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**“PEARL IN THE CROWN”  
SIR SEEWOOSAGUR RAMGOOLAM BOTANIC GARDEN  
PAMPLEMOUSSES – MAURITIUS**

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**ABSTRACT.** In 2004 the authors visited Sir Seewoosagur Romgoolam Botanic Garden Pamplemousses – Mauritius. This paper contains information about history of the Garden and describes most interesting plants and plant collections. It is also documented with colour photographs.

**Key words:** Botanic Garden, Pamplemousses – Mauritius, plant collections

### **Introduction**

This publication is a continuation of a survey of famous botanical gardens in the world which are little known to the Polish reader. So far, we have presented: “Cactus Garden on Lanzarote (Canary Islands)” (**Baranowski** and **Dankowska** 1999), “Botanical Garden La Orotava on Tenerife” (**Baranowski** 1999) and “Kibuc Ein Gedi (Israel) – International Botanical Garden” (**Dankowska** and **Baranowski** 2000).

Mauritius Island was known to Arabian sailors already in the Middle Ages. In the 16th century, it was discovered and started to be colonized by the Portuguese. In 1598, the Dutchmen arrived to the actual Mahorburg, and in honour of their ruler, the Prince Maurice from, Nassau, they named the island “Mauritius”. In 1710, the Dutchmen left the island, and in 1715, it came under the rule of the Frenchmen and obtained the name “Ile de France”. In 1810, the island was conquered by the Englishmen and the island returned to the original name of Mauritius. On the 12th of March 1968, Mauritius gained independence within the British Commonwealth, and 24 years later (12th March 1992), it was proclaimed a republic.

## History and the present state of the garden

The Royal Botanical Gardens is situated in the town Pamplemousses, which lies about 11 km to the north-east from the capital, Port Louis (20°06' of latitude and 57°34' of longitude). The town received its name from citrus plants called "pamplemousses" (*Citrus grandis* (L.) Osbeck) growing there. These plants were imported to the island by the Dutchmen from Java. The fruits of these plants resemble big grapefruits, they have a thick peel, their taste is a bit bitter and they are rich in vitamin C. The Tamiles call them "bambolmas" and they use them for the production of marmalades and jams.

This beautiful garden is often mentioned as one of the most attractive ones and it is ranked as the third one among the gardens admired worldwide. Earlier, it was known under the following names: Jardin de Mon Plaisir, Jardin des Mont Plaisir, Jardin des Plantes, Le Jardin National de Ile de France, Jardin Royal, Jardin Botanique des Pamplemousses, The Royal Botanical Gardens, Pamplemousses, The Royal Botanic Gardens, Pamplemousses.

Since the 17th of September 1988, it bears the official name "Sir Seewoosagur Ramgoolam Botanic Garden".

The Royal Botanical Gardens, Pamplemousses, owes its origin to the first very known French Governor on Mauritius, Francois Mahe de Labourdonnais. In 1735, he bought Mon Plaisir and opposite to his residence, he started to grow vegetables. The vegetable garden was to supply vegetables not only to his family and his slaves, but also to the developing town Port Louis and to the ships arriving to the island. One can assume that it was the beginning of the botanical garden and therefore, it is regarded as the oldest botanical garden on the former British territories.

One of the first plants imported by Labourdonnais was manioc imported from Brazil. It was to provide nutrition for the slaves working on sugar cane plantations.

In the successive years, as a result of the owner's change, the garden became neglected. Almost the whole estate was planted with mulberry shrubs, because a French-and-West Indian company started to raise silk-worms and to produce silk.

In 1768, the control of the Garden was taken over by a French natural scientist, Pierre Poivre (Phot. 1; from his name, the French word 'pepper' takes its origin), who imported many new plant species including myristica and clove trees. He was also the main designer of the present appearance of the Garden. He planted many plants important from the botanical and economic points of view. He imported them from Europe, from the East and from Africa and he established nurseries for the acclimatization of myristica and clove trees.

In the years 1810-1849, the Garden experienced a difficult period. In 1849, the function of the Director of the neglected Garden was taken over by James Duncan. He restored the Garden and returned to it the former splendour and introduced many new plant species. Thanks to him, many palm species were imported together with the royal palm (*Roystonea regia* (Kunth) O.F. Cook), which embellishes two main alleys.

