

**BIOMORPHOLOGICAL FEATURE OF TULIP TREE (LILIODENODRON TULIPIFERA)****Abdullayev Oybek Shakirjanovich**

Assistant of Andijan Institute of Agriculture and agrotechnologies

**Soliyeva Sarvinoz Kamoliddin kizi****Mamatxoliqova Nozimaxon Ilxomjon kizi**

Students of Andijan Institute of Agriculture and Agrotechnology

**Abstract:** This article presents information about the bioecology of the Tulip tree (*Liliodenodron tulipifera*), which is considered a bright representative of the magnolia (*Magnoliaceae*) family.

**Key words:** *Liliodenodron tulipifera*, North America, Avenue, Forestry, Landscape gardening.

Tulips are propagated from seeds and cuttings. Young shoots are grown from branches that are separated from the mother tree after two years. The tree is up to 30 m tall and up to 2 m in diameter. A plant belonging to the magnolia family. The bark of the body is cracked, typical gray color, the branches are oval or wide pyramidal. The flowers are similar to tulips, 5 cm tall, light yellow or pinkish green. Homeland - North America. Intolerant to salinity. Cold resistant. Loves moisture. Lover of light. and shade tolerant.

Can be planted in all regions of Uzbekistan (except saline soils). The wood of the tulip tree is light and strong, and easy to work and sand. It is widely used in the production of plywood for musical instrument and radio receiver cases, as carpentry and cabinet wood, among other uses. Another amazing feature is that very useful honey is obtained from the tulip tree. This honey is very fragrant, healing and has a delicious taste. This tree has a lot of honey nectar. According to estimates, bees collect more than 1 kilogram of honey from one tulip tree. We would like to draw your attention to another important feature of this tree.

A walk in the alleys with tulip trees gives a person peace and tranquility, calms the nervous system, and lifts the spirit. Long-lived and with many medicinal and useful properties, this rare tree is adapted to our climate. Our gardeners and gardeners have successfully mastered the technology of growing its seedlings. It is certainly not for nothing that trees, which are the main factor and support for the existence of life on earth, are described as the symbol of life. In fact, according to experts, one hectare of trees emits 600 kilograms of oxygen into the air.

The ornamental tulip trees planted in recent years add beauty to our city. The tulip tree stands out for its upright and tall growth. This tree lives on average 400-500 years. It blooms in April-May. The flowers are tulip shaped. It always smells good. Seven years ago, since 2009, this tree has been planted in the streets and parks of our city. The propagation of its seedlings is carried out by the Botanical Garden, Forestry, Landscape Horticulture and Floriculture State Enterprise in our capital, as well as by private business entities specializing in the cultivation of seedlings. After 3-4 years of care, when the height of the seedlings reaches 1.8-2 meters, they are planted in designated places.

These sprouts are developing and adapting to the climate of our city. It is known that decorative trees are not only beautiful, but also useful for human health. Therefore, special attention is paid to the breeding of tulip trees and other ornamental trees in our city. Especially, the green areas and trees on the sides of the highways have a sanitary function in cleaning the air by catching the harmful gases emitted by the increasing number of vehicles. According to the data, the amount of harmful

gases and substances released into the air in Andijan city decreased by almost 9 thousand tons last year.

This is undoubtedly the result of such efforts. Today, gardens and avenues covered in green, tulip trees in the streets and squares are adding to the beauty of the city of Tashkent, the capital of our independent country. We think that many people will agree with this opinion if we say that they were well liked by the residents of the capital, - they fit into our modern life, which is becoming more and more beautiful and prosperous.

Liliaceae (*Liliodendron tili-*) (flowering plants) is the largest division of higher plants and contains more than half of the plant species known on earth today. These are markedly different from representatives of other departments with certain characteristics characteristic of them.



**Flowering period and flower overview of the tulip tree (*Liliodendron tili*).**

One of the most characteristic features is the presence of a maternal (seed) organ in their flower. The mother is a new organ formed by the addition of one or more fruit leaves (macrosporophyll) in the process of seed evolution. In this case, the fruit and leaves have grown together in such a way that their lower part has expanded and created a void. This cavity is called a node, and inside it the seed bud (modified macrosporangia) develops.

After fertilization, the node turns into a fruit, and the seed inside it turns into a seed. These plants are called angiosperms because the seed is located inside the node. Because the seed is located

inside the node, that is, inside the fruit. In open-seeded, the seed is located in the lower part of the macrosporophyll of the bud.

