



Farwaniyah Educational Zone

Anas Bin Malik Secondary School for Boys

Research:

Conocarpus tree

Its pros and cons on the Kuwaiti society

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## Introduction:

Have you ever thought of a tree that is useful but harmful at the same time? The Conocarpus tree is very well known for its street decoration in Kuwait. Some people think that the tree should be planted everywhere while others think that it should be removed.

What is the Conocarpus tree?

Conocarpus is a genus of two species of flowering plants in the family of Combretaceae. Conocarpus tree was introduced to Kuwait in 1988 for use of various greening projects and activities in the country. Conocarpus tree has proven its ability to withstand environmental factors in arid areas. This tree is characterized by rapid growth that exceeds many known tree species. In addition, Conocarpus tree is famous of its dark green leaves color throughout the year and withstand harsh environmental conditions such as high and low temperatures. Its growth is more revived in high summer temperatures and endured by low temperatures in winter as well as tolerance for all types of soil from sandy to clay. Conocarpus tree is grown from the coastal areas into the desert; it is highly resistant to salinity as it is propagated and produced by the peripheral bar with the use of a radical growth catalyst.

(Dr. Hani Zalzala Botany Specialist)

There are two types of Conocarpus tree, the Erectus from the swamps of South Florida and the Lancifolius from Somalia-Africa. The size of the Conocarpus tree Lancifolius appears at a height of 15 m and a width of approximately 12 m. They are fast growing in the summer and at high temperatures, while growing less and almost stop in the cold winter. But for the Erectus, it has slow growth. It has been noticed that in the Lancifolius, there is a direct relationship between the distances when planting and the thickness of the leg. Meaning that the greater the distance between Seedlings, the thicker the stem growth. Increasing the thickness of the trunk of the Conocarpus tree is also slow when applying periodic care and trimming. Its branches change from green to brown as they age. The speed of growth of Conocarpus is due to its resistance to UV radiation (UV-B Ultra Violet) 280-315. Also, these rays have a negative effect on the plant's functions such as their effect on DNA and protein in plant cells. The cells contain antioxidants that help the cell to preserve protein and prevent the entry of pollutants and viruses inside the cell. So it is noted that the cultivated Conocarpus plant in the road grows and is not affected by the gases emitted from the exhausts of cars. Moreover, the planted Conocarpus trees near the chimneys of oil refineries were not affected by gases and air pollutants.

Conocarpus is prevalent in all areas of Kuwait. It has both advantages and disadvantages on the country and that depends on its plantation and care. This paper will demonstrate both advantages and disadvantages of planting Conocarpus in Kuwait.

## Supporters:

Some people support planting the Conocarpus tree in our beloved country Kuwait. It has many advantages and uses.

## Advantages and Uses:

- There are many positive effects or advantages of Conocarpus tree planted in Kuwait. The Conocarpus tree is widely used in cosmetic agriculture projects and can be easily trimmed and formed, especially in the streets and highways. It is also used as a fence and windbreak in open desert areas and on farms. Because of the density of its branches and leaves; it is an effective factor to bring CO<sub>2</sub> back to the country and earth. Moreover, Conocarpus tree is a great source of abundant shade and a good cover of the noise. Also Conocarpus leaves are used as feed for livestock and turning their branches and stumps into charcoal. Based on the above Conocarpus is a useful tree and recommended to be planted in the country. The former Chairman of the General Authority for Agriculture and Fisheries Jassim Al-Bader had a contrary opinion on the Conocarpus tree indicating that many positive effects, including greening throughout the year and tolerance of high temperatures and resistance to wind and dust so that they can be used as windbreaks, as it does not cause allergies, and wooden logs are a good source for coal, its chemical extracts are considered

medicinal and therapeutic substances. When focusing on the advantages of Conocarpus tree in Kuwait, then the lovely image will be shown. Conocarpus is planted on both sides of roads and streets, giving a beautiful public view of the city and adds green color to its streets throughout the year. Conocarpus is used in open areas to protect the farms and residential areas from strong winds. Moreover, these trees are used for decoration by planting trees on the sides of public gardens, main roads, and entrances; where they are cute and formed into squares, pyramid shapes or any desired geometric shape that gives nice image to the country. In contract, the Director of Public Relations in the Public Authority for Agriculture Affairs and Fish Resources Shaker Awad noted that the roots of this tree does not penetrate the pipes unless they are improper, have cracks, or holes. According to the above the roots will be able to penetrate it, break it, or destroy it. But if the pipes are intact and undamaged, they will not be affected. It Is possible to make use of the plant to To make a veil and vegetation cover. Based on the above, planting Conocarpus is not a problem. It is a matter of planning correctly where and how to plant these trees.

## Opposites:

Others don't support planting the tree. While it may have many advantages and uses, it still has disadvantages.