In mid-19th century, sugar-factories started to develop quickly on the island, and in the Garden different sugar cane species from the whole world started to be grown. Dr. Charles Meller, one of the Directors of the Garden was delegated to Australia and New Zealand to bring new sugar cane cultivars, however, he died during his return travel.

A monumental sugar mill operated by slaves remained as a souvenir of Dr. Charles Meller.

When in 1866, Mauritius was visited by malaria, eucalyptus trees were started to be grown in the Garden, by planting them on marshes, where mosquitos developed, trying to control in this way the disease.

The value of some trees in the Garden decreased as a result of several cyclones which visited the island. Particularly troublesome were the cyclones in the years 1861, 1892, 1945, 1960 (Carol), 1962 (Jenny), 1975 (Gervaise) and in 1979. The cyclon Carol is remembered until now, because on the 28 of February 1960, it caused within three hours a tremendous devastation on the island. It is worth of notice that the neighbouring islands are the place where the tropical cyclones develop and visit the Mascarena Archipelago (Mauritius, Reunion, Rodrigues) and Madagascar.

It is best to enter the Botanical Garden through the main gate (Phot. 2). It is particularly magnificent and beautiful. The gate has been made of forged iron and it was given as a present by Francois Lienard de La Moivoie. In 1862, the gate gained the first prize during the International Horticultural Exhibition in Crystal Palace in England. On each column, there is a framing with a lion and the column is surmounted with a unicorn.

The present area of the Garden covers 25 ha and is divided into quarters cut by alleys bearing the names of persons who contributed to the splendour of the Garden. In the main alley, Labourdonnais Avenue, there is Lienard Obelisk with the names of meritorious persons. At the same time, this obelisk is a landmark during the visiting of the Garden.

On the right hand side from the main entrance, there is a stone house built by the Englishmen, presently it is used by the Garden employees. The stone walls of the building are covered by a trailing fig-tree (*Ficus pumila* L.). In the vicinity of the gate, behind the building, there is also a very beautiful specimen of a baobab (*Adansonia digitata* L.) (Phot. 3) originating from Central Africa. These trees are known for their longevity and water accumulation in their stems. Near the house, there runs another alley (A. d'Epina Avenue) planted with most beautiful bottle palms (*Hyphorbe lagenicaulis* (Bailey) Moore) (Phot. 4). It is an endemic species to the island.

Still greater admiration is evoked by another alley (Poivre Avenue) planted with royal palms, *Roystonea regia* (Kurth) O.F. Cook (Phot. 5) and *Roystonea oleracea* (N. Jacquin) O.F. Cook. These palms have up to 50 cm diameter and they grow up to 40 m. Their leaves reach 7 m long, their flowers are yellow and have 50 cm. These palms originate from Barbados, Trinidad, Venezuela. In tropical countries, these palms are planted as decorative trees. The name *Roystonea* originates from the name of General Roy Stone, a hero of the war in the United States. The main difference between these species consists in the fact that *Roystonea regia* has a thickened log in its upper part, and *Roystonea oleracea* has a column-like log.

## The most interesting plants

### Spices

Among the numerous trees growing in the Garden, we can find such ones whose parts are known as popular seasonings.

**Clove tree**, aromatic clove tree – *Eugenia caryophyllata* (Thunb.); Myrtaceae family. It originates from Indonesia. It requires a tropical climate, and it does not tolerate ground frost. The tree grows up to 12 m, its flowers consist of four-part red calyces. Their fruits look like pears, they are red and aromatic. Dried flower buds are used as seasoning. They contain up to 20% of clove oil, eugenol, with a characteristic scent and burning taste. The oil is used in sugar industry, pharmaceutical industry, food industry and perfume industry as well as in dentistry. The main producers of this raw material include Zanzibar and Madagascar. From one tree, 3-4 kg of cloves are obtained. It is propagated by seeds. It fructifies at the age of 8-10 years.

**Myristica**, nutmeg tree – *Myristica fragrans* (Houtt); Myristicaceae family. It originates from Moluccas. The tree grows as high as 20 m. It has longitudinal, elliptic, leathery leaves. The leaves have full edges and they are distributed in a twisted sequence. It is a dioecious plant, it flowers the whole year round. Its flowers are small, modest and white. The fruit looks like a fleshy bag (its size is like that of an apricot) and it splits in two valves. During ripening, one can see a grey-brown spherical stone inside covered with a jagged scarlet aril called the **myristica flower** or **macis**. It can be used as a seasoning with a strong spicy taste. Seeds devoid of arils represent also a known seasoning called **nutmeg-apple**. It contains 4-9% of essential oil, 30% of starch, 35% of fat and 4% of myristicine – a compound with stimulating properties. Consumed in greater amounts it may be poisonous. Essential oils extracted from myristica flower and from the nutmeg-apple are used in the perfume and pharmaceutical industries. In the 14th century, when Europe was visited by the black death, rich people were wearing on their necks small bags with nutmeg-apple (as an amulet). Nutmeg-apple contains isoeugenol which kept away fleas spreading the bacteria of plague.

