



PAPERBARK MAPLE

Acer griseum



General description

Small, deciduous, flowering tree native to China. Leaves are opposite, serrated and have a distinct **colour difference between the bluish-green top and pale green underside. Leaves have 3 separate leaflets on a small stalk** as opposed to the traditional maple leaf shape. Known for its **peeling, cinnamon-brown or copper, paper-thin bark. Branches grow upright.**

Flowers, fruit, seeds

Greenish flower with insignificant bloom. Flowers give way to large, green or gold winged seeds known as samaras.

Phenology

Flowers in spring (usually April). Leaves turn a brilliant, bright red colour in the fall.



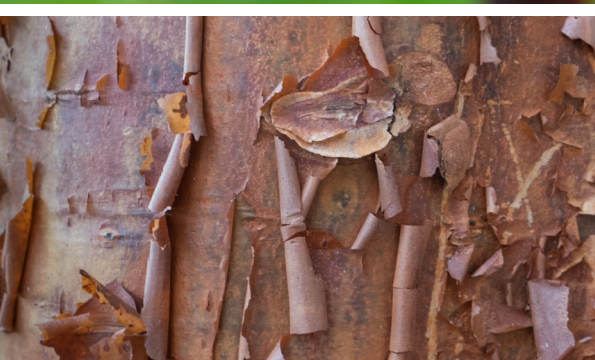
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What makes paperbark maple a good shade tree?

Remarkably free of pests, and when there are pests, they are rarely life-threatening to the tree. Tolerates sun, shade and wind. Fall colours and unique bark are sought after for their ability to beautify neighbourhoods. Attractive to birds and other wildlife. Anticipated to tolerate all but the driest sites under future climate.

Did you know?

Griseum name comes from the Latin word *groseus* meaning grey in reference to the colour of the underside of the leaves. Paperbark maples are known to be slow-growing.





EASTERN REDBUD

Cercis canadensis

General description

Small, deciduous tree native to eastern North America. **Large heart-shaped leaves** (up to 10 cm) **alternate**, and are often glossy. Young bark is smooth with lighter coloured cracks, while older bark is scaly with orange-brown patches. Grows in a rounded, vase-shape.

Flowers, fruit, seeds

Flowers are rosy pink and emerge directly from the branches. Fruit are **brownish-black, papery, flat pods** about 5–8 cm long.

Phenology

Flowers appear in April before the leaves emerge. Leaves turn a golden yellow in the fall. Fruit ripen in October and remain on the tree throughout winter.

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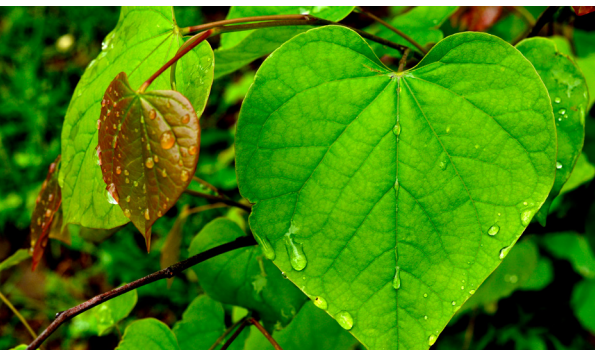


What makes eastern redbud a good shade tree?

Known for being a bold and striking ornamental tree thanks to its spring flowers. Highly drought tolerant and grows well in urban parks. Early blossoms attract nectar-seeking insects, while birds eat the seeds and use the canopy for nesting. Anticipated to tolerate a broad range of sites under future climate.

Did you know?

Eastern redbuds belong to the legume family. While leaves are similar in shape to katsura leaves, eastern redbud leaves are larger and grow alternate as opposed to opposite.





KOUSA DOGWOOD

Cornus kousa

General description

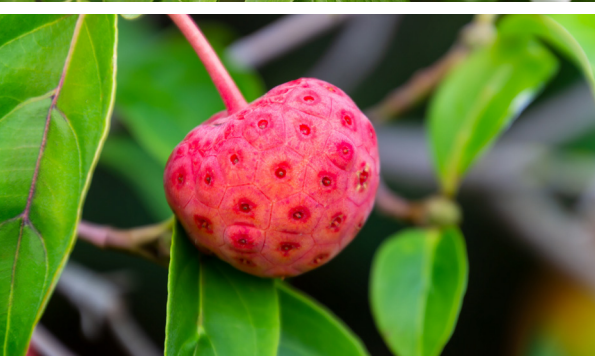
Small, deciduous tree native to eastern Asia, including China and Japan. Elliptic-ovate leaves are simple, opposite, about 5–10 cm long with smooth edges. **Leaf veins curve distinctively as they approach the margins. Bark peels and can have a camouflage-like pattern of brown, red and tan.** Known for large white ‘flowers’ and red fruit. Grows in a vase-shape when young, but becomes rounded with age.

