

 **GARDEN TOUR** 

*Welcome to the Garden Tour of the Villa Porta Secular Park*

  
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**THE VILLA**

The Villa stands in a strategic position because it is sheltered from the winds in the **Gulf of Colmegna**, a hamlet of the municipality of Luino, and open to the view of **Lake Maggiore** for such a breadth that it embraces, in a single glance, the northern branch, in the direction of Locarno, and the central basin, as far as Stresa and the famous Borromean Gulf.



The history of Villa Porta began back in 1820 when, originally conceived as a hunting lodge in the late **18th century**, the mansion was converted into an inn by Leopoldo Casnedi. Over the years, the residence was embellished **with rare plants collected by Engineer Porta**, the later owner and expert botanist, during his travels.

Numerous illustrious personalities fell in love with this place and contributed to enhancing its beauty with interventions that shaped the **10,000 square metre** park, the charming Art Nouveau greenhouse, the picturesque little harbour and the majestic 'Villa Porta' mosaic that still dominates the rock face.

The favourable exposure would have allowed Leopoldo to transplant the first '**exotic**' **botanical** essences, imported from Liguria, into the flowerbeds surrounding the 'small villa for hotel use': loquats, the pepper bush and, above all, mimosa, a record in the introduction

of this species on the banks of the Verbano that popular legend attributes precisely to Casnedi.

Proud of this heritage and dedicated to supporting green issues, **Mrs. Lara** has been taking care for years to preserve and implement the Park's botanical collection.

## 1. *Cupressus sempervirens*, L.

### Origin

It is a conifer belonging to the *Cupressus* genus. Its origins would seem to be in **Iran** and the **eastern area of the Mediterranean Sea**; it would have been imported into the western Mediterranean by the Phoenicians and Etruscans for ornamental reasons since its pyramid shape of some varieties is very characteristic. It is a widespread plant in Italy, but is most probably not indigenous despite being one of the most characteristic species of the peninsula today. It is a relict species, representative of European flora before the Ice Ages.

### Description

The Mediterranean cypress is an **evergreen** tree reaching up to 25 m, but in older specimens it can also reach over 50 m. Its **foliage** is very characteristic and for ornamental reasons selections have been made to accentuate this prerogative, so that today we find specimens with an oval foliage, others with a strongly pyramidal shape and foliage that descends to the ground. This aspect has also allowed the tree to be used as a windbreak.

It has a greyish-brown **bark** with long fissures and it's very hard wood is used for furniture construction as its strongly aromatic odour protects it from moths, fungi and parasites, while it was once also used for shipbuilding due to its great resistance to moisture.

The **leaves**, which are characteristic of all types of cypress, are dark green, very small, about 1 mm long, haired and appressed to the twig, giving a shape known as squamiform.

The yellow **flowers** arranged at the apex of the twigs are indistinctly male and female throughout the plant.

The strobili are small light green spheres when young, called galbulae, which are scaly and, after maturing for two years, change colour to brown, lignify and open along the slits in the scales to drop winged seeds (achenes).

## 2. *Styphnolobium japonicum* (L.)

### Origin

The **Japanese Sophora** or **Japanese Acacia** (*Styphnolobium japonicum* (L.) Schott) is a tree of the Fabaceae (or Leguminosae) family, native to **Central Asian regions**, which was introduced to Europe in the 18th century. It has been used as an ornamental plant for its fine foliage, beautiful flowering and elegant habit.

### Description

**Flowering** takes place in the summer months. The creamy white or violet-white flowers, depending on the variety, measure 1-2 cm in length; they are grouped together and are slightly fragrant.

The **leaves** are deciduous, consisting of 7 or 13 leaflets with a lanceolate blade and pointed apex. On the upper side they are bright dark green, on the lower side they are slightly duller; in autumn they turn a characteristic golden colour on both sides.

The **branches** are green and slender, elastic, strong and very branched, while the bark is rough and cracked, light brown in colour; the wood is very hard and resistant.

The legume-shaped **fruits** (lomentum) contain 3 to 7 seeds interspaced by stalks.

