# SOIL AND CLIMATIC CONDITIONS IN THE CARE OF FINE-FIBER COTTON VARIETIES

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## ABSTRACT

According to the information presented in this article, it has been established that in the conditions of infertile soils located in the lower part of the Kashkadarya region, it is possible to grow cotton varieties with fine fibers, and it is possible to obtain a cotton yield of 38-45 tons per hectare

**Keywords**: fertile, fiber, cotton, stable, early ripening

# INGICHKA TOLALI G‘O‘ZA NAVLARINI PARVARISHLASHDA TUPROQ-IQLIM SHAROITLARI

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## ANNOTATSIYA

Ushbu maqolada keltirilgan ma’lumotlarda keltirilishicha, Qashqadaryo viloyatining quyi qismida joylashgan taqirsimon tuproqlari sharoitida ingichka tolali g‘o‘za navlarini parvarishlash imkoni mavjudligi bilan bir qatorda gektaridan 3,8-4,5 tonnagacha paxta hosili olish mumkinligi aniqlandi

**Kalit so‘zlar**: serhosil, tola, g‘o‘za, chidamli, tezpishar,

## INTRODUCTION

As a result of the global climate changes taking place in the countries of the world, various harmful insects and diseases that harm the plant world are on the rise. In response to these uncontrollable phenomena of nature, we need to pay great attention to increasing the durability and flexibility of agricultural crops.

In the field of cotton alone, the fact that in the Kashkadarya region, especially in the districts of the steppe regions of the region, in the following years, there is a sharp warming of the air in the summer months, complete depletion of the crop in the middle half of the plant due to the influx of hot air, negatively affects the yield of acorns.

Based on natural climatic conditions, it is considered necessary to develop a new created, promising thin-fiber Acorn variety breeding Agrotechnology in increasing productivity, following the placement of thin-fiber Acorn varieties in parts of Karshi, Karshi, Mirishkor, Mubarak districts, Nishan and Koson districts, which are included in the desert sub-regions of the Kashkadarya region from 2020.

Today, the growing demand for fiber from new and promising thin-fiber Acorn varieties, which are at the forefront of the world in terms of fiber quality created by our selectionist scientists, and the growing of thin-fiber Acorn fields every year, indicate the need to develop an agrotadbir system at a speed.

The effective temperature in Cairo, the capital of Egypt, where climatic conditions are considered very favorable in the cultivation of thin – fiber Acorns, is 3281os, in Alexandria-3030os, in Sherabad-3357os, in Termez-2924os, in opposition-2812os. It follows that the introduction of thin-fiber varieties of acorns into regions with extremely hot climates, as well as the implementation of a system of agrotechnologies suitable for them, will focus on the solution of the above problems. The featheriness of the stem of thin-fiber Acorn varieties, the thickness of the leaves and other properties increase their tolerance to pests.

The sum of the annual effective temperature in these varieties should not be less than 2100-2200 oS. The Qarshi desert in kashkadarya region has favorable climatic conditions for the cultivation of fine fiber cotton. The cultivation of thin-fiber Acorn varieties in the region began in 1969 and then began to be planted on an area of 62 thousand hectares. It has been proven that from thin fiber Acorn varieties, 40-45 centners to 48 centners were obtained, judging by the data obtained on the basis of the results of scientific research work and production tests. Therefore, in the context of global climate change, it is considered necessary to develop an optimal care Agrotechnology of thin-fiber Acorn varieties.

With a slight approach to the solution to the above problems, since 2018, Scientific Research has been carried out on the care of thin-fiber Acorn varieties in the conditions of taut soils of the region.

The humus content of the taut soils of the kashkadarya region is from 0.5% to 1.0%, with potassium up to 2.0% and phosphorus up to 0.15%, and nitrogen content 0.02-0.07%. The climate is sharply variable Continental and at the same time has hot summers and much colder winters. In winter, the northern Arctic receives cold air currents, greatly lowering the temperature. In January, the average air temperature can drop from 0°c to +2°C, in winter sometimes from -15°C to -25°C. The summers are hot and dry and last long. In July, temperatures occasionally rise from +44°C to +47°C during daylight hours.

