

Prunus trees in the parks of Timișoara

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Abstract *Prunus* is one of the frequent tree species that can be found in the streets and green spaces of Timișoara. There are many parks and private domains in the town where you can find this species in greater or smaller numbers. It was always very common in the town, especially in yards, some of the parks and avenues. Generally speaking *Prunus* trees are a usual presence in the green spaces of Central Europe, because of their nice flowers without being excessively sensible or very expensive.

Key words

Park, trees, *Prunus*, Timișoara

Prunus Genus L.

This large genus, mostly from northern hemisphere, includes the edible stone fruits - cherries, plums, apricots, peaches, nectarines and almonds - but is also represented in gardens by ornamental species and cultivars with beautiful flowers. While the genus includes several shrubby species, most are trees growing on average to 4,5m, although some can reach as much as 30m. Most of the familiar species are deciduous and bloom in spring (or late winter in mild climates), with scented, 5 petalled, pink or white flowers. The leaves are simple and often serrated and all produce fleshy fruit containing a single hard stone. Many have attractive foliage colors in fall, and others have interesting bark. The timber of cherries and plums is sometimes used commercially.

The genus *Prunus* consists of about 430 species, and these are divided among 5 or 6 easily recognized subgenera, treated as distinct genera by botanists in some countries. They are: *Prunus* in the narrow sense, which includes all the plums; sometimes included in this subgenus but sometimes kept separate are *Armeniaca*, the apricots; *Amygdalus* includes peaches, nectarines and almonds as well as a few ornamental species with similar stalkless blossoms and pitted stones; *Cerasus* includes all the cherries and flowering cherries with few-flowered umbels; mainly North American, with small flowers in long racemes; and finally there are the ever-greens in subgenus *Laurocerasus*, also with flowers in racemes and including the well-known cherry laurel and its allies and large group of tropical rain-forest trees from Asia and the Americas.

Cultivation: Plant in moist, well drained soil in full sun but with some protection from strong wind for the spring blossom. Keep the ground around base of trees free of weeds and long grass and feed young trees with a high-nitrogen fertilizer. Many of the fruiting varieties respond well to espaliering. Propagate by grafting or from seed- named cultivars must be grafted or buded

onto seedling stocks. Pests and diseases vary with locality.

Prunus avium L. (Cerasus avium (L.) Moench.) fig. 6
Gean, Mazzard, Sweet cherry, Wild cherry

Native to Europe and western Asia, this species is the major parent of the cultivated sweet cherries. It can reach 18m in height, with a rounded crown and stout, straight trunk with banded reddish brown bark. The pointed, dark green leaves are up to 6, (15cm) long and turn red, crimson and yellow before dropping. profuse white flowers appear in late spring before the leaves and are followed by black-red fruit which in the wild forms may be sweet or somewhat bitter, but not acid. The cultivated cherries are rarely self-fertile, so trees of 2 or more different clones are usually necessary for fruit production. Cherry wood is prone to fungus and so the tree should not be pruned in winter or in wet weather. The ornamental cultivar 'Plena' carries a mass of drooping, double white flowers.

Prunus cerasifera Ehrh. Fig. 7,8

Cherry plum, Myrobalan, Purple -leaved plum

Native to Turkey and the Caucasus region, this small fruited thornless plum has long been cultivated in Europe. It grows to about 9m and is tolerant of dry conditions, with an erect, bushy habit smallish leaved that are slightly bronze tinted. Profuse, small white flowers appear before the leaves, in spring in cool climates and in late winter in milder ones, followed by edible red plums up to 30mm diameter in summer. There are many ornamental cultivars of this species, the most widely grown being those with deep purple foliage. *Nigra* is slightly smaller than the normal *Prunus cerasifera* and has vibrant, deep purple leaves turning more blackish purple in late summer; in spring it bears single, pale pink blossoms with red calyx and stamens. The cherry-size red fruit are edible but sour. 'Pisardii' (syn. *Atropurpurea*) fig. 9 was the original purple leaved plum, sent to France in 1880 by M. Pissard, gardener to the throne of Persia. It has new foliage of green colour turning dark purple. The flower

buds open white in spring. Other purple cultivars include 'Newport', 'Thundercloud' of American origin and 'Elvis'. It has pretty white flowers massed on arching branches. It grows only to about 3m, and blossoms in mid spring.

Prunus cerasus fig. 1,2,3

Sour cherry, Morello cherry

The fruiting cherries of Europe and Western Asia have been subject of much confusion concerning their botanical identities. Many of the forms are placed under the same name *Prunus cerasus*, characterized by a smaller, more bushy growth form than that of *P. avium*, suckering from the roots, and acid fruit. Its wild origin is unknown and botanists suspect it may have a common ancestry with *P. avium*. The plants are self-fertile, so an isolated tree is capable of setting fruit, but like the sweet cherry, it needs cold winters for successful growth. *P.c. var. austera*, the morello cherry, has pendulous branches and has blackish fruit with purple juice; the red amarelle cherries with clear juice belong to *P.c. var caproniana*.