The plant can reach a **height of 10-15 m** and is suitable for all types of soil. It fears frost and waterlogging, so it requires a sunny position. It flowers in summer, when there are not many plants to forage on, and is a very important plant for bees, which collect abundant nectar from it.

## 3. *Ficus pumila* L.

### Origin

*Ficus pumila* L., 1753, also known as the **climbing fig**, is a small **evergreen** climbing shrub of the Moraceae family, native to East Asia (China, Japan, Vietnam). It has naturalised in parts of the south-eastern states of the USA.

The specific epithet *pumila* comes from Latin and means dwarf, indicating the small size of the species.

### Description

It has a prostrate, assurgent habit, it uses the adventitious **roots** that branch off the stems to attach themselves to the support (usually cliffs or other trees), it has heart-shaped or lanceolate, shiny **leaves** that are also very robust (like leather). Typical of moraceae is to

develop different sized leaves at different stages of vegetation; the fruit-bearing **branches** are also different from those of normal vegetation, assuming an erect habit to display the fruit.

The condition of being a **climber** is common to many tropical fig species, both from Asia and America. The definition of 'climbing fig' in use in Italy is justified by the fact that this species is the only climber that, due to its relative resistance to cold, is sufficiently widespread in Italian gardens, where the more temperate climate allows it. Under suitable conditions it can grow **up to 9-12 m**.

The plant is pollinated by the species-specific insect *Wiebesia pumilae* (syn. *Blastophaga pumilae*) the plant is only and exclusively pollinated by this insect, which lives in symbiosis with the plant, in countries where this plant is wild.

In nature, the plant hosts a **butterfly**, *Marpesia petreus*, whose larvae feed on its leaves.

### Cultivation

The plant is moderately **resistant to the cold**, even at temperatures around zero centigrade, but is not resistant to frost; in temperate zones and in sites protected from the cold (such as on cliffs or walls), it tends to cover and carpet, forming a compact, even extensive layer. In such conditions, the plant can become invasive and harmful, as it can penalise other vegetation, and the adventitious roots can damage inconsistent walls.

Multiplication is very easy and is done by cuttings or by layering. Regular pruning is necessary to keep the vegetation compact and bounded.

The **fruits** (syconia or figs) of the plant, although not toxic, are not edible (the fruit, although fertilised, does not have a sweet-tasting pulp, but is filled with a compact mass of seeds).

In the variety *Ficus pumila* var. *awkeotsang*, the numerous small **seeds** contain a substance which, when ground and mixed with water, takes the form of a gelatinous mass. This substance, flavoured (typically with citrus fruits) and sweetened, is used in South East Asia to prepare edible sweets and jellies.

### Adversities

Unlike other *Ficus* species, *F. pumilia* is very resistant to pests and diseases, but is susceptible to attack by mealybugs, aphids, mites and thrips under less than optimal conditions.



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## THE LITTLE HARBOUR

Anticipated by the public marina, the Villa originally had no private dock: no indication appears on the cadastral plan of the time. Later, a **large dock** was built for the shelter of boats.

Above the **little harbour**, the **camellia** deserves a special mention: the Villa Porta Park offers a sampling of camellia blooms, all planted, one supposes, during the periods when the Cicogna Mozzoni family and later engineer Enrico Porta owned the complex. Continuing along the path, the **romantic rose garden** makes a fine show.



### 1. *Camellia* L.

*Camellia* L., 1753 is a genus of plants in the Theaceae family, native to tropical parts of Asia.

#### Etymology

The genus name, chosen by Linnaeus, comes from the Latinised name of the Jesuit missionary Georg Joseph Kamel (1661-1706), a botanist, who first imported the plant from Japan to Europe.

## Description

The genus *Camellia* includes **shrub- or tree-like plants**, evergreen, **up to 15 metres** tall in the wild. The leaves are simple alternate, more or less dark green depending on the species, glossy and leathery, sometimes fleshy and provided with stipules and aromatic glands, with smooth or crenate margins, elliptical, lanceolate or oblong-lanceolate. The flowers are simple or double, white, pinkish or red, unscented or very fragrant, and can reach **up to 20 cm in diameter**. They are plants suitable for temperate and humid climates.