Flowers, fruit, seeds

Flowers are greenish-yellow and grow upright. Four large, white bracts sit below the cluster of flowers and are often mistaken as petals. Fruit is red, round, and raspberry-like on long stems.

Phenology

Flowers stay on the tree for a long bloom time of up to six weeks. Fruit ripens August through October. Leaves turn purple or red in the fall.



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What makes kousa dogwood a good shade tree?

Considered cold hardy, drought tolerant and disease resistant compared to other varieties of dogwood trees. Generally considered visually appealing in every season. Recognized as being immune to fungus. Fruit is attractive for songbirds and squirrels.

Did you know?

Its flowers are much smaller than they seem; what appears to be a flower with large white petals and a green centre is actually a cluster of true flowers with specialized leaves below. They are also known as Chinese dogwoods or Japanese strawberry trees. Despite being called a strawberry tree, they are not closely related to the common strawberry plant.





LAVALLEI HYBRID HAWTHORN

Crataegus x lavellei

General description

Small, deciduous tree that is a hybrid of two hawthorns founded in France. **Leaves have a wavy surface, serrated edges**, and are about 5–10 cm long. **Bark is a combination of brown and grey with some peeling**. Branches have dark coloured bark and may have large thorns (up to 5 cm long).

Flowers, fruit, seeds

White flowers grow in clusters followed by **red-orange berries**, similar to rosehips. Fruit is larger than other hawthorns.

Phenology

Flowers appear in the spring and are followed by berries in the fall. Fruit remain on the tree through the winter. Leaves stay a dark glossy green into winter, eventually turning yellow and dropping.

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What makes lavellei hybrid hawthorn a good shade tree?

Highly drought tolerant and adaptable to many soil types. This species of hawthorn is reported to have good resistance to common tree diseases such as rusts and fireblight. Grows a dense crown and is attractive to birds. Dark bark and irregular branch structure make it an interest throughout the winter. Anticipated to tolerate a broad range of sites under future climate.

Did you know?

Hawthorns are known to be slow-growing. They belong to the rose family. Flowers are known to have an unpleasant fragrance. Fruit provides food source for wildlife through winter. The lavellei hybrid typically has less thorns compared to other hawthorns.





KOBUS MAGNOLIA

Magnolia kobus

General description

Small to medium, deciduous tree native to Japan. Known for being a multi-stemmed magnolia with a **broad, rounded shape**. **Leaves are large (7–20 cm long), dark-green, pointed at both ends and obovate (like an upside-down teardrop)**. Brown spots cover twigs. Mature bark is grey-brown.

Flowers, fruit, seeds

Flowers are white with a pink tinge, six-petalled, fragrant and very showy. Pink fruit with red seeds forming in pods.

Phenology

Flowers appear late winter or early spring and open in March before the foliage emerges. Fruit persists through the summer. Seedpods split open in fall. Leaves turn a yellowish-brown in the fall.



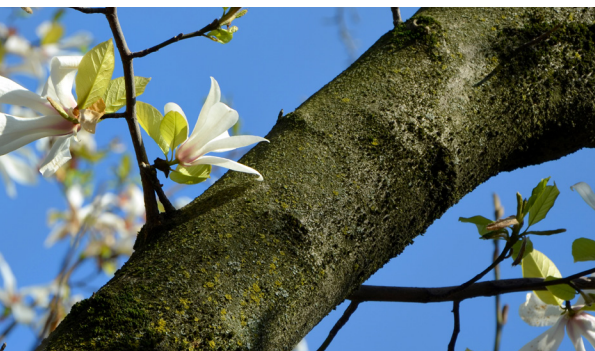
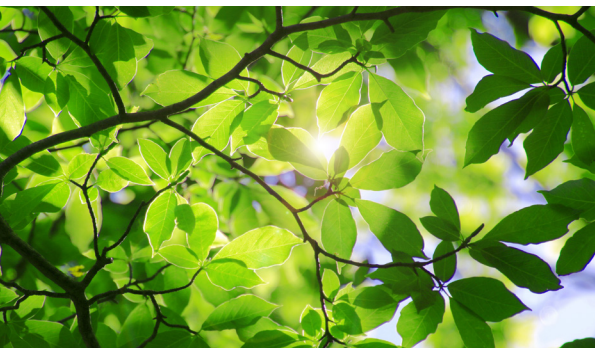
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What makes kobus magnolia a good shade tree?