Myristica is a dioecious plant, propagated by seeds. In plantations, one male individual is planted as the pollinator for nine female plants. The trees start fruiting after 8-20 years of age.

**Jamaica pepper-tree** – *Pimenta officinalis* (Lindl); Myrtaceae family. It originates from Antilles. The tree reaches 13 m of height and it has canopy-shaped inflorescences. The flowers are bisexual and contain a four-part calyx, four petals of the crown, a great number of stamens and one pistil. Leaves are elliptic-lanceolate, leathery. When ground, they emit a characteristic mixture of scents: clove, nutmeg, cinnamon, pepper. Distilled oil from the leaves is used in perfume industry. Unripe dried fruits are known as **pimento** and they are commonly used in the kitchen as seasoning.

**Cinnamon tree** – *Cinnamomum verum* (Sweet); Lauraceae family. It originates from Ceylon. It is not a very high tree, about 10 m. It is characterized by the presence of essential oils contained in all plant organs. For seasoning purposes, primarily the cinnamon bark (phloem) is used. Twigs, about 2.5 cm thick are cut twice or three times during the year, then, they are debarked and the bark is thoroughly dried. The most aromatic is a thin bark with a bright colour. From the less valuable bark and waste material obtained during preparation, cinnamon oil is obtained and it is used in the pharmaceutical and sugar industries. The oil is also obtained from leaves by extraction. In such a case, it has an intermediate scent between cinnamon and cloves.

## Palms

**Coconut palm** – *Cocos nucifera* (L.); Arecaceae, Palmae family (Phot. 6). It originates from islands on Pacific Ocean close to Central America. The tree reaches 30 m height. Its pinnated leaves are up to 6 m long. Its fruit called coconut is a stone fruit weighing up to 8 kg and its external layer is built of fibres called ‘**coyra**’. Inside, there is the proper seed surrounded by a hard nut-shell. Endosperm in the form of a white, fleshy tissue lines the seed from the inside; in the middle, there is a chamber filled with a fluid commonly called **coconut milk** and its amount decreases with the ripening of the seed. Coconut milk is a refreshing nutritious beverage, and the dried endosperm is called ‘**copra**’. From copra, coconut oil is obtained and it is used for frying, for the production of margarine and in the cosmetic and pharmaceutical industries. Young leaves, the so called ‘**palm cabbage**’ are used as a vegetable, while the roots are chewed by the native people and they have narcotizing properties. Coconut palm blooms and fructifies the whole year round. The first fruits appear after 7-8 years.

**Pinnated Arenga**, sugar palm – *Arenga pinnata* (Wurmb.); Arecaceae, Palmae family. It originates from India and Malaysia. The tree reaches 20 m, its leaves are unevenly pinnated, concentrated on the top of the stem. From the sap flowing out from cut male inflorescences, brown sugar is obtained by evaporation. From one tree, 150 kg of sugar is obtained per year. After fermentation, one can obtain palm wine from the sap – **toddy**. From the core of the stem, flour – **sago** is obtained. It is easily assimilable and it is used in the nutrition of children and as an addition to desserts. The hair obtained from leaf sheath is used for the production of brooms, brushes, lines, ropes.

**Betel nut palm** – *Areca catechu* (L.); Arecaceae, Palmae family. It originates from the Philippines. The tree reaches 20 m. Leaves are big, up to 5 m long and clustered on the top of tree. Young leaves are used as a vegetable. Dioecious flowers are gathered in dense inflorescences. The fruits are berry-like and their size is similar to a hen’s egg. Seeds (**areca nuts**) are the basic component of betel used in the tropics as a stimulating agent.

