

## **WATER-EFFICIENT IRRIGATION IN COTTON CULTIVATION APPLICATION OF TECHNOLOGIES**

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*Abstract: The article focuses on the current importance, efficiency and current conditions of water-saving irrigation technologies, as well as the conservation of water resources through the application of water-saving irrigation technologies to cotton. The article also discusses the development of cotton plants and irrigation standards. There are also reports of water shortages in the future due to the negative effects of climate change.*

*Keywords: resource, water, root, cotton, plant, subsidy, technology, evaporation, filtration.*

Many works are being carried out in the Republic on the sustainable development of agricultural production in the rain, improvement of land reclamation, increase their productivity, application of modern water-efficient irrigation technologies in irrigated areas, and a number of decisions can also be seen in order to create the necessary conditions: It is also included in the strategy of action on the five priority areas of development of the Republic of Uzbekistan in 2017-2021, approved by the decree of the president of the Republic of Uzbekistan No. 4947 of February 7, 2017. That is, the priority of the development and liberalization of the economy is highlighted in the Section 3.3 on modernization and accelerated development of Agriculture. The decree of the president of the Republic of Uzbekistan dated December 11, 2020 PQ - 4919 "on measures to more intensively organize the introduction of water – saving technologies in agriculture" was adopted. Thanks to the adoption of decisions and decrees from the sides of the president of the Republic of Uzbekistan Shavkat Mirziyoyev, we can see that all spheres are developing in our Republic. Due to the reforms carried out today, not only the development of all spheres in the Republic today, but also the foundation for the future conquest of high peaks in the bundan is being laid. The Acorn plant is considered to be an agricultural



plant that requires a lot of water. Referring to the Acorn plant: the hummingbird species and pictures of the world's Acorn are in the "gossipium" (Gossypium)-family, a family that lies in the seedbed of Malvaceae – (Acorns). The data indicate that the Acorn plant originates in tropical regions of the Earth, or in zones where the air temperature does not drop below +18 °C even in the coldest months of the year. The Acorn is mainly a tree simon perennial plant, in its native homeland it can be found in tree trunks that grow up to 10-12 meters tall under certain conditions of 6-7 meters in height and other natural shrubs from its cultural forms. Judging by the data, the composition of your cotton plant is made up of 33% grafted cotton (cotton raw materials), -22% leaves, 24% stems, 12% mosses and 9% roots. Hemp is considered to be the main expensive offshoot of the cotton plant. From cotton plants grown on farms, fibers are separated from the seeds using special techniques and machines. On average, 340-370 kg of fiber, 530-560 kg of pollen, 50-120 kg of pollen are obtained from one ton of grafted cotton. From a kilogram of wrinkled fiber, 5 meters of gauze or 140 wraps of yarn are produced, while other products are also obtained from the Acorn plant. In all regions of the Bukhara region, the Acorn plant is grown. Acorn plant in the conditions of the Bukhara region, which requires 6,200 - 6,500 m<sup>3</sup>/ha of water during the growing season. Due to the fact that the territory of the Bukhara region consists mainly of desert and chala desert, and evaporation is high, irrigation water in irrigated areas is being wasted mainly due to downstream factors such as evaporation, filtration, etc. The province is mainly dependent on land irrigation it is used in this method of irrigation the area is irrigated, not the agricultural crop, and as a result of this, the water given for irrigation is being used for evaporation as we mentioned before, as well as filtration in addition to the salinity of soils prone to shrinkage due to the evaporation of irrigation water is arising. In order to prevent future water shortages, as well as for higher crop yields, water-efficient irrigation technologies are used in the cultivation of acorns: in drip irrigation (the amount of water supply to the field is reduced to 35-55%); If 1 is applied in the irrigated area of the region, the traditional method requires 6200 m<sup>3</sup> / ha of the Acorn water if the drip irrigation technology is applied at least 35% of the water is economical then  $6200 \times 35 = 2170$  during the growing season so 2170 m<sup>3</sup> the water resources are economical so that together with the high yield of the plant. If drip when the irrigation method is used, not only water resources but also labor, fuel lubrication products, mineral fertilizers and other resources supplied to the crop are economical along with water resources at the same time the land use coefficients increase.



Conclusion: water resources are economical if water-saving irrigation systems are used in irrigated areas and as a result of this, it will be possible to redirect the economy water resources to other areas, there will be an opportunity to develop additional irrigated areas. As a result of the development of additional irrigated areas, it is possible to avoid food shortages that may arise in the future. For this reason, today the use of water-saving technologies is greatly emphasized by our state and at the same time how many opportunities are being created.

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