## Distribution and habitat

In tropical Asian areas, *C. sinensis* (L.) O. Kuntze (= *C. thea*) is extensively cultivated, the young apical leaves of which **are harvested and used for tea**; all the innumerable variants of the beverage (black, green, yellow, oolong, flavoured, etc.) come from the same plant and depend only on the different processing of the leaves after harvest. The plant was also introduced to North America (South Carolina) by the French botanist André Michaux around 1890.

The most widely cultivated species as an ornamental plant in gardens, parks and boulevards is *C. japonica* L., originally from Korea and Japan. The shrub reaches a height of several metres and has persistent, oval, glossy dark green leaves, late winter and spring flowering with flowers in various shades from white to dark red, and large, open, flattened rose-shaped corollas that fall to the ground in a single block and do not bloom petal by petal when they wither.

**In Italy**, the cultivation of *C. japonica* for flowering is widespread in the area of the pre-alpine lakes, where the Villa Taranto collection on Lake Maggiore is famous, in upper Piedmont, where there are numerous groves used for the collection of budding flowers, and in central-southern and insular Italy, particularly in Tuscany in the area around Sant'Andrea di Compito, a hamlet of the municipality of Capannori (LU), whose naturally acid soil has favoured cultivation since the 18th century and where the 'Antiche camelie della Lucchesia' event is held every spring.

*C. sinensis* da tè, on the other hand, was only consistently introduced in the 2020s with a first experimental plantation in Premosello-Chiovenda (VB), which, with around 24,000 plants, is the second largest in Europe after Chá Gorreana on the island of São Miguel in the Azores.





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## THE PRIVATE BEACH

Originally, the area appeared as a bare rocky outcrop with a dense woodland going uphill. Between 1860 and 1890, massive work was carried out to build the **walls**, which today support the **Relais' private beach** and **Brasserie**.

From this point, three wonderful specimens of plants dating from the time of planting can be seen:

- *Magnolia soulangeana*
- *Magnolia grandiflora*
- *Cupressus*

### 1. *Agave americana* L.

#### Origin

The American Agave is a succulent plant, belonging to the Asparagaceae family, which **originated in America** and later spread throughout much of the Mediterranean and temperate climate zones.

#### Description

Characterised by broad, **fleshy, lance-shaped leaves** that are arranged to form large rosettes; the margins and tips of the leaves have brownish-grey spines that contrast sharply with the green-grey colour of the entire leaf page. It is a very popular plant among cacti and succulents due to its **easy cultivation** and tolerance of low temperatures, making it an excellent outdoor variety ideal for completing and setting up gardens, terraces, patios etc. Its growth is moderately fast and its maintenance only requires cleaning of old and dry leaves, which can be done once a year.

### 2. *Magnolia grandiflora* L.

#### Origin

The **evergreen magnolia** (*Magnolia grandiflora* L., 1753), also simply called magnolia, is a plant belonging to the Magnoliaceae family, native to the southeastern United States.

## Description

The magnolia grandiflora is a **slow-growing tree, up to 25-30 metres tall** and very **long-lived**, being able to grow to several centuries, with a pyramidal crown and dense foliage from base to apex. It is an evergreen, deciduous plant.

The **bark** is dark greyish-brown, brownish in young branches; as its ages, the bark splits into small blades and there may be moss. The up to 20-30 cm long, lance-shaped, elliptical **leaves** are rigid and leathery, the upper part shiny and dark green, the lower part rust-coloured and slightly hairy. The leaves last for about 2 years, after which they fall and renew.

The conical-ovoid pedunculate infructescences are initially green and closed, then when ripe they turn brownish and split, revealing the achenes. The fruit is an achene and grows in ovoid clusters 8-12 cm long. The seed is deep red in colour and emerges from the achene when ripe.

Magnolia grandiflora has solitary, hermaphrodite **flowers** with large, white, highly scented petals. Pollination is entomogamous and flowering occurs in May. These flowers are edible.

## Distribution and habitat

The species is native to the south-eastern United States (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas).

In Europe, this plant is very common in gardens and parks.

## Uses

It is mainly used as an ornamental plant. The compact, hard wood is sometimes used in carpentry because of its ease of processing and durability.

## Curiosities

Its bark has **tonic and febrifuge properties**. The large white flowers have **edible petals** and can be fried or breaded.





