majestic in appearance, it is a relatively fast-growing, erect conifer with widely spaced branches. It grows to an average height of 12 m but may reach 20 m high.

- Green, thick, smooth bark on young trees peels off in papery flakes; becomes thicker and copper colored on mature trees; lower branches die off in dense stands.
- Dark bluish green pairs of twisted needles are 3-7 cm long.
- Yellowish brown cones 3-5 cm long; drop from tree after seeds are spent.

**Planting tips:** The Scots pine requires full sun and acidic soils. It should be planted 4.5 m from other trees and can be pruned to create a dense triangular shape. Other pine species to consider for domestic planting include the long-needled red pine and the ponderosa pine.



**SIBERIAN ELM**

*Ulmus pumila*

A species introduced to the prairies, the Siberian elm is native to southern Siberia and northern China. It is a fast-growing deciduous tree, reaching a height of 5 m in 10 years and 10 to 12 m at the end of its 30-year lifespan. It prefers rich, moist soils and full sun but will grow in less ideal conditions. The main trunk divides into an extensively branching, dense, round crown that is susceptible to breakage in severe winds or from ice buildup.

- Grey-brown bark.
- Small, narrow, oval-shaped leaves, 2-3 cm long, with saw-toothed edges.
- Small flowers appear in clusters before leaf-out in spring.

**Planting tips:** The Siberian elm is intolerant of wet, poorly drained sites, sandy soils, and shade. It can withstand drought and is hardy in exposed areas but may suffer some top kill in severe winters. Recommended plant spacing is 6 m. Heavy seed production and branchlets that break easily in the wind make it less desirable for cultured landscapes.



**JACK PINE**

*Pinus banksiana*

The most northern of all pines and the Northwest Territories' official tree, jack pine varies from a small, scrubby tree on poor soils and rocky sites to about 24 m tall on favorable sites. Its slender branches twist and arch upward, spreading into an open, conical crown. In dense stands, the older lower branches die as the tree grows, leaving the trunk bare.

- Thin bark; reddish brown to grey on young trees; darker grey-brown on old trunks.
- Stiff, sharp-pointed pairs of yellowish green needles; often twisted and short.
- Compact, hard, curved cones grow upward on branches; can remain unopened for years.

**Planting tips:** Jack pine is not often used as an ornamental because its crown spreads rapidly on exposed sites. A slow-growing tree, it does well on thin, sandy soils. It should be planted 5 m away from other trees and cannot tolerate shade, alkaline soils, or excessive moisture.



**MANITOBA MAPLE**

*Acer negundo*

Native to the prairies, the Manitoba maple is common along lakeshores and watercourses in well-drained, moist sites but is very adaptable to a variety of conditions. It is fast growing, reaching a height of 6.5 m in 12 years and a mature height of 14 m or more in its 60- to 70-year lifespan. The trunk divides at or near the ground into crooked limbs that branch into a broad, uneven crown that is twisted and craggy in old age.

- Smooth, light grey-brown bark darkens and becomes furrowed with age.
- Light green leaves, 15-25 cm long, have 3-7 leaflets; turn rich yellow before dropping in early autumn.
- Small male and female flower clusters; long, broadly winged fruit pairs remain on tree in winter.

**Planting tips:** The Manitoba maple is easily transplanted but is not shade tolerant and should be planted 9 m from other trees. Prolific seed production, breakage in windy or icy conditions, and shoot or sucker growth are problems in cultured landscapes. Spring pruning during sap flow is not recommended.



**TAMARACK**

*Larix laricina*

Tamarack is usually found in cold, wet, poorly drained muskeg and swamp habitats, where it grows slowly and may reach only 15 to 18 m in height. On moist, well-drained soils it performs better and can reach heights of 25 m. Pyramidal in form, the crown is often irregular and ragged looking. The branches curve downward from the trunk and turn up at the ends. The tamarack is a conifer, but sheds its needles each autumn.

- Soft, slender, light green needles, 2-4 cm long; appear feathery; turn bright yellow before dropping.
- Thin, smooth, grey bark on young trees becomes reddish brown and scaly when mature.
- Light brown, 1.5-2.0 cm spherical cones remain on tree through winter and summer.

**Planting tips:** Tamarack is shade intolerant and should be spaced 5.25 m apart. Siberian larch can also be considered for domestic planting. It is similar to tamarack but has wider branching characteristics, hence a broader overall crown. It is intolerant of heavy, sandy, and alkaline soils.



**WHITE BIRCH**

*Betula papyrifera*

Native to the prairies and Saskatchewan's provincial tree, white birch grows on a wide variety of soils but does best on well-drained, sandy or silty loams. It is common along watercourses and in moist wooded areas. Shade intolerant, it thrives in burned or cutover areas, where it will form pure stands. Average height is 12 m, but some grow to 20 m. The narrow, oval crown extends from a slender trunk that often curves.

- Unusual, attractive bark is thin, smooth, and reddish brown on young trees, becoming chalky white to silvery grey with age; peels easily.
- Triangular or egg-shaped, pale green leaves turn brilliant yellow in fall.
- Small, inconspicuous flowers; small, broadly winged fruit.

**Planting tips:** White birch should be planted 4 m from other trees. It is susceptible to top kill, but heavy fall watering may prevent this. Its thin bark is easily damaged, leaving permanent visible scars. Birch trees should not be pruned during the spring when sap is flowing.



