

Thuja trees in the parks of Timișoara

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Abstract Thuja sp. is a conifer species that can be found today very often in the streets and green spaces of Timișoara. In the parks of the town the species is more and more present. Thuja are not used for rows on the sides of the streets, but have become a common presence isolated or in small groups in gardens, and urban green spaces. Thuja are appreciated because they are evergreen, and because they can be shaped in different forms easily.

Key words

Park, trees, Thuja, Timișoara

Thuja L. (Cupressaceae)

Arbor-vitae

This small genus contains 6 evergreen conifers that come from high-rainfall, cool-temperate regions of northern Asia and North America. All are valuable timber trees, and several are widely cultivated on a commercial basis. They feature erect, straight trunks covered in deeply fissured, fibrous bark and are columnar to pyramidal. The aromatic foliage consists of sprays of scale-like leaves, often flattened. The egg-shaped cones are covered with overlapping scales and are green, maturing to brown; they are notably small for such large trees, mostly under 1/2 in 12 mm long. Dwarf cultivars, some no more than 15 in 38cm high, make excellent rockery or container specimens; most are juvenile forms.

Cultivation: These plants tolerate cold and are not fussy about soil as long as it is well drained; most species prefer full sun and dislike dry conditions. Propagation is from seed or cuttings in winter.

Thuja occidentalis L.

American Arbor-Vitae, White Cedar fig. 1

Growing to 15m in height with a pyramidal crown, this species has attractive, reddish brown, peeling bark. Its dense foliage is composed of yellow-green glandular leaves with bluish undersides held on flat, spreading branchlets. The leaves turn bronze in autumn; it has tiny, yellow-green cones which ripen to brown. This species has given rise to more than 140 cultivars ranging from dwarf shrubs to large trees. 'Ericoides' is a small dense bush 45 cm tall and has soft, loose, bronze juvenile foliage which becomes brown green as it matures. 'Lutea' grows to 2,4m in 10 years; its leaves become rich golden bronze in winter. 'Lutea Nana' is a small conical bush, with golden yellow foliage in winter. 'Micky' is a bun-shaped, green-foliaged cultivar. Slow-growing 'Rheingold' forms a spreading, semi-prostrate form, is 75 cm high and 1,5m wide. Has leaves that turn rich golden brown in winter, 'Smaragd', with a compact pyramidal habit, has bright green

foliage all year round and forms a dense hedge 1.8m high.

Thuja plicata Don. (*Thuja gigantea* Nutt.)

Western red cedar

This fast -growing conifer reaches about 24m in cultivation, but is much taller in its natural habitat (up to 60m). It has long been harvested for its durable and versatile softwood timber. Of conical habit, it becomes columnar in maturity, with branches sweeping the ground. When the rich, coppery green foliage is crushed, it exudes a sweet, tangy aroma. The dwarf cultivar 'Rogersii' forms a round bun shape 45 cm across. Compact 'Zebra', growing to 6m high and 1,5m wide, has glossy bright green foliage striped with yellow. 'Aurea' has rich, old gold foliage. 'Stoneham Gold' is slow growing, but eventually makes a large bush with dense foliage and a narrowly conical form; the foliage is bright gold topped with copper bronze. Similar to 'Stoneham Gold' and also slow growing, 'Collyer's Gold' has brighter yellow foliage. 'Atrovirens' is a compact shrub ideal for hedging.

Thuja orientalis L. (*Biota orientalis* (L.) Endl.)

Oriental cedar fig 2,3,4

This freestanding arbor combines the beauty and durability of natural cedar with an Oriental-inspired design. Set it up on your patio or deck, or in a quiet corner of your backyard—it adds just the right finishing touch to turn your outdoor living space into a showplace geared for relaxation and quiet contemplation. The arbor has a long history as a focal point in gardens and other outdoor areas throughout the world. An exotic species, with origins in China, up to 10m high, often a shrub, much resembling *Thuja occidentalis*, with thinner branches, but having generally the same colour on both sides of the leaves, disposed in characteristic vertical plans.

The cones, are 10-25mm, fleshy, green-blue, made of 6-8 thick scales, with bent had. It can endure pollution and draught.

Justitiei 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 few monuments too. There are 2 *Thuja orientalis* trees in the park, one *Thuja occidentalis*, and one *Thuja occidentalis aureo-variegata*. The trees are 10 to 20 year old, 8 m high, the diameter of the tree crowns is 1m, the total volume of the crowns is 20 m³. The trees are situated in the central part of the park.