Prunus laurocerasus L. fig. 4

Cherry laurel, Laurel cherry

Both the botanical and common name of this handsome evergreen reflect the resemblance of its foliage that of the true laurel (*Laurus nobilis*) and the two plants are sometimes confused. Native to the Balkans, Turkey, and the Caspian region, it has been grown in western Europe since the sixteenth century. It is commonly grown as a hedge, but if it is unclipped can reach as much as 15 m in height. The shiny, bright green leaves are 6 in 15cm or more long; in mid to late spring it bears upright, sweetly scented white flowers followed by red berries that ripen to black in autumn. One of the toughest of evergreens, cherry laurel tolerates alkaline soils and will grow in shade. In Timisoara can be found caucazia cultivar, which is the most frost hardy of this species.

Prunus padus L. (*Padus racemosa* Lam.) C.K. Schneid.)

Bird cherry

This temperate Eurasian tree grows around 15m tall, though considerably less in gardens. Its leaves are 10cm long, with serrated edges, with fine hairs, often developing orange in autumn. The flowers are 12mm wide. Pea sized black fruits are attractive to birds.

Justitie Park (Park of Justice) is situated in the center of Timisoara, near the town hall, in an area surrounded by large boulevards and on one part by the river Bega. The park has nice old trees of different species, while the grassy areas are smaller in size. There are a few monuments too. There are 20 *P. Cerasifera* trees in the park, their age is about 25- 30 years, their height is near 7m, the diameter of the tree crowns is about 3m, the total volume of the crowns 100m³. There are 15 *P. pissardi* trees in the park. The trees are 10 years old, 3m high, the diameter of the crowns is 0,5m, the volume of the crowns is 18m³ There is one *P.*

Armeniaca tree in the park, it is 12 years old, 3m high, the diameter of the tree crown is 2m, the volume of the crown is 2m³

There is one *P. Cerasus* tree in the park. It is 20 years old, 6m high, the diameter of the crown is 3m, the volume 3 m³ There is one *P. Avium* tree in the park, 9m high, 25 years old, the diameter of the crown is 4m, the volume of the crown 8 m³. There are 5 *P. Mahaleb* trees in the park. The trees are 20 years old, the height of the trees is 5m, the diameter of the crowns in 2,5m, the total volume of the crowns is 20 m³. There are 2 *P. Persica Atropurpurea* trees in the park. The trees are 15 years old, 3m high, the diameter of the crown is 2m, the volume of the crowns 3 m³. There 2 *P. Plicata* trees in the park. The trees are 4m high, 25 years old, the diameter of the crowns is 3m, the total volume of the crowns is 4 m³.

The trees are situated mainly in the neighbourhood of the Hydrotechnics building of the Politechnic Institute, near C.D. Loga road, and in the central parts of the park, and near Faleza restaurant.

Copiiilor (Childrens) Park is situated in Timisoara on the bank of the river Bega near the center of the town. It has nice old trees of different species and used to have playgrounds for children. There are 9 *P. cerasifera* trees in the park, aged between 10 and 20 years. The height of the trees is 4 to 6m. The diameter of the tree crowns is between 2 and 3m, the total volume of the tree crowns is 25 m³. There are 31 *P. pissardi* trees in the park., aged between 20 and 25 years. The height of the trees is between 10 and 12m. The diameter of the crowns is between 4 and 5m, the total volume of the tree crowns is 120 m³. There are 5 *P. amygdalus* trees in the park, aged between 15 and 20 years. The height of the trees is 4 to 6m. The diameter of the tree crowns is between 2 and 3m, the total volume of the tree crowns is 50 m³.

There are 2 *P. laurocerasus* trees in the park, aged between 10 and 15 years. The height of the trees is 2 to 2,5m. The diameter of the tree crowns is between 2 and 4m, the total volume of the tree crowns is 10 m³.

There is one *P. avium* tree in the park, aged 20 years. The height of the tree is 8m. The diameter of the tree crown is 4m, the total volume of the tree crown is 7 m³. There is one *P. persica atropurpurea* tree in the park, aged 20 years. The height of the tree is 3m. The diameter of the tree crown 4m, the volume of the tree crown is 6 m³. There are 2 *P. cerasus* trees in the park, aged between 10 and 15 years. The height of the trees is 2 to 2,5m. The diameter of the tree crowns is between 2 and 3m, the total volume of the tree crowns is 4 m³. The *Prunus* trees can be found all over the park, with the exception of the central parts where the shade of the old trees doesn't allow the growth of new individuals.