**Raphia palm**, palm from Madagascar – *Raphia farinifera* (Gaertn.) Hyl.; Arecaceae, Palmae family. It has very long leaves reaching 10-12 m with abnormally long spadices 2-3 m. Its fruits are shiny with 10-12 grooves. The palm dies after blooming and fruiting. It is known for its hair called ‘**Rabane**’ which is used in agriculture because of its quick biodegradation ability. Leaves contain a great amount of wax, and beet- heart leaves are used for salads. Pulp of this palm contains 13% of fatty acid and highly concentrated palmaceous acid. Its sap fermentates quickly and it is used as alcohol.

**Talipot palm** – *Corypha umbraculifera* (L.); Arecaceae, Palmae family. It originates from Ceylon and from Malabar coast. Its log is up to 30 m high. Its leaves are fan-shaped with long spiky petioles. On the top, there is a widely branched umbrella-like inflorescence reaching 7 m of height and there are about 50 million flowers on them. After fruiting, the tree dies.

Furthermore, the following palms can be also met in the Botanical Garden:

*Acanthophoenix rubra*, *Acrocomia sclerocarpa* (Mart.), *Aiphanes elegant* (Linden & H. Wendl.), *Arecastrum romanzoffianum* (Cham.) Becc., *Areca triandra* (Roxb), *Bactris major* (Jacq.), *Bentinckia nicobarica* (Kurz) Becc., *Bismarkia nobilis* (Hildebrandt & Wendland), *Borassus flabellifer* (L.), *Caryota urens* (L.), *Chrysalidocarpus lutescens*

(H. Wendl.), *Chrysalidocarpus madagascariensis* (Becc.), *Deckenia nobilis* (H. Wendl. ex Seem.), *Dictosperma album* (Bory) G.H. Wendl. et Rude ex Schaff., *Elacis guineensis* (Jacq.), *Elaeocarpus serratus* (Benth.), *Howea belmoreana* (C. Moore et F. Mulle.) Becc., *Latania loddigesii* (Mart.), *Latania lantaroides* (Gaertn.) H.E. Moore, *Latania verschaffeltii* (Lem.), *Livistona chinensis* (Jacq.) R. Br. ex Mart., *Livistona rotundifolia* (Lam.) Mart., *Lodoicea maldivica* (J.F. Gumel.) Pers., *Nephrosperma vanhoutteanum* (H. Wendl. ex Van Houtt.), *Phoenicophorium borsigianum* (K. Koch) Stuntz, *Ptychosperma macarthuri* (H. Wendl.) G. Nicholson, *Raphia vinifera* (P. de B.), *Raphia excelsa* (Koban), *Roystonea regia* (Humb., Bonpl. et Kunth) O.F. Cook, *Roystonea oleracea* (Jacq.) O.F. Cook, *Salacca edulis* (Reinw.), *Sabal palmetto* (Lodd.), *Syagrus coronata* (Mart.) Becc., *Thrinax excelsa* (Lodd. ex Griseb.), *Veitchia merrillii* (Becc.) H.E. Moore], *Verschaffeltia splendida* (H. Wendl.), *Washingtonia filifera* (Linden ex Andr'e) (Phot. 7).

### Plants with edible parts

**Cassave manioc** – *Manihot esculenta* (Crantz); Euphorbiaceae family. It originates from tropical Brazil. It is called '**mandioca**' or '**cassava**'. It is a shrub 1-5 m high. Adventitious roots developing from the shoot base create sections of several centimeters which pass into cylindrical or spindle-shaped storage tubers (15-100 cm long and 3-15 cm thick). In the tubers, there is 35% of starch, up to 5% of sugar and up to 2% of protein. One plant can have 5-10 of such root tubers. There exist sweet and bitter forms. The bitter forms are consumable but after previous removal of toxic manihotoxine glycoside which easily transforms into prussic acid. The toxic properties disappear after boiling, baking or drying. Flour received from manioc tubers is called '**tapioca**' and it is the main food for the people living in the tropics. It is also the starting product for the production of beer called '**cassava**', or other alcohol beverages. It is also used for the production of pudding powder, sweets, cookies. The edible manioc is simple for growing and it is resistant to locust. From one hectare, 50-60 tons of tubers can be obtained.