## Disadvantages:

On the other hand Conocarpus tree has negative effects or disadvantages that could harm and damage the country. It is advisable not to plant Conocarpus trees near buildings because of the ravages of its radical water system, which may cause damage to infrastructure, water pipes, and drainage. The root system of the Conocarpus tree is a superficial and horizontal surface that is highly efficient to track the water source and take advantage of soil moisture. In addition, Conocarpus tree has soft root bristles that easily penetrate into the gaps of damaged pipelines of the infrastructure, which will increase the costs of fixing of rebuilding other pipelines. Based on that there should not be any pipes or channels close to where Conocarpus trees are planted. Head of Sanitary Engineering Engineer at the Ministry of Public Works Engineer Mahmoud Karam warned of the seriousness of the Conocarpus tree, which is widely used in many areas and streets of Kuwait, and its negative impact on infrastructure networks. He added that there is a plan to stop the cultivation of the Conocarpus tree and introducing alternatives. For example, olive trees those bear the hot weather in Kuwait and do not need large amounts of water. Adding, the lack of removing Conocarpus trees unless they turn out that they affect the infrastructure. Regarding

of the nature of the Conocarpus tree, Engineer Mahmoud Karam said "it was a hybrid plant of Clerodendron Inerme, which was used in the seventies and eighties with another plant. Then came out that plant which was crossed in Saudi Arabia and called the hellish tree" and point-led out that it is characterized by rapid growth and high distances, Warning of future penetration of fresh water pipes. The Environmental Affairs Committee of the Municipal Council recommended that the planting of the tree needs to be stopped in urban areas because of its damage to infrastructure. In this, the Rapporteur of the Committee Dr. Hassan Kamal said in a press statement that the tree has negative effects and damage to infrastructure such as sewage pipes, sewers and telephone lines. In Iraq, agricultural engineer Abdul-Hamid Mahdi, who introduced the tree to Al-Basra through Kuwait, said it is a well-suited tree for planting it in the middle of islands and establishing green belts around cities, but warned that it would damage homes if planted in cities. It is resistant to diseases where no diseases appeared on Conocarpus trees, but the appearance of a parasitic plant is noticed in the spring growing on and it is called Broomrapes "Orobanche" and it depends on other plants for food, some scientific sources have shown that there are some harmful sucking insects that feed on the leaves of the Conocarpus of its native country. Many of which creeping roots to the channels of sewage and leaves carrying bacteria and dust, which often cause many types of allergies, especially for Bodies that have sensitive skin is able



to attract those allergens. In summary, planting Conocarpus trees is not correct choice of plant to be planted in the country.

There are a lot of trees that are a successful alternative to the Conocarpus tree. For example, Dorinda is one of the trees that are suitable for the work of a fence and be green most of the year and suitable for the environment of the Gulf countries and Asia and graduated from the dense beautiful flowers. Another example is Moringa which is a miraculous tree with innumerable benefits and fast growing and using its leaves and stems and also its roots in the treatment of many diseases, but they are not dense and must be converged seedlings from each other to make a fence cover. One more example is Queen of the night or day, this tree is suitable for garden fence and has very fragrant flowers covering a large area and is one of the finest trees form and density. Any of the above alternatives can be used as replacement of Conocarpus trees.

## Solutions:

- ❖ Remove the tree from the roads and in front of houses
- ❖ Planting the tree in places where there are no pipes or canals nearby.
- ❖ Planting the tree far away from buildings and houses.
- ❖ Planting the tree in the desert.

## Conclusion:

The Head of Sanitary of Ministry of Public Works Engineer Mahmoud Karam warned health engineering engineers of the gravity of the Conocarpus tree to cause infrastructure destruction. The ability of its roots to penetrate the pipe and relaxes inside quickly, as what happened in some farms in Al- Abdali area.

Many questions have been opened by the decisions and statements of officials in the Public Authority for the Environment regarding permitting the removal of Conocarpus trees and replacing them with other types in residential, industrial areas, and government facilities without reviewing the Authority. However, the Article 41 of the Environmental Law prohibits the destruction of crops, plants, trees and reaping fruits in the fields, streets and public utilities. Official statements issued in 2014 and beyond confirmed that this tree has multiple benefits with an emphasis on not planting it alongside infrastructure networks. But it is clear that its presence in residential areas

and near the streets is proof of no previous planning of the Agriculture and Environment Authority on its seriousness. After reviewing the characteristics of the trees beneficial, its negative effects, the recommendations of the Environment Committee in the Municipal Council, the moves of the General Authority for Agriculture and Fisheries Affairs, it is now imperative, especially in light of the constant complaints of citizens and the constant fears of the unexpected results, that a committee be formed to study the positions of the tree and remove it immediately from the nearby places. Infrastructure, water and sewage systems, houses and fruit trees, replacing them with natural trees that have good impacts on the overall climate. From our point of view, we are against planting Conocarpus trees because there are many alternatives that are better and less harmful.

## References:

❖ Dr. Hani Zalzala

<https://kwagri.org/2016/06/16/-شجرة-الكونوك-اريس-فى-الكويت/>

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