Good canopy coverage. Typically chosen for its visual interest. Attractive to birds and other wildlife.

Did you know?

Young trees generally do not flower; it can take 25 years for the tree to reach its best flowering potential. It is said that the name *kobus* comes from the Japanese word kobushi meaning fist, in reference to the flower bud shape resembling a small fist. When twigs or branches break, they produce a strong smell.





EUROPEAN BEECH

Fagus sylvatica



General description

Medium to large, deciduous tree native to Europe. **Leaves are simple, elliptical, alternate, and have a slight shimmer. Leaf edges are wavy. Bark is smooth and grey resembling elephant skin.** Depending on the specific species, leaves may be dark green or dark purple.

Flowers, fruit, seeds

Flowers are inconspicuous and not showy. **Fruit (beechnut) is 1.5–3 cm in diameter and covered by a spiny exterior;** this exterior eventually opens and resembles a four-petalled flower with bushy spines.

Phenology

Flowers in April or early May. Leaves turn a golden, coppery-yellow in the fall. Some species have leaves that turn deep purple or golden yellow. Young trees will sometimes hold their leaves year-round. Buds are sharp, long and pointed, alternating on the branches.

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What makes European beech a good shade tree?

Grows a dense canopy, providing significant shade in warmer months. Striking fall foliage adds visual appeal to neighbourhoods. Beechnuts provide food for birds and mammals.

Did you know?

Because European beeches have long been cultivated, there are a number of different varieties. Dawyck gold and Dawyck purple varieties are similar and grow in a columnar shape. A common complaint is of the sticky residue excreted by aphids living on the leaves.





WHITE ASH

Fraxinus americana



General description

Medium, deciduous tree native to eastern North America. **Leaves grow opposite and are made up of 7–9 dark-green leaflets with smooth edges.** Young bark is smooth. Mature bark is thick, dark, and grey with a uniform, diamond-shaped ridge and furrow pattern.

Flowers, fruit, seeds

Flowers are numerous, very small, and green to purplish. They grow in clusters near the branch tips. **Fruit are winged seeds (known as samaras) about 2.5–5 cm long hanging in clusters.**

Phenology

Flowers in April or May, before the appearance of leaves. Fruit visible from August through October. Leaves change colour in the fall; copper or maroon are common.

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What makes white ash a good shade tree?

Large, spreading canopy blocks sunlight and adds visual interest and beauty. Generally tolerant to urban conditions.

Did you know?

White ash belongs to the olive family. The common name is in reference to the white colour of the wood. Ash trees in eastern North America are in decline due to attacks from the invasive emerald ash borer beetles.





GREEN ASH

Fraxinus pennsylvanica



General description

Medium, deciduous tree native to eastern and central North America. **Leaves are compound, about 30 cm long, and made up of 5–7 serrated leaflets. Leaves are a dark green on top and a lighter green on the underside. Branches grow opposite**—they grow directly across from each other rather than staggered. Young trees have smooth, grey bark while mature trees have diamond-shaped ridges.

Flowers, fruit, seeds

Flowers grow in green to reddish-purple clusters and lack petals. While they produce fruit, seedless varieties are typically chosen for urban spaces.

Phenology

Flowers appear as leaves unfold, typically in April. Leaves turn bright yellow in the fall.

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What makes green ash a good shade tree?

This tree does well in most conditions. It's known for its good form and resistance to disease. It tolerates urban pollution and soil compaction, and is highly drought tolerant. It grows quickly and produces a spreading canopy.

Did you know?

While once widely planted, these are not planted as often anymore. Green ash is known to be susceptible to branch breakage and windthrow. In eastern Canada, emerald ash borer beetles pose a threat to these trees.





PERSIAN IRONWOOD

Parrotia persica

General description

Medium, deciduous tree native to northern Iran. **Leaves are simple and glossy green with wavy margins.** Ovoid-shaped leaves are 5–12 cm long and alternate. Young trees have smooth, grey bark. **Mature trees have smooth bark with peeling patches of grey, white and green.**

Flowers, fruit, seeds

Flowers often go unnoticed; they have red stamens (tentacle-like) but no petals.