**Bread fruit tree** – *Artocarpus heterophyllus* (Lam.); Moraceae family. It originates from Indo-China. The trees reach 25 m, they are evergreen with milk sap in their tissues. Their fruits are among the biggest ones in the world. The fruits grow from the stem or from thick boughs reaching 90 cm of length and 30 kg of weight. They are consumed raw, and their seeds are consumed as well but after baking. On the surface of the fruit, there occur short blunt spikes. Each spike is produced by one flower. The surface of the fruit is hard and one must use a chopper to cut it. The fruit flesh has a cream colour at the beginning, but as it ripens, the colour changes to a brownish one, particularly around the seeds. The fruit is very tasty, but it has an unpleasant smell. Young and small fruits are consumed in fresh state as a vegetable, older fruits are dried or processed for jams. In Indo-China, the female inflorescences are incised and the drained sap is collected to prepare syrup from it after evaporation. In one fruit, there are 100-600 seeds, one seed has the size of a chestnut and the colour is dark-brown, sometimes black. They are consumed after baking. Bread tree is grown for fruits, but its wood is also valued in the furniture industry. The wood is yellow passing into dark-red colour resembling mahogany. The tree is propagated by seeds.

**Bread tree** – *Artocarpus altilis* (Fosb.); Moraceae family (Phot. 8). It originates from Moluccas, New Guinea. The tree reaches 20 m, its leaves are cut out, 60 cm long

and 25 cm wide. Female inflorescences are composed of several tens or several hundreds of modest flowers; the male flowers are still more numerous. Fruits are green and weigh up to 5 kg (on the average 2 kg) and they ripen throughout the whole year. They can be eaten raw or after baking, their taste is similar to potatoes.

**Amazonian water-lily** – *Victoria amazonica* (Haenke); Nymphaeaceae family (Phot. 9). It originates from the river-basin of the Amazon and its tributaries, Brazil, Bolivia and Guiana. This plant was discovered in 1801 by the botanist Haenke during his journey across South America. However, he died before the publication of his discovery. His travel companion, father La Cuera told about this discovery to another French natural scientist d’Orbigny and he continued to investigate the natural localities of this plant in his successive expeditions (1827) and published this information in 1840. After several failed attempts, finally some seeds of this plant were successfully transported to England and in the botanical garden of Kew, the first plants were obtained. The first blooming specimen was obtained in 1849 and it was donated to the duke of Devonshire. The native people call this water-lily ‘**apona**’, which means ‘**bird’s frying pan**’. Floating leaves reach the diameter of 170-200 cm, and in the country of their origin, the diameter reaches even 400 cm. The leaf edge, 6-10 cm wide is bent upwards preventing the flooding of the leaf blade by water or the limitation of gas exchange. Strong ribbing of the lower side of the leaf provides some kind of a scaffold preventing their breaking. The ribs are 5 cm wide and 6 cm high. Their air tissue is very well developed preventing sinking. Therefore, they can maintain a load reaching 75 kg. The nerves and the lower part of leaves are strongly covered with spikes protecting the plant against consumption by animals. The upper side of the leaf blade has numerous stomatal apparatuses. There are also some small not numerous openings arranged in a system of canals with 0.1-0.2 mm diameter inside the blade. These canals connect the upper and the lower side of the leaf blade. Their function is to remove precipitation water from the leaf surface. Flower buds are tightly wrapped by four parts of calix which are also covered with spikes. From the calix, there emerge numerous pink crown petals. The flower has a 25-35 cm diameter. The flower opens in the afternoon hours and closes in the morning. In its interior, pollinating insects are frequently trapped and they are released in the morning, covered with pollen. After pollination, the flower changes colour into intensive red-pink. In the morning of the following day, the flowers wilt and submerge in water. In periods with lesser insolation, flowers develop during three successive evenings, first the white ones, then the pink ones, and on the third day, the dark-carmine and the blue ones. The fruits ripen under water. In the magnificent fruits, there are numerous seeds, which are used by the native people as the so-called ‘**water corn**’. They are ground to powder and are used as the basis of their beloved dishes supplying a diversity to their diet based mainly on flour and manioc.

**Sacred lotus** – *Nelumbo nucifera* (Gaertn.); Nelumbaceae family (Phot. 10). It originates from tropical and subtropical Asia. It is a perennial plant with a long and thick rhizome trailing under water. Leaves protruding from it have a shape of discs with a funnel-like hollowing in the middle and they protrude over water surface. A layer of wax covering the surface of leaf blades makes that rain and water waves do not make it wet. The plant has a developed system of air canals which supplies oxygen to the rhizomes submerged in water and mud. The flowers are big, of red, pink and white colour. Pollination by insects takes place on the first day after flower opening, Stamens ripen on the next day. On the third day, the flower cover and stamens fall down and the temperature inside the flower increases. The fruits are called ‘**Pythagorean**’ or ‘**Egyptian bean**’

are very rich in starch and they are very willingly consumed. They are characterized by longevity. They maintain their germination ability for about 1000 years. In Buddhism, lotus is a religious symbol and it is frequently cultivated in the vicinity of temples. From the milk sap, medicaments are prepared in India and seeds are used to produce 'miraculous' magic beverages.