Alpinet Park is situated on the bank of the river Bega, in central town. It is not a great green space, but it has a nice design, and contains many species of trees and shrubs. There are 5 *P. cerasifera* individuals in the

park aged between 10 and 15 years. The height of the trees is 2 to 3m. The diameter of the tree crowns is between 2 and 3m, the total volume of the tree crowns is 20 m³.

There are 19 *P. pissardi* individuals in the park aged between 10 and 15 years. The height of the trees is 2 to 3m. The diameter of the tree crowns is between 2 and 5m, the total volume of the tree crowns is 40 m³.

There is one *P. domestica* tree in the park, aged 20 years. The height of the trees is 6m. The diameter of the tree crown is 4m, the volume of the tree crown is 10 m³. The trees are situated near the river bank, and in the central part of the park.

Central Park, (Parcul central) is probably the oldest park in Timisoara, with a history of 150 years. It is situated in the center of the town near the orthodox cathedral. Its central part is geometrical and monumental, while the rest is more natural. There are statues, flower beds, fountains and pergolas in the park. There are 34 *P. cerasifera* individuals in the park aged between 20 and 30 years. The height of the trees is 5 to 10m. The diameter of the tree crowns is between 2 and 5m, the total volume of the tree crowns is 160 m³.

There are 22 *P. pissardi* trees in the park aged between 20 and 25 years. The height of the trees is 6 to 10m. The diameter of the tree crowns is between 4 and 7m, the total volume of the tree crowns is 110 m³.

There are 3 *P. avium* trees in the park aged between 20 and 30 years. The height of the trees is 7 to 12m. The diameter of the tree crowns is between 5 and 7m, the total volume of the tree crowns is 40 m³.

There is one *P. padus* tree in the park, aged 20 years. The height of the tree is 8m. The diameter of the tree crown is 5m, the total volume of the tree crown is 8 m³. The trees are situated mainly near Boulevard N. Titulescu, which is bordering the park, and in the central parts.

Poporului park is a large old park situated in Fabric quarter in Timisoara. The park is near the river Bega, and is bordered by boulevards. One century old, the park has been remodeled several times. In the park can be found fountains, little hills with stones, flowers, nice benches, pergolas. There are nice old trees in this green space, which are at least one hundred years old.

The only *Prunus* trees that can be found in the park are the 16 *Prunus pissardi*. The trees were planted 20 years ago, they are 8-10 m high, the diameter of the crowns is 3-5m. The total volume of the tree crowns is 60 m³. The trees are planted in different parts of the park, mainly in the center, near alleys.

Prunus trees can be found all over the town, on the side of lanes, in parks, in alleys. It is between the most common species in Timisoara.

Prunus trees have ecological and esthetic value. The trees are planted generally because they have nice flowers in spring, nice foliage and are not expensive.

They can be seen in poorer areas as well as in central parts of the town.

Results and Discussions

Prunus is an important species, present in many green spaces of Timisoara. The trees contribute a lot in spring to the outlook of certain urban areas. There are trees which are older and have a great visual and ecological value, while others are younger. The species is present in all important parks of Timisoara, and can be found in many streets also. Their numbers and importance are variable. Usually there are a couple of *Prunus* shrubs in a green space, but in study shows that in many parks *Prunus* trees are present in great numbers. The individuals are sometimes concentrated near building. The study shows that they are present in nearly all green spaces, in smaller or greater numbers, disposed in little groups or isolated. There are many boulevards in Timisoara with nice lines of *Prunus pissardii* trees. These have become in time symbols of certain boulevards with their nice flowers in spring and red foliage. In the winter of the year 1956, nearly all *Prunus cerasifera var. pissardii* trees were frozen in the town.

While the small size of these trees can be an advantage in certain situations, the relatively short life of *Prunus* trees (30years generally) has as result the fact that the trees must be more often replanted than other species.

Prunus cerasifera and *Prunus pissardi* can be found in great number in many parks and streets of the town, while the other studied *Prunus* species are present in much smaller numbers.

Conclusions

1. *Prunus* trees are present in nearly all the parks of Timisoara, in greater or smaller numbers, as well as in many streets. They are considered valuable because of their nice flowers in spring and their foliage.

2. The trees contribute a lot to the diversity and beauty of certain green spaces, especially when they flower in mid spring. Most important *Prunus* species present in the streets and park of the town is *Prunus cerasifera var. pissardii*, considered a very nice tree because of its red leaves and foliage.

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Fig. 1 Prunus cerasus branch



Fig. 2 Prunus cerasus tree



Fig. 3 Prunus cerasus flower



Fig. 4 *Prunus laurocerasus*



Fig. 5 *Prunus* tree trunk



Fig. 6 *Prunus avium* flowers



Fig. 7. *Prunus cerasifera* leaves



Fig. 8 *Prunus cerasifera*



Fig. 9 *Prunus cerasifera pissardii* leaves and flowers