

**PRACTICAL SIGNIFICANCE OF COTTON CULTIVATION IN JIZZAKH REGION**

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**Annotation:** *This article presents the information shared by the authors with a scientific conclusion. The purpose of the research is to determine the possibilities of planting cotton in the first three years after plowing in alfalfa rotation in slightly saline gray meadow soils of Jizzakh region.*

**Key words:** *cotton, alfalfa, crop rotation, soil fertility, improvement of saline lands, importance in national economy.*

**“When exploring standard techniques, concepts and terms, the researcher must pay special attention to yet unknown, undescribed phenomena or new combinations and aspects of known phenomena, approach the soil precisely as an object of research, showing scientific ingenuity. Science is always creativity even in the smallest things”.**

**B.G.Rozanov**

Favorable soil and climatic conditions in Uzbekistan make it possible to successfully cultivate cotton. Until recent years, the main areas of irrigated land were allocated to cotton; the struggle to increase the volume of raw cotton led to the fact that cotton production in the republic increased to 70 percent or more, as a result of which crop rotation was not observed and the monoculture of cotton flourished, which had a detrimental effect on soil fertility. The development of new lands and their allocation mainly for cotton crops led to almost complete regulation of the flows of the Syr Darya and Amu Darya rivers, which resulted in the shallowing of the Aral Sea and became the cause of an environmental disaster. The acquisition of sovereignty and independence by Uzbekistan necessitated a radical transformation of the agrarian policy of the republic and a sharp change in the structure of sown areas, freeing up a certain part of the lands of the cotton complex for grain, vegetable and melon crops, orchards, vineyards, household plots and other needs of paramount importance. Despite this,

Uzbekistan remains and will in the future be one of the major cotton producers.

In this regard, it is of great importance to increase the yield of cotton and the gross harvest of raw cotton through the introduction of new high-yielding, early-ripening, wilt-resistant varieties, carrying out a wide range of reclamation work, introducing promising crop rotations, developing new technologies and individual agricultural practices based on comprehensive chemicalization and intensification of production. This is a very important task for the republic's specialists, and science plays a huge role in solving it. The existing system of irrigated agriculture urgently requires the introduction of such agricultural practices that would contribute not only to an increase in crop yields, but to a reduction in material and technical costs for their production while maintaining and increasing soil fertility. It is no secret that the technology for cultivating cotton on a smooth field does not fully meet the requirements based on the theoretical foundations of soil cultivation. The new technology for cultivating cotton along ridges and ridges, developed in recent years, has found wide recognition and received well-deserved appreciation from specialists and agricultural workers, which is repeatedly mentioned in the works of S.N. Ryzhova, V.P. Kondratyuk, A.K. Kashkarova, A.A. Rakhimbaeva,

Yu.A. Pogosov and many other researchers. Using extensive experimental material, scientists have proven the advantages of this technology compared to smooth field technology[1].

When cultivating cotton on ridges and ridges, a significant part of the pre-sowing work is carried out in advance, which makes it possible to speed up the sowing of cotton; in capricious weather conditions in spring, it is possible to avoid waterlogging of the surface layer of the soil, increase its warming up and thereby create an optimum for obtaining full-fledged shoots, and in dry years moisture-recharging or replenishing irrigation can be carried out without additional costs for cutting furrows and subsequent treatments. In general, the thickness of the arable soil layer increases significantly and the optimal density of the soil is maintained almost until the end of the growing season, which naturally has a positive effect on water-physical properties, the activity of microorganisms is activated, the supply of nutrients to plants is improved and, ultimately, a high increase in cotton yield is achieved - raw compared to sowing on a smooth field. However, in a number of soil and climatic conditions, this technology has not passed scientific testing and there is almost no experimental data on its use in the first three years after plowing three-year-old alfalfa in cotton crop rotation.

The lack of data on the use of raised bed sowing of cotton in the conditions of weakly and moderately saline soils in the Jizzakh region was the reason for conducting this research. The purpose of the research is to identify the possibility of using ridge sowing of cotton on slightly saline gray-meadow soils of the Jizzakh region in the first three years after plowing alfalfa in the crop rotation[2].

-Establish rational timing for making combs and the method of sowing cotton in a given region.

-The objectives of the research included:

-Based on existing recommendations, create ridges 28-30 cm high along the layer, the layer turnover and in the third year after plowing three-year-old alfalfa;

- Determine the most optimal timing for cutting ridges, taking into account the need for leaching irrigation;

-Determine the feasibility of sowing cotton at the top of the ridge or removing 1/3 of the ridge;

-Using the latest technology to create conditions for maximum preservation of optimal agrophysical properties of the soil throughout the entire cotton growing season; To study the influence of the applied agricultural practices on the emergence, growth, development and productivity of cotton, as well as the quality of raw cotton;

-Give an economic assessment of the most effective methods of ridge technology for cultivating cotton;

-Develop and scientifically substantiate recommendations for ridge sowing of cotton on slightly saline gray-meadow soils of the Jizzakh region in the cotton-alfalfa crop rotation system. Theoretical significance and novelty of the research. For the first time, the possibility of using ridge technology for cultivating cotton on slightly saline gray-meadow soils of the Jizzakh region was revealed for the first time three years after plowing alfalfa in a crop rotation field

Favorable soil and climatic conditions of Uzbekistan served as the basis for the development of cotton growing in the republic. Over the past decades, unprecedentedly high growth rates of cotton yields and gross production of raw cotton have created all the prerequisites for the priority of the industry. If in 1934 the average cotton yield in Uzbekistan was 7.8 c/ha, then in 1980 it increased more than 4 times and amounted to 33.2 c/ha. It is not difficult to imagine that the meager yield of cotton was based on manual labor, continuous sowing and flood irrigation, a complete absence

of mineral fertilizers, chemicals and even the simplest set of tools and machines for basic soil cultivation and care of cotton.

The economic development of the republic is associated with the development of the industrial complex of the union republics and Uzbekistan in particular. The priority development of heavy industry and, on its basis, such industries as mechanical engineering, tractor manufacturing, chemical and processing industries contributed to the rapid growth of the power supply of agricultural production, its comprehensive mechanization and chemicalization.

Domestic science plays a huge role in increasing cotton productivity, and today it is in the most advanced positions. Naturally, today no one is satisfied with the existing technologies for the production of cotton and other agricultural products.

The establishment of independence of Uzbekistan requires a radical revision of the structure of sown areas and giving them the main status - of course, the maximum provision of the internal needs of the republic.

Adhering to this requirement, part of the area of the cotton complex was allocated for grain, vegetables, melons, fodder crops and other social needs of workers. However, the reduction in the area under cotton should in no way affect the decline in raw cotton production since Uzbekistan was, is and will be one of the main cotton producing countries[3].

It is in these created conditions that the issue of developing highly efficient technologies for the production of raw cotton, ensuring maximum mechanization of production, reduction of manual labor and, with a general reduction in material and monetary costs for production, to obtain high and sustainable crop yields in any soil and climatic conditions, arises more urgently than ever. , while special attention should be paid to maintaining the ecological cleanliness of the environment and maximum preservation and even improvement of soil fertility, and their theoretical characteristics justify all basic farming techniques.

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