Phenology

Flowers emerge in spring. New foliage opens reddish-purple in spring, turning a dark green in summer then turning a spectrum of brilliant orange, red and yellow in the fall.

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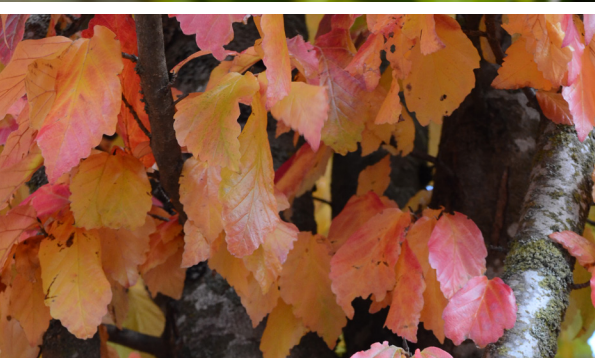


What makes Persian ironwood a good shade tree?

Tolerates drought, pollution, and varied temperatures. Known for being free of pests and disease. One of the best trees for striking leaf colours. Specific varieties grow a good V-shape for growing under power lines. Anticipated to tolerate all but the driest sites under future climate.

Did you know?

While the assumption is often that the name comes from the colourful leaves comparable to tropical parrots, the genus *Parrotia* honours F.W. Parrot (1792-1841), a German naturalist and traveller.





JAPANESE CHERRY

Prunus serrulata



General description

Small to medium, deciduous tree native to Japan. **Oval leaves are simple, doubly serrated, alternate, and 6–10 cm long. They are dark green above and light green on the underside. Bark is grey and can be smooth or furrowed; it has many large lenticels (pores) and often has horizontal lines.**

Flowers, fruit, seeds

Flowers are small (5 cm), white to pink and grow in clusters. **Cherry blossoms have a small split at the end of each petal.** Fruit is pea-sized and black; most varieties planted in cities have been cultivated to produce no fruit.

Phenology

Flowers bloom between late March and early May. Fall colour varies from shades of bronze and red to yellows.

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What makes Japanese cherry a good shade tree?

High ornamental value in the spring due to its impressive cherry blossoms. Attractive to birds and pollinators. Anticipated to tolerate all but the driest sites under future climate.

Did you know?

Many hybrid varieties are celebrated for different characteristics such as having flowers that hold up in rain, resisting disease and more. Cherry blossoms can be distinguished from plum tree blossoms by the split at the end of each petal; plum trees have no split.



HONEY LOCUST

Gleditsia triacanthos 'Halka'



General description

Large, deciduous tree native to central and southeastern United States. **Fern-like leaves (up to 20 cm long) are bipinnately compound, bright green, and made up of 14–26 leaflets. Twigs have alternate buds.** Young bark is smooth, tan-olive to grey-olive with many lenticels (pores on the stem). Mature **bark is grey-brown** with plate-like patches separated by fissures. The 'Halka' honey locust is known for its **oval or round-headed crown** and for rarely producing fruit.

Flowers, fruit, seeds

Small greenish flowers are arranged in a grape-like arrangement and are mostly inconspicuous. Fruit are 4 cm long twisting pods that change from yellow-green to brown-red. Some varieties have been cultivated to be thornless and produce minimal fruit.

Phenology

Flowers in spring. Leaves turn yellow in fall.



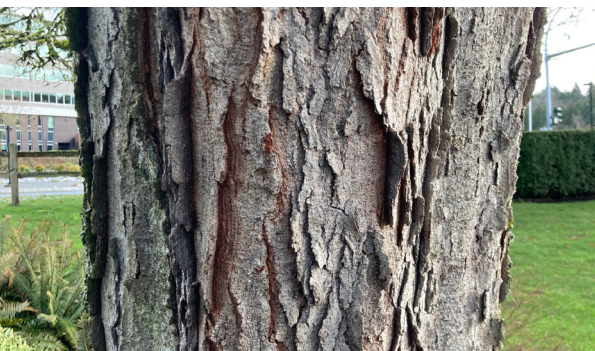
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What makes honey locust a good shade tree?

Very tolerant to urban conditions and adaptable to many soil types. Drought tolerant. Anticipated to tolerate a broad range of sites under future climate.