**Bengalese ficus** – *Ficus bengalensis* (L.); Moraceae family (Phot. 11). It originates from India. The tree is about 30 m high, sometimes it consists of several thousand stems and the circumference of the crown reaches 700 m. Originally, the plant behaves like epiphytes. Seeds are distributed by birds and initially they germinate on other trees. With the development of the tree, the shoots of the growing tree entwine the host plant and strangle it occupying its place. From the side branches, there rise numerous supporting roots, which play the role of a secondary stem. This leads to a continuous growing of newer and newer stems creating a vast shrubbery. In this way, there develops an ideal shelter for humans and birds. Fruits are purple-red, their size is like that of a cherry and in the period of hunger, they supply nourishment for the native people.

**Common screw pine tree, pandan** – *Pandanus heterocarpus* (Balf); Pandanaceae family (Phot. 12). It originates from tropical areas of Asia, Australia, Polynesia and Africa. Shrubs of trees are 20 m high, they grow at water sides. They develop supporting roots. Their leaves are long equally narrow with a spiky edge. They are hard but elastic and the native people use them for roof covering and for weaving mats, baskets, sandals and hats. The flowers are dioecious, aromatic and they are used for the production of perfumes and folk medicine. Their fruits are berries or stone fruits with an oily endosperm. The fruit reaches 12 kg and it can be consumed in raw state or the juice is expressed for drinking. The plant fructifies twice in the year.

**Indian mango** – *Mangifera indica* (L.); Anacardiaceae family. It originates from India, Malaysia, the Philippines and South China. It is an evergreen tree, reaches 30 m, its leaves are leathery, lanceolate with full edges. White-green aromatic flowers are gathered at the top into panicles. It has stone fruits, green or yellow with an oval shape. It is 10-20 cm long and its mass is 200-2000 g. The flesh of the fruit is aromatic and juicy. It contains 17% of sugar, 0.3-0.7% of protein and significant amounts of mineral salts and vitamin C. From young leaves one can prepare salads. The tree fructifies once a year. It is a long living plant, it lives 300 years or more. Because of a dense foliage and a spreading crown it gives shade and that is why it is planted in the centre of human settlements.

**Leetchee** – *Litchi chinensis* (Sonn); Sapindaceae family. It originates from South China. It is an evergreen tree up to 12 m high. Its leaves are pinnated, lanceolate; the flowers are small, yellow-green. It blossoms only once a year. It has stone fruits with a hard red, nodulous external part of the pericarp. The fruit is very tasty. It contains 11-28% of sugar, 1% of protein, 1% of organic acids, great amounts of vitamin C. The fruits grow in clusters (2-20). The tree belongs to longevity trees. In China, some specimens may be as old as 1300 years.

### Other plants

**Blue gum tree** – *Eucalyptus globulus* (Lab.); Myrtaceae family. It originates from Australia and Tasmania. The tree reaches 60 m. It is a strongly transpiring species, therefore it is frequently planted in order to reclaim swamps. During transpiration it



secretes aromatic oils which purify the air. Leathery leaves of different sizes and shape with glands secreting aromatic oils are used in therapy and in perfume industry. The leaves frequently take a parallel position to the angle of sun rays in order to protect the leaf blade against excessive heat, therefore, the trees give little shade. Flowers are bisexual and they are singly set in leaf corners. The fruit represents a multi-seed bag, lignified, with an opening cap on the top. The seeds are very small and numerous.

**Live sausage tree** – *Kigelia africana* (Lam) Benth.; Bignoniaceae family (Phot. 13). It originates from the subtropical and tropical zone. The tree reaches 15 m. Leaves are pinnated. The flowers are campanulate, dark-carmine, 12-15 cm long, gathered into chandelier-like panicles similar to the inflorescence of chestnut. However, they are significantly bigger and have less flowers. The flowers open during the night and they are pollinated by bats. In the phase of maturity, flower petioles elongate up to 3 m and even become a little thicker. For several months, at the end of whip-like shoots, there develop fruits which are 60 cm long and their surface (in result of cell suberization) is strongly rough. The shape and colour of the fruit resemble a hanging ham. The fruits are not edible but they are frequently used in folk medicine, among others, against bites of snakes.

