

Japanese maple Description

Description

An older tree in spring and autumn

Acer palmatum is a [deciduous shrub](#) or small [tree](#) reaching heights of 6 to 10 m (20 to 33 ft), rarely 16 metres (52 ft), often growing as an understory plant in shady [woodlands](#). It may have multiple trunks joining close to the ground. In [habit](#), it is often shaped like a hemisphere (especially when younger) or takes on a [dome](#)-like form, especially when mature. The [leaves](#) are 4–12 cm long and wide, palmately lobed with five, seven, or nine acutely pointed lobes. The [flowers](#) are produced in small [cymes](#), the individual flowers with five red or purple sepals and five whitish petals. The [fruit](#) is a pair of winged [samaras](#), each samara 2–3 cm long with a 6–8 mm seed. The seeds of Japanese maple and similar [species](#) require [stratification](#) in order to [germinate](#).

Even in nature, *Acer palmatum* displays considerable [genetic variation](#), with [seedlings](#) from the same parent tree typically showing differences in such traits as leaf size, shape, and color. Overall form of the tree can vary from upright to weeping.

Colored leaves of a Japanese maple at the [Nison-in](#) temple in [Kyoto](#)

Three [subspecies](#) are recognised:

- *Acer palmatum* subsp. *palmatum*. Leaves small, 4–7 cm wide, with five or seven lobes and double-serrate margins; seed wings 10–15 mm. Lower altitudes throughout central and southern Japan (not Hokkaido).
- *Acer palmatum* subsp. *amoenum* (Carrière) H.Hara. Leaves larger, 6–12 cm wide, with seven or nine lobes and single-serrate margins; seed wings 20–25 mm. Higher altitudes throughout Japan and South Korea.
- *Acer palmatum* subsp. *matsumurae* Koidz. Leaves larger, 6–12 cm wide, with seven (rarely five or nine) lobes and double-serrate margins; seed wings 15–25 mm. Higher altitudes throughout Japan.

Cultivation and uses



This Japanese maple shows a [dome](#)-like shape.

Japanese maple has been cultivated in Japan for centuries and in [temperate](#) areas around the world since the 1800s. The first specimen of the tree reached England in 1820.

When Swedish doctor-botanist [Carl Peter Thunberg](#) traveled in Japan late in the eighteenth century, he secreted out drawings of a small tree that would eventually become synonymous with the high art of oriental gardens. He gave it the species name *palmatum* after the hand-like shape of its leaves, similar to the centuries-old Japanese names *kaede* and *momiji*, references to the 'hands' of frogs and babies, respectively.

For centuries Japanese horticulturalists have developed cultivars from maples found in Japan and nearby Korea and China. They are a popular choice for [bonsai](#) enthusiasts and have long been a subject in art.

Numerous [cultivars](#) are currently available commercially and are a popular item at [garden centres](#) and other retail stores in [Europe](#) and [North America](#). Red-leaved cultivars are the most popular, followed by cascading green shrubs with deeply dissected leaves.

Preparations from the branches and leaves are used as a treatment in traditional Chinese medicine.

Growing conditions



Fall maples in Nara, Japan

Acer palmatum includes hundreds of named cultivars with a variety forms, colors, leaf types, sizes, and preferred growing conditions. Heights of mature specimens range from 0.5 m to 25 m, depending on



type. Some tolerate sun, but most prefer part shade, especially in hotter climates. Almost all are adaptable and blend well with [companion plants](#). The trees are particularly suitable for borders and ornamental paths because the root systems are compact and not invasive. Many varieties of *Acer*

palmatum are successfully grown in containers.^[13] Trees are prone to die during periods of drought and prefer consistent water conditions; more established trees are less prone to drought. Trees should be mulched with a thick layer of bark. Well-drained soil is essential as they will not survive in soggy waterlogged soil. Trees do not require or appreciate heavy fertilization and should only be lightly fertilized, preferably using slow-release fertilizer with a 3 to 1 ratio of nitrogen to phosphorus respectively. Nitrogen lawn fertilizer should be avoided in the immediate vicinity of these trees as excessive nitrogen can cause overly vigorous growth that is prone to pathogens.

Pruning

If space is not a constraint, no pruning is necessary except to remove any dead branches. Trees naturally self-prune foliage that doesn't receive enough light, such as internal branches which are overly shaded by its own canopy. Some growers prefer to shape their trees artistically or to thin out interior branches to better expose the graceful main branches. The form of the tree, especially without leaves in winter, can be of great interest and can be pruned to highlight this feature. Trees heal readily after pruning without needing aftercare. This species should not be pruned like a hedge, but instead methodically shaped by carefully choosing individual branches to remove. They can also be pruned just to maintain a smaller size to suit a particular location. Japanese maples can also be used as [espalier](#).

Cultivars

Over 1,000 [cultivars](#) have been chosen for particular characteristics, which are [propagated](#) by asexual reproduction most often by [grafting](#), but some cultivars can also be propagated by [budding](#), [cuttings](#), [tissue culture](#), or [layering](#). Some cultivars are not in cultivation in the [Western world](#) or have been lost over the generations, but many new cultivars are developed each decade.^[7] Cultivars are chosen for [phenotypical](#) aspects such as leaf shape and size (shallowly to deeply lobed, some also palmately compound), leaf color (ranging from chartreuse through dark green or from red to dark purple, others [variegated](#) with various patterns of white and pink), bark texture and color, and growth pattern. Most cultivars are less vigorous and smaller than is typical for the species, but are more interesting than the relatively mundane species. Cultivars come in a large variety of forms including upright, broom, weeping, cascading, dwarf, and shrub. Most cultivars are [artificially selected](#) from seedlings of open-pollinated plants, purposeful breeding is not common, and less often from grafts of [witch's brooms](#).



Example of leaf variation among various cultivars of Japanese maple

In Japan, *romomiji* is used as an accent tree in Japanese gardens, providing gentle shade next to the house in the summer and beautiful colors in autumn. Many cultivars have characteristics that come into prominence during different seasons, including the color of new or mature leaves, extraordinary autumn color, color and shape of samaras, or even bark that becomes more brightly colored during the winter. Some cultivars can scarcely be distinguished from others unless labeled. In some cases, identical cultivars go by different names, while in other cases, different cultivars may be given the same name.

Example cultivars

A selection of notable or popular cultivars, with brief notes about characteristics that apply during at least one season, includes the following.^[7] agm indicates the cultivar has gained the [Royal Horticultural Society's Award of Garden Merit](#).