Did you know?

It belongs to the legume family. Wild varieties have large thorns on the trunk and branches; scientists hypothesize that the trees evolved with the large thorns to protect against large mammals during the Pleistocene era.





KATSURA TREE

Cercidiphyllum japonicum

General description

Large, deciduous tree native to China and Japan. **Leaves are mostly round to heart-shaped, opposite, and about 5–10 cm long with scalloped edges.** Bark is brown to grey-brown. Young bark is smooth, while mature bark is shaggy and furrowed. **Branches are very fine and delicate.**

Flowers, fruit, seeds

Flowers are small, and vary from male to female trees. Fruit is in clusters of 2–4 small, brown capsules.

Phenology

Flowers emerge in spring with new leaves. Fruit ripens in summer and persists through winter. Leaves change colour throughout the year; new growth is bright red-purple, **fall colour is yellow to apricot-orange.**

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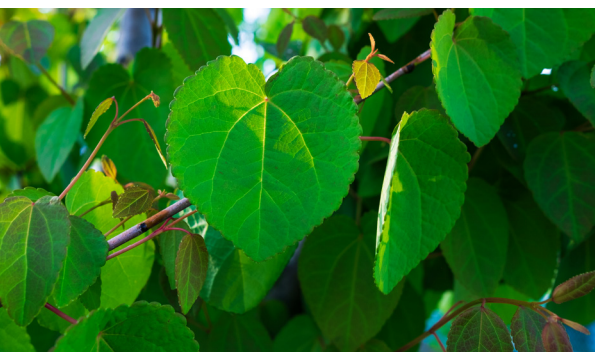


What makes katsura tree a good shade tree?

Often chosen for its attractive foliage. Casts medium shade.

Did you know?

On warm days, and in fall, the leaves give off a toffee-like sugary scent. It has been called the largest deciduous tree of China. Its genus, *cercidiphyllum*, refers to the similar leaves of eastern redbud trees. While leaves are similar in shape, katsura leaves are smaller and grow opposite as opposed to alternate.





NORWAY MAPLE

Acer platanoides



General description

Medium, deciduous tree native to Europe. **Leaves are opposite, glossy green (may vary), have 5 sharply pointed lobes, and resemble sugar maple leaves.** Young bark is grey and smooth. Mature bark is grey or brown, and rough with narrow ridges. There are many cultivated varieties.

Flowers, fruit, seeds

Flowers are small, yellow or yellow-green, and appear in clusters. Samaras (winged seeds) are green or light brown with horizontal spreading wings.

Phenology

Flowers emerge in spring, turning into samaras that remain on the tree through summer. Leaves turn yellow, red, red-purple, or orange in fall depending on the variety.



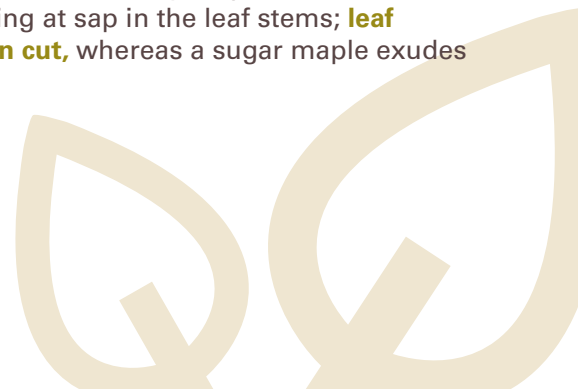
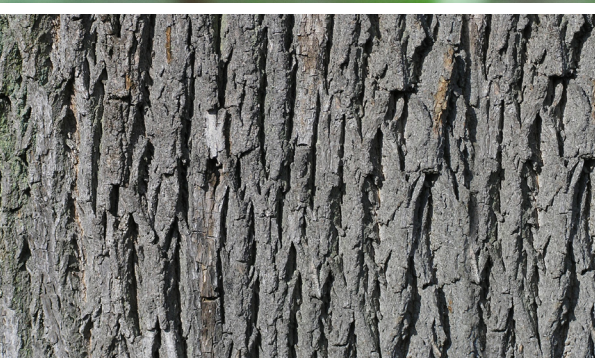
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What makes norway maple a good shade tree?

Historically it's been widely planted along streets. While it has a shallow root system and can adapt to many soil types and urban conditions, it is generally avoided now due to classification as an invasive species elsewhere. They also require a lot of space.

Did you know?