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## THE FOUNTAIN

The **waterfall** was created thanks to a derivation from the aqueduct installed by the Cicogna family and upgraded by engineer Enrico Porta after 1912. The existing **basin** was enlarged and connected to a large waterfall, where the **gushes** seemed to gush upstream and descend towards the lake, as if between rocks and caverns.

This geological setting was skilfully recreated with '**artificial stone**', a mixture of cement, black and white stone and grit simulating a tuffaceous surface. In order to accentuate the naturalistic effect, pinnacles, pyramids and a few pockets from which essences and flowers typical of wetlands were dropped were introduced in a seemingly random order.

The fountain was dotted with statuary of a classical type, of which **Arion of Metimna riding a dolphin** can be seen today. Legend has it that Arion of Metimna, a mythological figure from ancient Greece, threw himself into the sea and was saved by a dolphin, which loaded him onto its back and carried him to safety at the sanctuary of Poseidon at Capo Tenaro.

Some of the seats configure a path that could be practised in the fountain's basin, jumping from one support to another or resting almost submerged in the water.

The entire waterfall is made of **faux-rock** with **black and white stones** set into it; to better simulate the damp cavern of a natural spring, the walls offer short shelves and pockets within which shrubs typical of damp places are housed, drooping downwards.

### 1. *Magnolia × soulangeana* Soul. -Bod.

*Magnolia × soulangeana* Soul. -Bod., 1826 is an interspecific **hybrid** obtained by crossing *Magnolia denudata* with *Magnolia liliiflora*.

It is a **deciduous** tree with large, **early flowers** ranging in colour from white, pink to purple. It is one of the most widely used species in horticulture, widely cultivated in Great Britain, especially in southern England; and in the United States, particularly on the east and west coasts.

#### Origin

The hybrid was originally created by the Frenchman Étienne Soulange-Bodin, a retired officer of the Napoleonic cavalry, at his chateau in Fromont, near Paris. From **France**, the hybrid quickly entered cultivation in **England** and other parts of **Europe**, and also in **North America**. Since then, plant hybridisers in many countries have continued to improve this species. More than a hundred cultivated varieties (cultivars) are known and cultivated today.

## Description

This plant grows producing many basal branches to form a broad bush or small tree. On the sturdy **branches** it bears alternate, simple, shiny, light green, oval-shaped **leaves**.

The **flowers** bloom in large numbers on the still bare tree in early spring. The leaves begin to grow soon afterwards and remain there until autumn. The flowers of the *Magnolia x soulangeana* are large, with an average diameter of 10-20 cm and vary in colour from white, pink to reddish brown. An American variety, 'Grace McDade' from Alabama, is considered to be the variety with the largest flowers, with 35 cm in diameter, coloured pink-violet and white. *Magnolia x soulangeana* 'Jurmag1', has the darkest and most compact flowers of all the other varieties. The precise time of flowering and its duration varies from variety to variety, as does the shape of the flower. Some varieties have globular flowers, others have cup-shaped or more flattened flowers.

## Distribution and habitat

The plant is widely cultivated in many European countries, especially in England, and on the coastal strip of North America.

## Cultivation

This Magnolia is known for its **ease of cultivation** and its relative tolerance to wind and alkaline soils (two vulnerabilities of many other Magnolia species).

## Uses

It is used as an ornamental plant in many gardens and parks, grown as a bush or solitary tree.



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## THE PANORAMIC PATH

In the lower part of the park is **the panoramic path**, closer to the lake and more exposed to the sun. The path leads towards the promontory, jutting out into the water, where the **Jacuzzi whirlpool** is located, under a scenic **white iron gazebo** from the late 19th century.



### 1. *Acer japonicum* Thunb.

#### Origin

*Acer japonicum* Thunb., 1794 is a medium-sized deciduous tree of the Sapindaceae family native to **Japan** and found in the temperate regions of **Europe** and **North America** as an ornamental tree.

#### Description

Small tree or shrub that can reach a **height of 5-6 m** (in the wild even 10 m), with irregular arboreal or shrubby habit, with light, flat, umbrella-like spreading or globose crown; slender, sinuous stem, grey-brown depending on variety.