**Pilgrim's tree** – *Ravenala madagascariensis* (Sonn.); Strelitziaceae family. It originates from Madagascar. The tree reaches 8-10 m. Leaves are 4-5 m long and they are arranged in one plane like a fan. The leaves are divided into: leaf sheath, petiole and hard green leaf blade. From the thick central nerve, the lateral nerves branch out under a right angle and therefore, the leaf blades growing slower become jagged under the action of wind and the leaf looks as if it were pinnated. The name of the tree originates from the fact that pilgrims who were thirsty could get about 1.5 litre of drinking water by incising the empty leaf sheaths. However, it is believed that the water is not fit for consumption because it contains a rich bacterial flora and also many other organisms including tiny amphibians.

**Camphor tree** – *Cinnamomum camphora* (Sieb); Lauraceae family. It originates from the southern part of China, Formosa, and Japan. The tree reaches 50 m. The whole plant is very aromatic. From the wood of this species, **camphor** and **camphor oil** are obtained by distillation, and they are used in medicine and in chemical industry for the production of celluloid, varnishes, smokeless powder and rubber. The wood is hard, it is not attacked by insects, therefore it is willingly used for the production of furniture, boxes, boats or wainscot. It is a long-lived tree, it can live even 1000 years. Its leaves have a twisted arrangement, they are leathery with full edges, 10 cm long, oval and shiny. After grinding, they emit a characteristic scent. Its flowers are inconspicuous, yellowish with a diameter of about 4 mm. Its stone fruit is globular, navy-blue, 7-12 mm long and it has a strongly aromatic flesh.

**Mahogany tree**, *Swietenia mahagoni* (L.) Jacq.; Meliaceae family. It originates from Antilles, Florida, Mexico, Honduras, Columbia and Peru. The plant has received its name to honour the memory of a Dutch botanist Gerard van Swieten. The trees are up to 30 m high, their bark peels off small flakes. It is an evergreen tree with evenly pinnated leaves consisting of two-seven pairs of lanceolate small leaves. Its flowers are white, dioecious, gathered in lateral, peniculate inflorescences. Its fruit is an oval five-valve, lignified bag with numerous seeds terminated on one side with a small wing. Its wood is red-brown with a beautiful design. The wood has the highest value among the tropical wood raw materials because of its hardness.

**Flamboyant** – *Delonix regia* (Bojer ex Hook) Raf.; Caesalpiniaceae family (Phot. 14). It originates from Madagascar. It is one of the most beautiful and frequently planted decorative trees. They are planted along the streets, in parks. It blooms in the period of Advent announcing Christmas. It creates a multitude of superb flowers and their shining scarlet crown petals are nerved by strips of white-orange colour. The flowers are pollinated by birds.

**Tropical almond tree** – *Terminalia catappa* (L.); Combretaceae family. It grows from East Africa to Polynesia. The tree is 25 m high. The storeyed structure of the crown and its colour-changing leaves (first they are bright-red and before falling down, they become yellow) impart to the tree a decorative appearance. Its fruits contain 50% of fatty acids and in their taste, they are similar to almonds. They can be consumed raw. Its fruits, roots and bark supply tannins. From the fruits, after an addition of ferric salt, a black dye is obtained which is used in India. Its fruits, 8 cm long, have a characteristic structure of their covers: the external cover is fleshy, the central part is thick, filled with cork and the internal part is as hard as stone. This fact permits different methods of spreading. The juicy part of the parenchyma lures bats, the central part, light and filled with air, permits transport by water. Thanks to this fact, the species is spread along all sea coasts of the tropical zone of the Old World. The fruits of the tree belong to drifting fruits thrown by sea to the shores.

**Resinous tree** – *Agathis robusta* (Moore ex F. Mulle) Bailey; Araucariaceae family. It originates from New Zealand. The evergreen tree reaches 50 m height. The resin exuded from them falls to the ground and creates yellow or colourless lumps called ‘copal’. It is used to heal eczema and to produce laquers.