Belongs to the horsechestnut family. Norway maples were brought to North America in the 1700s. Little vegetation (including grass) grows underneath these trees due to their shallow roots. The primary way to distinguish between Norway maple leaves and sugar maple leaves is by looking at sap in the leaf stems; **leaf stems exude a milky sap when cut**, whereas a sugar maple exudes clear sap.





SCARLET OAK

Quercus coccinea



General description

Large, deciduous tree native to southeastern United States and southern Canada. **Leaves are 15 cm long, dark green on top and paler green on the underside. Leaves have deep-cut, pointed lobes with C-shaped leaf sinuses (between the lobes).** Young bark is grey and smooth while mature bark is brown with fissures.

Flowers, fruit, seeds

Flowers vary between male to female. Male flowers are yellow-green, slender catkins. Female flowers are more reddish-green, small and close to stem. Fruit (acorn) is 1–2.5 cm long. **Acorn cap encases half the acorn.**

Phenology

Flowers in April or May. Glossy green in summer, **scarlet red in fall.** It is one of the last trees to change colour, and leaves persist through winter.

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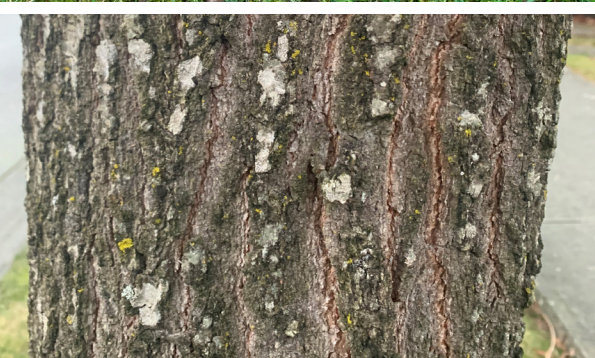


What makes scarlet oak a good shade tree?

Fast-growing and tolerates many soil types. Often chosen for boulevards due to its upright branching. Attractive to wildlife; its acorns are an important food source for large songbirds, squirrels and other wildlife. Anticipated to tolerate all but the driest sites under future climate. Good alternative to the aphid-prone pin oak.

Did you know?

Every three to five years, scarlet oaks produce an unusually large crop of acorns. Leaf sinuses can help distinguish a scarlet oak (C-shape) from a pin oak (U-shape).





RED HORSECHESTNUT

Aesculus x carnea, hippocastanum

General description

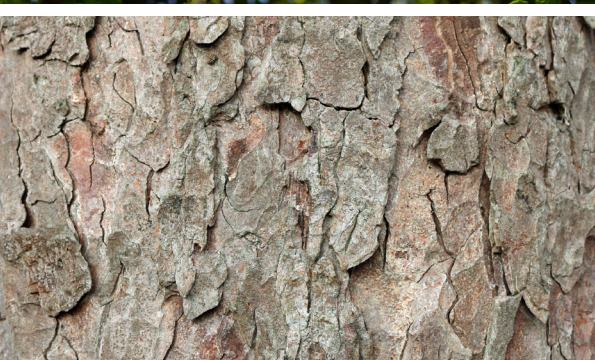
Large, deciduous tree native to southeastern Europe, specifically Albania and Greece. **Leaves are palmately compound, made up of 5–7 leaflets, deeply-veined, and dark green with fine, serrated edges.** Young bark is grey-brown and smooth, but mature bark eventually develops small fissures with rounded plates.

Flowers, fruit, seeds

Flowers grow in clusters or 'candles' (12–30 cm) and vary from white to pink or red depending on species. **Fruit is a round, spiky green case with glossy-brown nuts inside.** The nuts are toxic and should not be confused with edible chestnuts.

Phenology

Flowers for about two weeks in the spring, usually early to mid-May. Nuts ripen in September or October. **Large, sticky terminal buds** stand out in the winter; their dark brown colour contrasts the grey bark.



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What makes red horsechestnut a good shade tree?

While they have a low tolerance to drought and to poor drainage, they provide dense shade and are valued for their ornamental properties. Attractive to hummingbirds, insect pollinators, and small mammals.

Did you know?

Horsechestnuts and chestnuts are in totally different families. Chestnuts are in the beech family and produce edible nuts, while horsechestnuts are in the soapberry family and produce poisonous nuts. Nuts have been used by children in a game of “conkers.”





