



DEVELOPMENT OF IRRIGATION PROCEDURE USING DRIP IRRIGATION TECHNOLOGY OF BUKHARA-102 COTTON VARIETY

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Abstract. In the article, in the field of meadow alluvial soil of Bukhara region, the level of seepage water is 1.5-2.0 m, when drip irrigation was used in the experimental field where cotton was planted, when the moisture content of the soil before irrigation was 70-80-65% compared to ChDNS, cotton was irrigated 9 times in total. The article presents the effects of drip irrigation on the growth, development and productivity of cotton and the results of experiments conducted to study this irrigation technology.

Key words and phrases: Soils with different mechanical composition, reclamation conditions, irrigated lands; drip irrigation, agrotechnical measures, elements of irrigation techniques, distribution pipes, water consumption, salinity, cotton, cotton yield, irrigation standards, marginal field moisture capacity (ChDNS), seepage water level, mineral fertilizers, vegetation period.

In recent years, special attention has been paid to the introduction of water-saving technologies in the cultivation of agricultural crops in our republic. As a result of the State supporting the introduction of these technologies, the areas where water-saving technologies are introduced are increasing year by year.

However, the total area where water-saving irrigation technologies are used is 291.2 thousand hectares or 7% of the total irrigated land area, which necessitates

the need to further activate measures aimed at expanding the use of water-saving technologies in agriculture and ensuring the efficiency of water resources use.

It is an object of scientific research, the saline soils of the Bukhara region with different mechanical composition, the "Bukhara-102" variety of cotton, and the elements of the irrigation technique of drip irrigation technology in the cultivation of cotton.

The purpose of the research is to determine the elements of optimal irrigation techniques for drip irrigation of the Bukhara-102 variety of cotton in the conditions of saline soils of the Bukhara region with different mechanical composition, to evaluate their effect on the growth, development and yield of cotton and the quality indicators of cotton fiber, and to determine the effect of drip irrigation on the reclamation regime of irrigated lands. .Тадқиқотнинг вазифалари:

During the years of research:

- the level of salinity of regional soils, the level and mineralization of seepage water, the amount of water taken for irrigation and salt washing, and the water resources used in the traditional irrigation of cotton are studied;

- in the region, the method of irrigation used in the traditional irrigation of the Bukhara-102 variety of cotton on soils with different mechanical composition is studied;

- in the region's soils prone to salinity, with light, medium and heavy mechanical composition, an optimal irrigation method of the Bukhara-102 variety of cotton will be developed;

Ways of doing work: Methods of performing work: "Methods of conducting field experiments", agrophysical and agrochemical analysis of soil " Methods of agrochemical analyzes of soils and plants in Central Asia", "Methods of conducting field experiments", economic efficiency is determined based on the methods of N.A. Baranov

Obtained results: in the conditions of saline soils of the Bukhara region, with different mechanical composition, the method of scientifically based drip irrigation of the Bukhara-102 variety of cotton was studied, the elements of the irrigation technique: the water consumption of the dropper, the optimal indicators of the distances between the drippers and between the irrigation pipes were determined, and they were applied to the reclamation regime of the irrigated lands. , the effect on the growth, development and productivity of cotton was determined:

- in the conditions of light loamy soils, the seed is sown 60 cm between the rows, before watering the cotton, keeping the soil moisture at 70-80-65% relative to ChDNS, watering 9 times during the season with irrigation norms of 384-415 m³/ha, in which case elements of irrigation technique: the water consumption of the dropper is 2 l/hour, the distance between the drippers is 25 cm, and when the irrigation pipes are installed on each edge (a=0.6 m), favorable conditions are created for the growth of cotton, and 45.4-46.2 ts/ha from cotton harvest was achieved.



Figure 1. A view of the experimental field with drip irrigation

Conclusion. The following conclusion was reached based on the study of the scientifically based irrigation method of cotton drip irrigation technology in alluvial soils of the Khorezm oasis, which has been irrigated since ancient times:

When cotton is planted 60 cm between rows in conditions of light loamy soils and drip irrigation technology is introduced, the water consumption of the dripper is 2 l/h, the distance between the drippers is 25 cm, and the distance between the irrigation pipes is 60 cm, the rate of irrigation is 384-415 m³/ha with 384-415

m³/ha, when irrigated 9 times per season, favorable conditions were created for the growth and development of cotton, and the yield of cotton was 45.4-46.2 tons/ha.

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