In the 2019 season, when weather conditions were analyzed by month in Kashkadarya region, the air temperature was higher in January compared to other years, averaging 7.2 0S, in February 6.2 0s, in March 12.8 0s, in April 16.7 0s, in may 23.9 0s, in June 27.3 0s, in July 33.4 0s, in August 28.3 0s, and in September 22.0 0s.

When annual precipitation amounts were studied in 2018, where the majority of precipitation was observed from November to may, precipitation was barely observed during the summer months. But the amount of fat was observed to be almost three times lower than the November 2016 figure and 2 times lower than the multi-year average. The January fat content was found to be 8.2 mm, 6.4 times lower than the 2017 figure and 4.4 times lower than the average perennial figure. The amount of precipitation in February was 31.4 mm, equal to the average perennial figure, and was observed to be 2.8 times less than the 2017 figure.

When the amount of precipitation was analyzed in 2019, there was no precipitation in January, 39.7 mm in February, 67.2 mm in March, 27.7 in April, 75.5 mm in may, 32.9 mm in June, 16.0 mm in June, and 0.3 mm in July and August, with the most precipitation in April.

This created some difficulties in the germination of the seeds due to the fact that they coincided with the moment of planting the same seeds.
In 2019, the useful temperature was 42 0S in April, 147 0s in may, 519 0s in June, and 687 0s in July with the most temperature absorbed.
According to the morphological structure of the experimental field soil under research, the soil in the upper layers is fertile, granular, and plant residues, seeds and roots are common. In particular, the 96-130 cm layer of the soil is a white-yellow sandy fertile soil, a layer of 130-160 CM is a red mixture, a Brown, a soil with white spots, a layer of 160-180 CM is a sandy,light-colored soil, a layer of 180-230 CM is composed of clean, hand-tightened soils. Analysis of the mechanical composition of soil by genetic stratification found that field-field soils were of medium-loamy, partially heavy, and light-loamy mechanical composition. It is known that Taiga and Taiga soils are considered prone to salinity. But, in an attempt to determine the salinity of these soils and many other soil properties, water absorption analysis was carried out in genetic layers, and the experiment determined the amounts of anion, cation, dry residue, total salt in the dalasi soil, and showed that the soil was weakly saline.
To date, agrotechnical measures (plowing, fertilizing, watering, etc.) used in agricultural crops in each region being irrigated affect the structure of the soil in different ways, causing its food elements to change. According to the initial agrochemical analysis of the experimental field, humus content in the 0-30 CM soil plowing layer was 0.683%, gross nitrogen 0.064%, gross phosphorus 0.105%, humus content in the 30-50 cm under-plowing layer was 0.491%, gross nitrogen 0.048%, and gross phosphorus 0.078%. In the 0-30 CM drive layer of soil, the motile nitrogen content was 15.78 mg/kg, the motile phosphorus was 26.5 mg/kg, the alternating potassium was 207.0 mg/kg, in the 30-50 cm drive layer, the motile nitrogen was 4.32 mg/kg, the motile phosphorus was 21.9 mg/kg, and the alternating potassium was 187.0 mg/kg.
It can be concluded from this that the soil of the experimental field is known to be low in humus, very low in the mobile forms of nitrogen and phosphorus, and with potassium, the plowing of the soil is moderate in the 0-30 cm layer, and in the 30-50 cm under-plowing layer of the soil, it is known
The volume weight of the experimental field soil is. One of the most important agroomils for the production of a quality and abundant cotton crop will be directly related to the agrophysical and microbiological properties of the natural state of the soil under cultivation. Soil volume weight is of great importance for the normative growth and development of the plant. The value of the volume mass of the soil will depend on its porosity, the weight of the solid, the amount of organic matter it contains, soil salinity and other factors. It is noted that on well-grained soils, the yield will be higher only in the optimal state of volume mass. During our studies, one of the reasons for the study of soil agrophysic properties is to know the effect of Applied Water-Food norms-proportions on the soil and draw conclusions about whether it is positive or negative.
The ratio of the weight of a certain volume of pure dry soil stored naturally to such a volume is called the volume mass of the soil and is expressed in units of g/cm3, t/m3. The effect of soil volume mass on the growth, development, harvest and yield of ziroates entering the acorn and Acorn complex has been studied in many R & D studies. They have been found to have optimal density units of 1.1-1.3 g/cm3 for the Boz soil region, 1.1-1.4 g/cm3 for the newly acquired soils