PIN OAK

Quercus palustris

General description

Large deciduous tree native to northeastern United States and southern Ontario. **Leaves are dark green, glossy, 7–15 cm long, with 5 (sometimes 7 or 9) lobes separated by deep U-shaped sinuses (between the lobes). Bark is smooth, grey-brown and develops ridges on mature trees.** Pyramidal crown; upper branches point up, middle branches extend perpendicular, and lower branches point down.

Flowers, fruit, seeds

Yellow-green flowers and hanging catkins about 12–18 cm long. Acorns are nearly round, 1–2 cm long, with a thin, saucer-like cap.

Phenology

Catkins appear in April or May. Leaves turn yellow, red then russet-brown in the fall. Leaves may persist through winter. **Distinctive pyramidal branching visible in winter.**

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What makes pin oak a good shade tree?

Provides dense shade. Relatively fast-growing and tolerant of pollution and heat. Pin oaks are less frequently attacked by common oak diseases compared to other oaks. Acorns are an important food source for wildlife.

Did you know?

These trees won't produce acorns until they are about 15–20 years old. The name pin oak comes from the branching arrangement; in the wild, the lower branches are often shaded out and break off leaving pin-like stubs. May be susceptible to common oak pests such as borer beetles, oak skeletonizers or aphids; a common complaint is of the sticky residue excreted by aphids that live on the leaves.





BLACK GUM

Nyssa sylvatica

General description

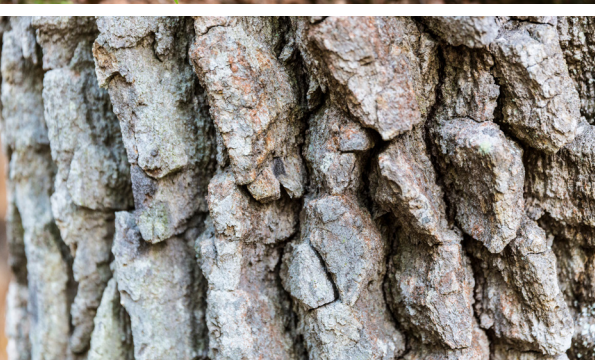
Large deciduous tree native to Florida, Maine and Texas. **Oval leaves are simple, dark green, and up to 12 cm long. Young bark is grey and flaky. Bark matures to medium grey and furrowed resembling alligator skin.**

Flowers, fruit, seeds

Flowers are small, greenish-yellow and inconspicuous. **Fruit is blue-black, plum-like and about 1–2 cm long.**

Phenology

Leaves turn striking colours of yellow, orange, purple and bright red in the fall. Fruit ripen early fall as the leaves change colour.



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What makes black gum a good shade tree?

Very tolerant of poorly-drained soils and can grow in standing water. While it is shade tolerant it has a low tolerance for urban pollution. Attractive to birds and insect pollinators.

Did you know?

Flowers are not showy, but provide a good source of nectar for bees. Black gum trees have many names; they are also called sour gums, pepperidges, or black tupelos. Despite their name, they produce no gum. A close relative, the water tupelo, is often seen growing in standing water and in swamps in southeastern United States coastal areas.





SWEETGUM

Liquidambar styraciflua

General description

Large deciduous tree native to southeastern United States. **Star-shaped leaves are alternate, glossy green, and made up of 5 lobes.** Bark is grey-brown and deeply furrowed into narrow, somewhat round ridges. **Corky outgrowths on the twigs and branches.**

Flowers, fruit, seeds

Flowers are greenish-yellow and inconspicuous. **Fruit is woody, bristle-like 'gum' balls holding brown seeds.**

Phenology

Leaves turn tones of orange, purple, and red in the fall, and may remain on the tree through early November. Flowers mid-spring, followed by bristly fruit.



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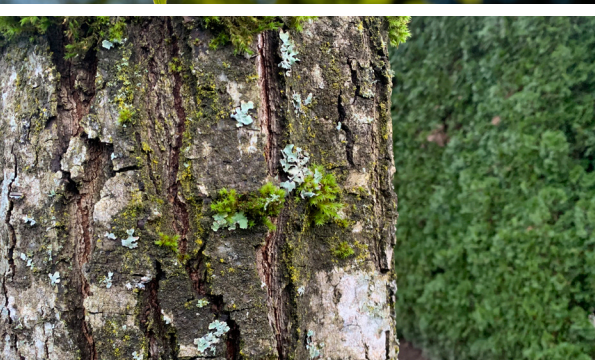
What makes sweetgum a good shade tree?