**Leaves** are opposite, palmate-lobed with 5-7 lanceolate-acuminate lobes, margin finely serrated, deeply incised, approx. 5-10 cm long and wide; shape and reddish-green colouring varies slightly depending on variety.

**Flowers** are hermaphrodite or unisexual male, very small, clustered in erect or pendulous corymbs; they have a yellow-red calyx consisting of 5 petals, 5 sepals and yellow stamens. Disamaras (double samaras), each 1.5-2 cm in size, with short wings diverging by about 160°, long stalked and containing a 5-8 mm rounded seed.

## 2. *Quercus pubescens* Willd.

The downy oak (*Quercus pubescens* Willd., 1805) is the most widespread oak species in Italy, so much so that in many places it is simply called oak. It belongs to the Fagaceae family and is a slow-growing tree.

### Description

Resistant to aridity, it is also able to **adapt to relatively cold climates**. It is easily recognisable in winter as it keeps its dry leaves attached to the branches, unlike other oak species. The main diagnostic character to identify the species is to observe the leaves or buds: they are covered with a fine down (pubescence) that can be easily appreciated by touch. The rusticity and plasticity of this plant, thanks mainly to the enormous vitality of the stump, have enabled the downy oak to resist man's destructive interventions over the centuries.

The **downy oak** is a tree that rarely reaches 20-25 m in height, with a stocky appearance and a broad, sparse, irregular crown. It has a short stem, branched at short height into large branches, and often twisted.

The **buds** are grey, 8-12 mm long, oval-pointed and very hairy (pubescent). These buds are very similar to those of the horse chestnut.

The **bark** is dark grey to blackish-black, fissured when young into small, hard, square-shaped flakes which are raised and wrinkled. At maturity it is blackish, finer.

The **leaves** are late deciduous, alternate, very variable in shape and size; usually ovate-elongate, they have a cuneate lamina with a lobed margin. The lower leaf page is densely pubescent (hairy), with a leaf petiole of about 8-12 mm. In autumn they take on an even very intense yellow colouring depending on the growing conditions.

The **fruit** is an ovoid achene, with dark streaks in the fresh state, borne by a very thick and hairy peduncle. The dome is hemispherical and covers the acorn for 1/3 - 1/2 of its length.

### Distribution and habitat

The downy oak is distributed throughout the **Mediterranean** basin; in Italy it is found except in the most inland and highest areas. It is mainly found in the sunniest locations, on south-facing slopes at an altitude between sea level and 1000 m above sea level.

It has no soil preferences, being able to vegetate on soils of different types, eschewing only purely clayey ones, although it often dominates over calcareous formations. It forms pure or mixed, tall-trunked or coppice woods. In the Umbria-Marches Apennines and Tuscany, mixed oak forests are the source of the prized white truffle (*Tuber magnatum*).

### Adversities

It can be severely attacked by the larvae of some defoliating lepidoptera, such as *Lymantria dispar* and the oak processionary moth. Young shoots can be damaged by *Lachnaia italica*.

### Uses

Wood is valued and used as **firewood**; it belongs to the category of hardwoods, i.e. those woods that have excellent calorific value and slow combustion. The wood, although similar to oak, has less straight fibres, so it is more difficult to work, and also tends to board. The beams obtained from it are used in construction, shipbuilding and once railway sleepers.

**Acorns** are sweet and were used not only to feed pigs but also, in times of famine, to make a kind of acorn bread or piadina.