In addition, the most characteristic features for magnoliophytes include:

1. 8 - the presence of an embryonic state with a nucleus;
2. Secondary paternity;
3. Triploid endosperm;
4. The presence of a maternal nipple;
5. Having a typical flower with a sepal;
6. Tracheae (true tubes) (tracheids in gymnosperms have) to be.

We can see that the tulip tree (*Liliodendron tiliifolium*) is more reduced. Flowering plants that combine vegetative and generative organs (flowers) are considered to be sporophytes. Another characteristic feature of the tulip tree (*Liliodendron tiliifolium*) is the adaptability of flowers to pollination. A strongly reduced female sexual offspring - the gametophyte - develops in the flower, inside its node. Pollen chambers (microsporangia) grow from anthers, which are formed as a result of the transformation of microsporophylls.

As a result of reductive division of archesporic cells in dust chambers, dust - microspores are formed. The male gametophyte developed from these pollens is formed from only two cells of vegetative and generative cells, and then two sperms are formed from the division of generative cells. changes and connects the origin of magnoliophytes with extinct representatives of sago trees.

According to the theory of Strobiliar (Evant), Ch. Bessi later created his own system. Gallir and Bessie were followed by England's Gotchinson - B. M. Kozo - Polyansky (1922).

Kozo - Polyansky also associates flowering plants with bennites. From the 40s of the 20th century until now, one of the systematists widely promoting the theory of Arber and Parkin is A.L. Takhtadzhian. Takhtadzhian's theory is strictly monophyletic. He also places many fruits (magnolias) at the head of the magnoliophyte system.

#### LITERATURE:

1. Гинкул С.Г. Магнолиевые в советский субтропиках. Батуми. 1939.
2. Мурзова Р.М. Освоение трудно интродуцируемых листопадных видов рода магнолия. Ташкент. «Фан», 1974.
3. Тахтаджян А.Л. Система и филогения цветковых растений М - Л. Наука. 1966 г.-611с.
4. Бабаджанов Р. Отношение интродуцентов к повышенной летней температуре воздуха в условиях Ботанического сада им. А.Темура.
5. Rain – Japan nachReisen und studien. 1886

8. Абдуллаев О., Тўхтаев Б. Фарғона водийси шароитида қора мевали Арония (*Aronia Melanocarpa L.*)нинг интродукцияси ва биоэкологик аспекти” Innovative Development in Educational Activities. 2022. 1(2), 54-62.
6. Абдуллаев О.Ш., Тухтаев Б.Ё. Первые результаты исследований по интродукции черноплодной аронии (*Aronia melanocarpa L.*) в условиях Ферганской долины // Актуальные вопросы садоводства и картофелеводства: сб. тр. науч.-практ. конф. Челябинск, 2023. С. 16-24.
7. Shakirjanovich A.O., Furqat A.Q. The Importance Of Some Species Belonging To The Magnoliaceae Family In Greenhouse And Propagation Methods // Ethiopian International Journal of Multidisciplinary Research. 2024. 11(01), 132-135.
8. Shakirjanovich A.O. Carrying out agrotechnical measures when growing paulownia seedlings // Ethiopian International Journal of Multidisciplinary Research. 2024. 11 (01), 136-140.
9. Абдуллаев О.Ш., Тухтаев Б.Ё. Первые научное исследование интродукция черноплодной аронии (*Aronia melanocarpa L.*) в условиях Ферганской долины // Science and innovation. 2022. (2). С. 405-411.
10. Абдуллаев О.Ш., Абдуллаева Х.З., Туйчиев И.У., Темиров А.М. Андижонда ўрмон фонди ерларидан самарали фойдаланилиниш ҳолати // Молодой ученый, 2019. 21 (259). С. 594-597.
11. Shakirjanovich A.O., Furqat A.Q. The Importance Of Some Species Belonging To The Magnoliaceae Family In Greenhouse And Propagation Methods // Ethiopian International Journal of Multidisciplinary Research. 2024. 11 (01), P. 132-135.
12. Shakirjanovich A.O. Carrying out agrotechnical measures when growing paulownia seedlings // Ethiopian International Journal of Multidisciplinary Research. 2024. 11 (01), P.136-140.
13. Абдуллаев О.Ш., Тухтаев Б.Ё. Первые научное исследование интродукция черноплодной Аронии (*Aronia melanocarpa L.*) в условиях Ферганской долины // Science and innovation. 2022. (2). С. 405-411.
14. Абдуллаев О.Ш., Абдуллаева Х.З., Туйчиев И.У., Темиров А.М. Андижонда ўрмон фонди ерларидан самарали фойдаланилиниш ҳолати // Молодой ученый, 2019. 21 (259). Б. 594-597.