**LODGEPOLE PINE**

*Pinus contorta var. latifolia*

The most common and abundant tree in the Rocky Mountains and eastern slopes foothills and Alberta's provincial tree, lodgepole pine grows on a wide variety of sites, including gravelly ridges, sand dunes, and swamps. It frequently forms dense even-aged stands on burned-over sites. Up to 30 m or more in height, the lodgepole pine grows in a columnar shape, spreading to 13 m in crown width. The trunk grows straight and slender.

- Bark is thin, yellowish brown, and somewhat scaly.
- Sharp-pointed pairs of twisted dark to yellowish green needles, each 2.5 to 7.5 cm long; form dense clusters toward the ends of branches.
- Conical to egg-shaped cones with thick, prickly scales grow downward on branches; can remain on tree until opened by heat or fire; produce large numbers of seeds every 7-8 years.

**Planting tips:** The lodgepole pine grows best in full sun on well-drained loams, where it becomes an attractive landscape tree. It can be pruned to increase its density for use as a hedge, windbreak, or ornamental tree.



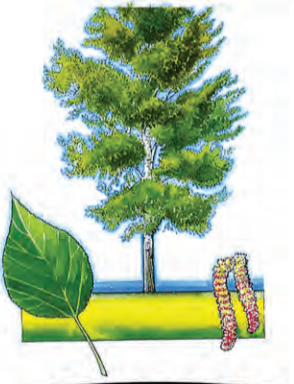
**GREEN ASH**

*Fraxinus pennsylvanica*

Green ash is usually found in river valleys on well-drained soils but is drought tolerant and winter hardy so performs well when planted in most locations in the prairie provinces. It reaches an average height of 12 to 15 m and has an oval, upright shape. Its growth rate is moderate, reaching 6.5 m in 15 years. The branches are concave, growing down from the trunk and curving upward at the ends.

- Greyish brown, smooth bark on young trees becomes darker and furrowed with age.
- Yellow-green, oblong, compound leaves, 25 to 30 cm long, with about seven oval leaflets 8 to 14 cm long; slow to leaf out in spring, its leaves turn rich yellow and drop early in the fall.
- Male and female flowers are on separate trees with hairless stalks; fruit occurs in clusters, with a wing extending from center of the seed.

**Planting tips:** Relatively long-lived, green ash will tolerate most soil conditions except sandy soils and can withstand drought and exposed areas, growing very slowly under dry conditions. Because it is intolerant of shade, the best spacing is 7 m.



**BALSAM POPLAR**

*Populus balsamifera*

Native to the boreal region, balsam poplar is a fast-growing, short-lived deciduous tree that reaches heights of 20 to 25 m. It has a long, straight, cylindrical trunk with short branches that open into a narrow, oval-shaped crown. It does best in moist, low-lying sites and can tolerate heavy, gravelly, alkaline, and wet soils and exposed areas. It performs poorly under very dry conditions. It can form pure stands or occur in mixed stands with a variety of species.

- Smooth greenish brown bark becomes dark grey, rough, and furrowed with age.
- Shiny green, finely toothed, egg-shaped leaves taper to a sharp tip; turn pale yellow before dropping in fall.
- Small inconspicuous flowers; dry, greenish brown fruit pod matures in spring and discharges minute seeds with long white hairs.

**Planting tips:** Balsam poplar can tolerate almost all growing conditions except shade. Because of its height and aggressive root suckering it is best suited to large, open areas. Male clones are preferable to avoid the fluffy, white cotton of the seeds produced by the female trees in the spring.



**WILLOW**

*Salix spp*

Willows are found along watercourses and in moist depressions throughout the prairies. They can withstand flooding for up to 3 weeks each year. Some do well in well-drained, upland sites, but willows perform poorly in dry locations. There are about 75 species of willow in Canada, and while easily separated from other native broad-leaved trees, the willow species are difficult to distinguish from one another. Most are low-growing shrubs, and only eight species reach tree size. Fast-growing trees, they reach 3 to 5 m in 7 to 8 years and a maximum height of 14 m in their 50- to 60-year lifespan.

- Unless pruned, is multiple-stemmed with wide, spreading crown.
- Long, narrow leaves pointed at both ends.
- Male and female flowers form catkins that appear before leaves emerge; small fruit pod splits when mature; releases tiny seeds and tufts of long silky hair.

**Planting tips:** Although it is an excellent, fast-growing shade tree, the moisture-seeking roots of the willow often cause problems when planted near water or sewer lines on domestic lots.



**WHITE SPRUCE**

*Picea glauca*

A characteristic tree of the boreal forest and Manitoba's provincial tree, white spruce is found almost everywhere in Canada. An extremely hardy tree, it grows in a variety of soils and climates but performs best on well-drained, moist, silty soils. It seldom forms pure stands and occurs instead in mixed stands with other conifers and deciduous trees. Capable of withstanding strong winds, excessive heat, drought, and crowding, it can reach heights of 20 to 25 m. A young white spruce is dense and pyramid-shaped but grows into a narrow, spiral shape with branches that droop to the ground.

- Brownish to silver-grey bark is thin, rough, and scaly.
- Stiff, blunt-tipped, four-sided needles, about 20 mm long, are aromatic when crushed; green to blue-green with a whitish bloom.
- Brown, slender, 5 cm long cylindrical cones have close-fitting scales, smooth edges; open to disperse seed in autumn, fall to ground in winter.

**Planting tips:** White spruce needs some protection during establishment and is intolerant of sandy and alkaline soils. It is shade tolerant so can be underplanted.