of the Sahara region, and an average critical unit of density of 1.5 g/cm3 for the three regions. In the field of the experiment, the volume mass indicator of the soil at the beginning of the amal period was 1.30 g/cm3 at 0-30 CM, 1.35 g/cm3 at 0-50 CM, 1.36 g/cm3 at 0-70 CM, and 1.36 g/cm3 at 0-100 CM. At the end of the period of action, it received 65-65-60% irrigation compared to Chdns the volume mass indicator of the soil in soil moisture was 1.38 g/cm3 at 0-30 CM, 1.40 g/cm3 at 0-50 CM, 1.41 g/cm3 at 0-70 CM, and 1.40 g/cm3 at 0-100 CM. Compared to chdns received 70-75-65% irrigation volume mass indicator of soil in soil moisture was 1.39 g/cm3 at 0-30 CM, 1.41 g/cm3 at 0-50 CM, 1.43 g/cm3 at 0-70 CM, and 1.41 g/cm3 at 0-100 CM. These analyses showed that with increasing irrigation procedures, the volume mass indicators of the soil were found to increase. It was found that at the end of the amal period, at the end of the amal period, 65-65-60% watering was obtained in layers 0-70.0-100 cm, respectively, compared to Chdns at the beginning of the Amal period, 0.04-0.05 g/cm3 in soil moisture, and 0.05-0.06 g/cm3 in the moisture order of 70-75-65%. With the increase in the number of irrigations, the law of increasing the volume mass of the soil was observed.
Water permeability of experimental dalasi soil. In agriculture, the water, air, thermal conductivity, volume mass, ability to retain moisture, granularity of the field soil are important physical properties that determine its fertility. If these indicators are at an acceptable level, its water permeability will also be in an optimal state.
The water permeability of the soil depends on the type-type, mechanical composition of the soil, and the mechanical composition is higher in water permeability in light soils, and the mechanical composition is less permeability in heavy soils. The better the water permeability, the water does not stand on the surface of the soil, the more water is completely absorbed, the more water is absorbed into the soil, the more water is spent on satisfying the plant's demand. The Amal period was 398.8 m3/GA in the 1st hour of the boshidakuzatuv, 144.3 m3/GA in the 2nd hour, 92.9 m3/ga in the 3rd hour, 86.6 m3/ga in the 4th hour, 81.5 m3/GA in the 5th hour, 79.8 m3/GA in the 6th hour. The total was 883.9 m3/ha in 6 hours and an average of 147.3 m3/ha in 1 hour. At the end of the period of operation, the water permeability of the soil received 65-65-60% irrigation compared to Chdns in total at soil moisture 6 hours to 653.9 m3/, on average 1 hour to 109.0 m3/, compared to Chdns received 70-75-65% irrigation while in total soil moisture the amount of water absorbed in 6 hours was 633.8 m3/, on average 1 hour to 105.6 m3/. Water permeability indicators for a total of 6 hours were shown to have decreased by 230 m3/in soil moisture, and by 250.1 m3/in moisture order of 70-75-65%, compared to Chdns at the end of the period of action.
From the above data, it can be concluded that it is possible to obtain a cotton crop of up to 38-45 centners per hectare, in addition to the fact that it is possible to care for thin-fiber Acorn varieties in the conditions of Taiga soils located in the lower part of the Kashkadarya region.

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