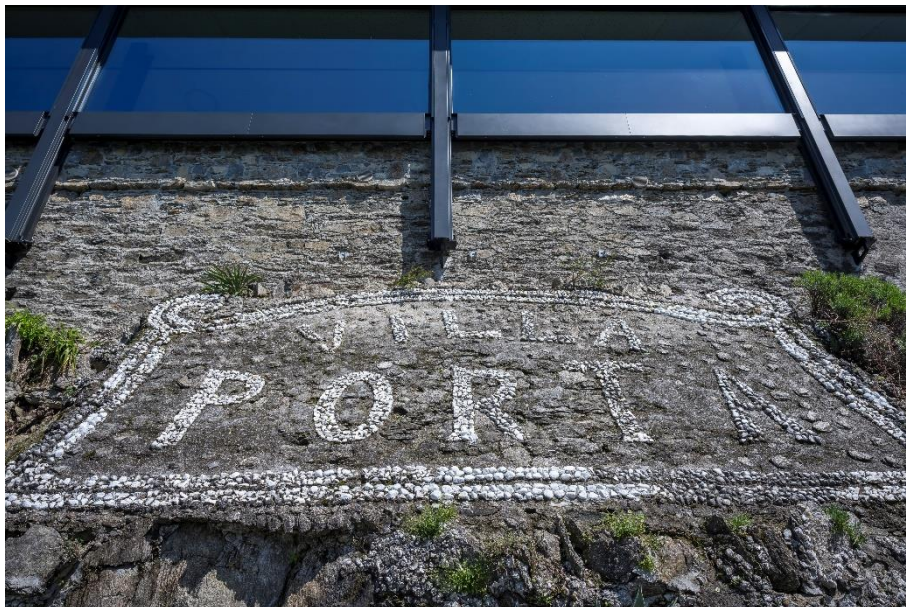




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## THE FANTASTIC CAVE

On the path leading to the grotto is the **Villa Porta stone inscription**, dating from the time when the first hotel was built, and made of white quartz and black lava stones. All the **flower boxes** surrounding the inscription and the **water features** made from **synthetic rocks** in the form of stalactites, echoing the movements expressed by the famous Catalan architect **Antonio Gaudi**, serve as decoration.



Following the path along the edge of the lake, one arrives at the picturesque Grotta Fantastica. The creation of grottos was typical of these late 19th-century gardens in the landscape-romantic style. The artificial or **Fantastic Cave**, simply called grotto or spelunca, is one of the typical settings of mannerist architecture.

It is an underground cavity or one dug into the side of a mountain and used for different uses and purposes, in this case as a decorative element in the park and garden; the taste for fantastic grottos was typical of the **late 16th century** and one of the most famous is the **Grotta del Buontalenti**.

In this case we do not find any sign or symbol that leads us back to Mannerism because it was built in a different historical period, it was certainly created as an artefact to create astonishment, interest, a place of intimacy.





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## THE ANTIQUE GREENHOUSE

In the parks of the time, especially at our latitudes, it is customary to find greenhouses. These are normally buildings with metal frames and fully glazed.

Located in one of the sunniest parts of the park, the **Antique Greenhouse** houses a **sauna** and **relaxation area** with chaise-longue, where one can spend time immersed in the peace of nature.



Originally it was used to **shelter lemon trees** during the winter period: greenhouses are in fact excellent allies against frost, making it possible to create heated rooms without sacrificing natural light. In the botanical gardens today one can see different greenhouses, each with its own specific climate - dry, humid, warm, cool - required by the plants.

It is precisely the lemon trees that inspired the creation of the spectacular **Ballroom Limonaia**, an ideal setting for occasions with an elegant touch.



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## THE LIMONAIA

Inaugurated in 2023, the **Ballroom Limonaia**, with its open-air **Skyline**, offers an unparalleled view of Lake Maggiore. The name 'limonaia' is inspired by the structures that were built on the terraces typical of the area, to protect the citrus fruits from the harsh winters.



### 1. *Citrus × limon* (L.) Osbeck,

The **lemon** (*Citrus × limon* (L.) Osbeck, 1765) is a fruit tree belonging to the Rutaceae family. The common name lemon can refer to both the plant and its fruit.

According to genetic studies, the lemon is a **hybrid** and derives from a cross between the bitter orange and the citron.

#### Origin

Although the origins of the lemon are uncertain, it is thought that the first places where it grew were **China**, where it was cultivated even before the Song dynasty (960-1279 A.D.), the Indian **region of Assam and northern Burma**.

According to some scholars, the **ancient Romans** were already familiar with lemons. The hypothesis is supported by the depictions of such fruits in some mosaics in Carthage and frescoes in Pompeii; however, according to other scholars, it is possible that the authors of those works had imported citrus fruits or had seen them in their countries of origin. There is no paleobotanical or literary evidence to support this hypothesis.