Copiilor (Childrens) Park is situated 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 *Thuja occidentalis* trees in the park, aged between 30 and 50 years. The height of the *Thuja* trees is between 8 and 11m. The diameter of the crowns is 1 to 3m. The total volume of the tree crowns is 60 m³.

There are 9 *Thuja occidentalis aureo-variegata* trees in the park, aged between 20 and 30 years. The height of the *Thuja* trees is between 5 and 9m. The diameter of the crowns is 1 to 3m. The total volume of the tree crowns is 12 m³.

There are 19 *Thuja occidentalis fastigata* trees in the park, aged between 12 and 20 years. The height of the *Thuja* trees is between 2 and 5m. The diameter of the crowns is 1 to 2m. The total volume of the tree crowns is 16 m³.

There are 3 *Thuja orientalis* trees in the park, aged between 10 and 15 years. The height of the *Thuja* trees is between 2 and 3m. The diameter of the crowns is 1 to 2m. The total volume of the tree crowns is 8 m³.

The trees are located in different parts of the green space.

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 35 *Thuja orientalis* trees in the park, aged between 15 and 25 years. The height of the *Thuja* trees is between 2 and 4m. The diameter of the crowns is 2 to 3m. The total volume of the tree crowns is 40 m³. There are 23 *Thuja occidentalis fastigata* trees in the park, aged between 10 and 12 years. The height of the *Thuja* trees is between 1 and 3m. The diameter of the crowns is 1 to 1,5m. The total volume of the tree crowns is 30 m³.

There are 2 *Thuja plicata* trees in the park, aged between 10 and 15 years. The height of the *Thuja* trees is between 1 and 3m. The diameter of the crowns is 1 to 2m. The total volume of the tree crowns is 4 m³.

The trees are located in different parts of the green space.

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. 14 *Thuja occidentalis* trees exist in the park. There are

also 15 *Thuja occidentalis fastigiata* trees in the park, one *Thuja occidentalis aureo-variegata*, and 6 *Thuja orientalis*. The trees are aged between 12 and 15 years old. The height of the trees is 1 to 4m. The diameter of the tree crowns is between 0,5 and 1,5m. The total volume of the tree crowns is 120 m³.

The trees are situated mainly near Bul.16 Decembrie, and Splaiul Titulescu street, which are bordering the park.

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.

There are 2 *Thuja occidentalis* trees in the park, 8 *Thuja occidentalis aureo-variegata*, 2 *Thuja occidentalis fastigiata* trees. The trees were planted 15 to 20 years ago, they are 2-8 m high, the diameter of the crowns is 2-6m. 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.

Thuja trees can be found in most park of the town, in smaller or greater numbers. They are between the common species in Timisoara, though they have been planted in greater numbers in the last 20 years. *Thuja* trees represent ecological and esthetic value. The trees have a nice shape and colour, and contribute a lot to the outlook of the areas where they are planted, though some lose their nice shape in time.

Results and Discussions

Thuja is a much used species, present in many green spaces of Timisoara. The trees contribute a lot to the outlook of certain urban areas and to the diversity of the vegetation. The trees are generally young, under 20 years. The species is present in many important parks of Timisoara, more and more in the green spaces of the streets too. Their numbers and importance are variable. The individuals are sometimes concentrated near building, or on private domain. *Thuja* trees are considered today being nice, and their presence is appreciated everywhere. The trees have esthetic value especially when they are young. Very few other trees are used as much in green spaces and gardens as *Thuja*. Different cultivars are present today in the gardens and parks of Timisoara. They have different colour, size and leaves. Some cultivars are rare and more expensive, while others are cheaper, and can be found in many places. The study shows that *Thuja occidentalis*, and related cultivars are frequent in the parks, while *Thuja orientalis* is also present, though in smaller numbers. In the last 20 years the town-hall invested much in the outlook of the green spaces of Timisoara, and created parts in parks that got special attention. In these parts of the parks many young *Thuja* were planted, together with different shrubs and flowers.

Thuja trees grow very slowly, in ten years hardly 2m, in 20 years 4m, and in 30 years depending on species 5-8m.

Conclusions

1. *Thuja* trees are present in more and more parks of Timisoara, rarely in streets. The species is present in central parks of the town where many plants have been planted during the last years.

2. The trees are young generally. They have ecologic and esthetic value.

References

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Fig. 1 *Thuja occidentalis*



Fig. 2 *Thuja orientalis* Pyramidalis Aurea



Fig. 3 *Thuja orientalis* rows



Fig. 4 *Thuja orientalis* branches