Known for its attractive shape. One of the most reliable fall colour displays on the West Coast. Attractive to birds and other wildlife. Anticipated to tolerate all but the driest sites under future climate.

Did you know?

Liquidambar from the Latin *liquidus* and the Persian *ambar* refer to the fragrant resin that collects when bark is damaged.

The Worplesdon variety is a popular choice because it is more resistant to branch breakage.





TULIP TREE

Liriodendron tulipifera

General description

Large deciduous tree native to eastern United States. **Tulip-shaped leaves have a flat base and 2 ear-like tips.** Leaves are light green, 7–15 cm long, and alternate. Young bark is light ashy-grey with very shallow, longitudinal, whitish furrows. Mature bark becomes very thick, having deep interlacing furrows and narrow rounded ridges.

Flowers, fruit, seeds

Tulip-shaped flowers are yellow to lime green, grow upright. Fruits are in cone-shaped clusters with seeds that are held upright.

Phenology

Flowers in May and June. Seeds are held in the tree throughout summer and into fall. Leaves turn a vibrant yellow in the fall.

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What makes tulip tree a good shade tree?

Provides many forms of food for wildlife throughout the year. Anticipated to tolerate all but the driest sites under future climate.

Did you know?

Known for being fast-growing and the tallest growing deciduous tree in North America. Tulip trees are part of the magnolia family. Historically used by loggers for railroad ties, furniture, fence posts, and canoes. Popular honey plant in eastern United States. Aphids are an issue in urban settings.





WESTERN REDCEDAR

Thuja plicata

General description

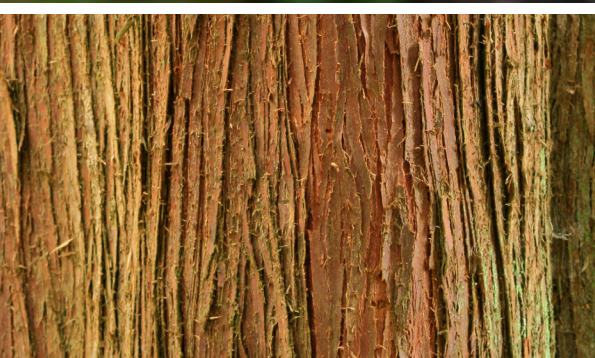
Large coniferous tree native to BC's coast and through the Pacific Northwest. **Scale-like, flat leaves are green with white 'butterfly markings' on the underside. Branches tend to spread or droop then turn up (J-shape, or 'monkey tails'). Bark is grey to reddish-brown, with long fibrous strips.**

Flowers, fruit, seeds

No flowering period. Pollen cones are very small (2 mm), numerous and appear on separate branches than seed cones. **Small seed cones (1 cm long)** change from green to brown and woody. Tiny seeds are protected inside.

Phenology

Evergreen.



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What makes western redcedar a good shade tree?

Shade-tolerant, native to the area, and provides strong habitat value. Good choice for parks and medians; however, it has a low tolerance to drought due to its shallow root system.

Did you know?

Wood and needle-like leaves have a strong aroma. Used traditionally by Northwest Coast peoples for a wide variety of things including food, medicine and tools. The Western redcedar is an important part of Indigenous cultures for both spiritual and practical importance. It is sometimes called *arborvitae* which is Latin for tree of life. It is British Columbia's provincial tree.





DAWN REDWOOD

Metasequoia glyptostroboides

General description

Large deciduous conifer native to China. **Needle-like leaves are bright green, flat and feathery. Young bark is reddish-brown. Mature bark is dark grey, scaly, fissured and may appear as having papery, ribbon-like strips.**

Flowers, fruit, seeds

Small (1.5–3 cm), brown and round cones. Tiny oat-like seeds are protected inside the cones.

Phenology

No flowering period. Leaves turn a warm orange-brown or red-brown in the fall.



Surrey Parks

What makes dawn redwood a good shade tree?

Requires minimal maintenance and has a very fast growth rate. Tolerates pollution, can grow in diverse soil types (preferring moist soils), and is well-suited for urban parks.

Did you know?

Unlike most conifers, this tree is uniquely deciduous; its leaves change colour and drop annually. It grows at a fast rate with height increases of more than 90 cm per year. This tree has an interesting history and was once thought to be extinct. It was rediscovered in 1941 as a fossil and later growing in the wild in China.