Around 700 AD, the lemon spread to Persia, Iraq and Egypt. From the Persian word ليمو, pronounced *līmū* and referring generically to citrus fruits, comes the term 'lemon'.

The first literary descriptions of the lemon occur in Arabic writings from the 10th and 12th centuries, by Qustus al-Rumi and Ibn Jami'. Lemon trees were first used by the Arabs as ornamental plants.

The first lemon cultivations in **Europe** were in Genoa in the mid-15th century. Later, lemons were introduced to America by Christopher Columbus, who brought some seeds to Hispaniola.

In 1747, the Scottish physician James Lind recommended the use of lemon juice as a cure for scurvy.

In the 19th century, the lemon began to be cultivated intensively in **Florida and California**.

### Description

Lemon is a tree that reaches **from 3 to 6 meters in height**. The **shoots** and **petals** are white and violet.

The **fruit** is yellow on the outside and almost colourless on the inside, of spherical shape up to oval, often with a protuberance at the apex and pointed at the other end. The skin can be very rough to smooth, more or less lined inside with a spongy white mass called albedo. Usually lemons are grown for the production of fruits, but the plant can be grown in pots for ornamental purposes. For the cultivation in pots is recommended specific land for citrus and the annual repotting before the winter shelter in the greenhouse.

In a favorable climate, **the lemon blooms and bears fruit twice a year**. The flowering lasts at least two months, and the ripe fruit can wait another two months on the tree before being picked, which favors a systematic harvest. Flowering produces the best fruits, whose harvest lasts all winter, from November to April or May. The second flowering, sometimes forced in commercial plantations, takes place in August and September, the fruits can be harvested from May onwards, immediately after the winter ones. Under favorable conditions, **an adult tree can give from 600 to 800 fruits per year**. This fruit, when it reaches its complete maturation takes on an intense yellow color, the inside is dissected in parts called segments, composed, in turn, by many small membranes (drop-shaped) containing the juice; these drops are called Lemmy.

### Varieties

Lemons are grown all over the world in **countless varieties** that probably not even botanists can currently record. The differences between them are in fact mainly found in the external aspect, while remain practically unchanged both their food qualities and their relative economic importance. In fact, lemon is rarely consumed as fresh fruit, so minor changes in taste are not very important.

All varieties are suitable for industrial processing, with the exception perhaps of those few that due to early deterioration are consumed at the place of production. So the varieties of "red lemon" and "sweet lemon" are **almost unknown**, giving always agri fruits, but at the same time sweet enough to be eaten as fresh fruit. When these lemons come to maturity they deteriorate within two or three days, so logically they are consumed by the local population and remain unknown on a larger market.

There is often a distinction between **yellow and green lemons**, but this is a purely commercial distinction, as the two types grow on the same tree. The green lemon is the product of the summer flowering, which is often artificially induced with the absolute deprivation of irrigation of the plant in June and July. In this way you get fruits with a thin green skin and very juicy pulp. They can remain stored for a long time and tolerate well transports and temperature changes, so they are exported all over the world, while their "brothers" winter lemons, cover the needs of domestic markets.

This kind of forcing of the tree shortens its life, but it is a very economically advantageous practice, therefore generally adopted in all plantations.



## THE SHADY PATH

Protected by the plants of the highest area of the Park, the **shady path** develops between botanical rarities and suggestions hidden by the branches of trees.

### 1. *Styrax officinalis* L.

The **storax** (*Styrax officinalis* L., 1753) is a **dicotyledonous angiosperm** plant of the Styracaceae family. It is also called white iron or mella. It is the only European species of the genus that includes **over a hundred species** mainly with tropical distribution.

#### Description

It is a deciduous shrubby plant, but also reaches the appearance of a sapling; **it blooms in April-May**. The **flowers** are white, fragrant and sweet brought in raceme inflorescences. It carries whole ovate leaves, hairy for starry hairs on the lower page.

#### Distribution and habitat

The species diffused in **Italy**, in the Balkan Peninsula, in **Turkey** and in the **Middle East**.

