

Empress tree

Paulownia tomentosa, princess tree, empress tree foxtglove-tree



Chinese herbal medicine has used *P. tomentosa* traditionally to **relieve bronchitis, especially by reducing coughing, asthma, and phlegm**. It has also been used to treat conjunctivitis, dysentery, enteritis, erysipelas, gonorrhea, hemorrhoids, parotitis, traumatic bleeding, and tonsillitis

Paulownia is a unique species of fast-growing trees that have no analogues in the world. On the pages of our site you will be able to find out everything that concerns the culture of Paulownia, and also to purchase our products.

The tree comes from China. The earliest documents and chronicles mentioning the use of this wonderful tree date back to 2,600 years AD. For centuries the tree grew in Japan. And it was known by the name of Kiri, which means "life" in Japanese. Kiri has always been considered a sacred tree and a symbol of good luck. By tradition, at the birth of a daughter in the family, they planted the Paulownia tree. When the girl got married, the tree was cut and her wedding trunk was made from it. In addition, there was such a belief

that if you plant Paulownia near your home, the phoenix bird will fly and bring happiness.

In Japan, Paulownia has been used since 200 AD, and it represents a national value. The Japanese, who are very fond of both aesthetics and symbolism, chose Paulownia as an emblem in the cabinet of the minister

There is hardly a more explicit way to emphasize the national importance of Paulownia for the Japanese people than its presence in the Order of the Rising Sun . This first order of Japan was established in 1875, which was awarded to individuals of the highest rank, such as admirals, generals, diplomats, lawyers and politicians for their services to the country.



Also, Paulownia is depicted on a Japanese coin in the value of 500 yen

Cosmeceuticals

It is established that the leaves of Paulownia contain substances that have beneficial effects on the liver, kidney and gallbladder, and the leaves of Paulownia are also used for problems with the lungs. In China, the properties of the leaves of Paulownia have been known for a long time, even the pharmaceutical industry is involved in the industrial production of Paulownia-based medicines. Leaves of Paulownia have other properties: their use in cosmetics in Asian countries is as old as their application in medicine, but it is a novelty for Europe. Only in recent years, extracts from the leaves of

Paulownia are included in the composition of medicines, creams and perfumes

About paulownia

Perfumery

Awakening from winter hibernation in February and March, Paulownia grows flowers in the form of a bell, each up to 6 cm in diameter, fleecy, bluish violet, lilac or almost white. The aroma (notes) of flowers of Paulownia is defined as vanilla, powdery and slightly almond. It is established that this is due to the heliotropin substance contained in the aroma known in perfumery and present in other flavors (e.g. Tahitian vanilla). The aroma of flowering Paulownia is analyzed by the so-called "GC mass spec" (Gas chromatography–mass spectrometry) method, based on gas chromatography and mass spectrometry.

About paulownia Honey

In addition to beauty, the flowers of Paulownia are also distinguished by strong, fragrant aroma and they are an excellent nectariferous plants! From one hectare of Paulownia it is possible to receive 800 kg and more honey. The advantage is that when growing Paulownia tree, the chemical products are not used at all, so we do not harm bees that do not tolerate the use of herbicides and other chemicals, receiving a NATURAL (ECOLOGICALLY CLEAN) product. Honey from Paulownia is light, transparent, very bright and fragrant. Honey from Paulownia can be compared only with honey from acacia by its color and consistency. Honey from Paulownia, as well as acacia, is of the highest quality. In addition to being a delicacy, it also serves as a medicine. Its properties are known as such that have beneficial effects and help in the treatment of bronchitis, lungs and respiratory system diseases, and Paulownia also improves the function of the gallbladder, liver and digestion in general. The qualities of Paulownia honey are determined by biologically active substances in its flowers, so that flowers themselves are used for food.

About paulownia

Application in food

In addition to the Chinese experience in this respect, we cannot miss the fashionable use of Paulownia's flowers in the form of horns with cream – it can sound like an exotic dessert, but it is already a part of the menu of many European restaurants.

With the ever increasing consumption of biofuels, in the near future, the countries of Central Europe will not have enough of their forest resources, so Germany, the

Netherlands, the United Kingdom and Spain plan to significantly increase the import of pellets.

At present, when technological progress is measured by the degree of protection of nature, more attention has been paid to biofuels from renewable, high-performance energy crops. The use of Paulownia in the form of energy raw materials: Paulownia tree is used except in the industry, also in the energy sector in the form of pellets (solid fuels for boilers and fireplaces with fully automated fuel supply), as well as in the form of raw materials for alternative recovered biofuels. For these purposes, all parts of the tree are used: trunk, branches and leaves. Pellets can be used both for boilers heating private houses and apartments, and for large installations and electrical networks. Biogas is a new source of renewable energy, environmentally friendly and economically viable. This is a gas consisting mainly of methane (CH₄), carbon dioxide (CO₂) and small amounts of other gases. This gas occurs when fermenting organic substances under anaerobic conditions (in the absence of oxygen). Biogas installations are installations where the accelerated form of the natural decomposition cycle occurs.

The leaves of Paulownia are increasingly being used as a component of the organic matter of this biofuel. Having a large size, at decomposition more basic gases are produced, of which biogas is directly composed, compared to the organic material offered by other types of plants, making Paulownia an ideal product for obtaining this biofuel.



Another application of Paulownia is its use as raw material for the production of Bioethanol. American scientists have developed a new technology based on the combination of thermochemical and biotechnological methods resulting in the extraction of 511 liters of ethanol from one ton of dry wood. This is the only reason to call our tree an “oil well”.

The creation of plantations of fast-growing trees, combined with the innovative technologies for growing Paulownia trees can become an important part of the policy of saving resources and solving problems related to energy consumption, without risk to the environment.

All kinds of Paulownia cultivated for commercial purposes are clones. This means that they are identical plants with the specific characteristics. The most used species in the wood industry are hybrids based on Paulownia Fortunei and Tomentosa, as the former species is endowed with the properties of rapid growth and high-quality wood, and the second species is known for its tolerance to cold and it can develop in

places where winter temperatures reach -10°C or even lower. Also on a par with them, the *Paulownia Elongata* and its hybrids are used. This species also gives excellent results, but you need to take into account the fact, that it is thermophilic species. Therefore, we want to focus your attention on the fact that species are very different in characteristics and resistance to weather conditions and you need to approach the choice of planting material very carefully! To date, the market has a wide range of species of various hybrids of *Paulownia* intended for the cultivation of quality wood.