**Porcelain rose** – *Nicolaia elatior* (Jack.) Horan.; Zingiberaceae family (Phot. 15). It originates from Malaysia. It is a decorative plant with head-like inflorescences, it is widely spread in the tropics. It has red stipules and red flowers which are willingly visited by birds. The plant has many shoots and trailing roots. Its leaves are 5 m long. Ripe seeds are edible. Its fruits and leaves are used for therapeutic purposes.

**Hindu holy tree** – *Ficus religiosa* (L.); Moraceae family (Phot. 16). It originates from India. The trees are big with spreading boughs and very thick stems. Leaves have a long pointed top section removing water from the blade surface. Even after the most violent rain-fall, the leaf surface is almost immediately dry. The trees are frequently planted in the surroundings of temples and before houses to insure well-being and happiness. It is a holy tree of Hindu and Buddhist people. The Hindu people believe that under the crown of this tree, their god Vishnu was born, and under that tree, Gautama Buddha after six-year meditation acquired enlightenment. Hindu people, both men and women, who desire progeny, walk round the tree 108 times repeating a special prayer.

Concluding, it may be interesting to mention a little known tree: *Juniperus bermudiana* (L.), (Cupressaceae family), which has very beautiful aromatic wood of pink colour which is used as building material. The major part of these trees perished due to an unidentified disease, and in the Botanical Garden, there remained only a few specimens.

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KRÓLEWSKI OGRÓD BOTANICZNY „PERŁA W KORONIE”  
W PAMPLEMOUSSES NA WYSPIE MAURITIUS

## Streszczenie

Wyspa Mauritius znana była żeglarzom arabskim już w średniowieczu. W XVI wieku zaczęli ją kolonizować Portugalczycy, a następnie Holendrzy, którzy na cześć księcia Maurycego z Nassau nazwali ją Mauritius. Po opuszczeniu wyspy przez Holendrów przez sto lat zarządzali nią Francuzi. Gdy Francja była osłabiona klęskami Napoleona, Mauritius opanowali Anglicy. 12 marca 1968 roku wyspa uzyskała niepodległość w ramach Wspólnoty Brytyjskiej, a po 24 latach (12 marca 1992 r.) proklamowano ją republiką.

Największą atrakcją wyspy jest Królewski Ogród Botaniczny, często wymieniany jako jeden z najpiękniejszych, a w rankingach stawiany na trzecim miejscu wśród najbardziej podziwianych ogrodów na świecie. Za początek Ogrodu uważa się 1735 rok, w którym sprowadzono na wyspę z Brazylii maniok, podstawowe wyżywienie niewolników. Następnie na wyspę zaczęto sprowadzać rośliny z całego świata, które dzięki sprzyjającym warunkom i dobrej pielęgnacji szybko się rozwijały.

Obecnie Ogród zajmuje powierzchnię 25 ha, jest podzielony na kwatery poprzecinane alejami noszącymi nazwy osób zasłużonych dla Ogrodu. Jego chlubą jest bogata kolekcja palm z okazałą palmą królewską (*Roystonea regia*) oraz endemiczną palmą butelkową (*Hyphorbe lagenicaulis*), a także wspaniały okaz baobabu (*Adansonia digitata*). Dużą grupę roślin stanowią rośliny przyprawowe, m.in.: drzewo goździkowe (*Eugenia caryophyllata*), muszkatowiec korzenny (*Myristica fragrans*), korzenник lekarski (*Pimenta officinalis*), cynamonowiec cejloński (*Cinnamomum verum*).

Osobną grupę stanowią rośliny o częściach jadalnych, takie jak: maniok jadalny (*Manihot esculenta*), chlebowiec różnolistny (*Artocarpus heterophyllus*), chlebowiec właściwy (*Artocarpus altilis*), grzybień amazoński (*Victoria Amazonia*), lotos orzechodajny (*Nelumbo nucifera*), fikus bengalski (*Ficus bengalensis*), pandan (*Pandanus heterocarpus*), mango indyjskie (*Magnifera indica*), liczi chińskie (*Litchi chinensis*).

Na uwagę zasługują także inne ciekawe gatunki, takie jak: eukaliptus gałkowy (*Eucalyptus globulus*), drzewo kiełbasiane (*Kigelia africana*), drzewo wędrowców (*Ravenala madagascariensis*), kamforowiec lekarski (*Cinnamomum camphora*), mahoniowiec właściwy (*Swietenia mahagoni*), płonące drzewo (*Delonix regia*), święte drzewo hindusów (*Ficus religiosa*) i wiele innych.

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