In Italy it colonizes spots and holm oaks between 0 and 600 m s.l.m. It is found in abundant quantity to the north east of Rome and precisely in **the Regional Natural Park of the Lucretili Mountains**, in the **Natural Reserve of Monte Catillo** and near the Pozzo del Merro, located in the reserve managed by the province of **Gattaceca Forest**; other sporadic presences have also been detected in Campania. **The plant is protected and is the symbol of the aforementioned Monti Lucretili Park.**

#### Uses

The medicinal properties of the plant are almost unknown in Italy. Not to be confused with the storace resin, which is produced by the plant of *Liquidambar orientalis*.

The beekeeping section of the Institute of Agricultural Zoology in Rome has launched a study, promoted by the Province of Rome, for the production of honey.



## 2. *Rhaphiolepis bibas* (Lour.)

**Japan medlar** (*Rhaphiolepis bibas* (Lour.) Galasso & Banfi, 2020) is a plant belonging to the Rosaceae family.

It is cultivated for commercial purposes for its fruit, and also as ornamental. It should not be confused with the common or Germanic medlar, of the oldest cultivation in Europe, which is instead the fruit of another rosacea, the European medlar (*Crataegus germanica*), today rarely cultivated and commercialized.

### Origin

It is believed that the medlar of Japan is native to **China**, where the fruit takes the name of pipa or pipa guo, that is, fruit of the pipe, in reference to the traditional musical instrument, of which, in fact, it recalls the shape. In China there is a remarkable range of varieties, in all sizes, also with small fruit and with less commercial interest.

In **Japanese**, the fruit is called biwa and it is here that it has received the **greatest attention** already in the period before the contact with Europe, with the selection of different varieties that are usually fruit larger than the Chinese wild ones. The latter are usually more compact, while the Japanese are more watery pulp. The fruit began to spread in Europe at the beginning of 1800, the first specimen was planted in the Botanical Garden of Paris in 1784, and then, at the Kew Gardens in London in 1787, in the Mediterranean area was initially planted in the botanical garden of Palermo.

### Description

The medlar of Japan is a medium-sized tree, **up to 8-10 meters** high and equally wide, which is normally grown at more modest dimensions. The tree is **broad-leaved and evergreen**, the leaves are very large (length up to 25 cm, width up to 10 cm), of a very robust consistency, similar to cardboard, with a dorsal surface of a deep green colour, shiny, whilst pale green, whitish and strongly hairy. The hairiness concerns all the young and non-lignified parts of the plant.

The **fruits** of the Japanese medlar are pomes (therefore botanically they are considered false fruits) of pale yellowish, yellow or orange colour, and are immediately edible. They contain from one to four large seeds which are by weight a considerable part of the fruit. The ripening takes place in May-June, while the flowering occurs in December-January.



## Cultivation

The **flowering** takes place in winter, therefore the production of the fruits is mainly in southern Italy and along the Tyrrhenian coast up to **Liguria, Turkey, Cyprus, Spain** and **Portugal** and in other territories with a mild climate, where the bees can pollinate, although the tree resists the cold and is also cultivated in the north, like the strawberry tree.

The fact that the tree assumes a rounded shape and the fruits are brought to the ends of the branches makes harvesting problematic; usually the conduction on the ground and the pruning induce a bearing sowing or espalier that favors the harvest. Even in the Philippines, the Japanese loquats are cultivated with low hedges, (no more than two meters high) to avoid the damages caused by typhoons; being in fact an evergreen plant with large and rigid leaves is subject to damage if subjected to violent winds, or snow load in harsh climates.

For seed reproduction, the **seeds** must be immediately sown, since they quickly lose their germinability, dehydrating. With the seeds it is possible to make a liqueur analogous to nocino, nespolino. However, the seeds of Japan's medlar contain small amounts of hydrocyanic acid (*cyanide*). The fruits are refreshing and refreshing.

## Adversities

It can be attacked by the bacterium *Erwinia amylovora* which is responsible for the bacterial fire.

## Uses

It is a melliferous plant, much sought after by bees for nectar and pollen; **honey is obtained only in Sicily and in southern areas where mild climate and not too rigid temperatures** allow bees to get out and bottle during flowering, which takes place between October and February. Japan's medlar flowers are very fragrant, with a scent similar to that of hawthorn. It is also used as an ornamental tree in gardens and parks.

