

THE IMPORTANCE OF TECHNIQUE IN PRODUCING HIGH-YIELD AND QUALITY FIBER FROM COTTON VARIETIES

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Annotation: Fine-fiber cotton varieties differ from medium-fiber cotton varieties in terms of high fiber type, softness, fiber length, fiber hardness, relatively low fiber yield, and high relative breaking strength. Fine cotton fiber is a unique fiber, and special numbers (200, 170, 150, etc.) are made. Unique fine fabrics are made from the fiber of fine-fiber cotton varieties. The fiber of fine fiber cotton varieties cannot be replaced by any natural or artificial fibers.

Keywords: Variety, fiber quality, fall plowing, field preparation for planting, field leveling, seeding etc.

There is a 14-15% demand for fine fiber cotton fiber worldwide, the fiber of fine fiber cotton varieties is unique, elegant, and the most valuable fiber. grown in the southern regions. The fiber of fine-fiber cotton varieties is widely used in the textile industry, aviation, automobile, shipbuilding, and satellite industries.

According to the decision of the President of the Republic of March 18, 2022 No. PQ-170 on increasing the area of fine fiber cotton varieties in Uzbekistan and creating new varieties, the Scientific Research Institute of Fine Fiber Cotton was established in Surkhandarya region.

In the region, this year, varieties of thin fiber cotton, Surkhan-14, Termiz-202, Termiz-208 and SP-1607, were planted on 18 thousand hectares, and for the harvest of 2024, a plan was made to accumulate seed reserves and plant them on 45 thousand hectares in the southern regions of the Republic.

The scientists of our country and foreign countries are carrying out excellent scientific and research work in the Arab Republic of Egypt, Turkmenistan, Tajikistan, and Uzbekistan on the creation of varieties that meet the requirements of international standards of high-yielding, fast-growing, fiber quality of thin-fiber cotton.

Abdullaev A.A., Omilchenko M.V. (1969) emphasized the importance of interspecific hybridization in the creation of new varieties. Amanov B.Kh., Ernazarova Z.A., Nabieva N.T. who determined the heritability of fiber length (1, 2).

Iksanov M.I. (2006) who stated that the quality indicators of new lines and varieties of fine fiber cotton, microneedle, fiber length, fiber softness and fiber hardness are considered to be the most important indicators (3).

O.T.Alimardanov, B.Ch.Zhoraev, N.N.Ochildiev, A.B.Donaboev (2022) The importance of technique in the care of thin-fiber varieties (4).

Research methods. The results obtained during the research were used in the variational statistical analysis of digital indicators using the method presented in B.A.Dospekhov (1985). The degree of dominance was calculated according to the S.Wright formula presented in the work of Abdul Jamil Hassan Muhammad Al Harani (1983). Fiber quality indicators were determined using the Spinlab HVI system in the "Sifat" laboratory.

The research was conducted in the experimental fields of the Fine Fiber Cotton Research Institute, in the Kyziriq and Angor cluster fields (in 2018-2022). The results of the study are presented in the table.

All cotton farming experiments are done using agricultural tools and machinery.

Table 1. Plowing periods, methods of leveling, seeding and pre-sowing water in preparing the field for planting and advantages of conventional seeding (data for 2018-2022)

№	Indicator name	Periods of plowing the field			Field leveling methods		Methods of preparing the field for planting		Methods of planting seeds	
		October	November	December	The usual	Using a laser	The usual	Watering before planting	The usual	Planting on a bush
1	Plant height, cm	90-100,0	85-90,0	75-80,6	85-90,0	90-105,0	85,90,0	90-105,0	80-90,0	90-110,0
2	The number of pods per plant, pcs	10-12,0	9-13,0	8-11,0	10-11,0	12-14,5	11-12,0	12-14,0	11-12,0	12,0-14,5
3	Cotton yield, ts/ha	35,0-40,0	30,0-34,0	27,0-30,0	30,0-35,0	35,0-40,0	28,0-35,0	34,0-41,0	32,0-33,0	37,0-39,5

The results of the experiment (presented in the table).

Production experiments in the first table were conducted in Kyziriq district (2021-2022), Termiz district (2022), Angor district (2018-2019). It is known from experience that plowing the best period is October, the length of SP-1607 and Termiz-202 varieties of fine-fiber cotton when planted in the plowed field in October is 90-100 cm, the number of bolls collected per plant is 10-14 grain, cotton yield 35.0-40.0 ts/ha, it was found that the field plowed in November, especially in December, compared to the field treated with cotton, all indicators were 15-20% higher. The best period between plowing periods is October and the relatively late (December) period. It has been fully proven by experience that the saying that if you drive land, drive autumn, and if you don't drive autumn, drive hundred, it is very true. It has been proven that the field plowed in October yields more than the field sown in the third decade of March, the field plowed in November by 4-5 t/ha, and the field plowed in December 7-10 t/ha. The land is plowed with the help of PD-4-45, PNYa-4+1-45, PN-4-45, PLN-5-35 and LD-100, M-R65 and Europa-7 plows with barren, heavy mechanical soil at a depth of 40-45 , plowing soils with a medium mechanical content 35-40 cm and light sandy soils 25-30 cm deep, using two-layer plows to plow the weeds 0-20, 20-40 cm deep plowing, if plowing is carried out at a depth of 8-10 cm before plowing, it will dry in 8-10 days, alfalfa and weeds will not germinate in spring. Then it is recommended to plow at a depth of 40 cm. Plowing of barren fields with heavy mechanical content every 3-4 years to a depth of 50-60 cm has been proven to be effective. Deep plowing reduces weeds, cotton roots develop well, and cotton yield is 4-5.0 t/ha. The importance of leveling the field in growing a higher quality cotton crop than cotton is immeasurable.

Advantages of laser level alignment:

- water used for irrigation is saved by 20-25%;
- reduction of soil salinity is achieved;

- watering time, manpower, energy consumption are reduced;
- crops germinate evenly and develop evenly;
- crops are provided with the same moisture and nutrients;
- wheat-cotton yield increases by 4-7 ts per hectare;
- the income of farmers and clusters will increase.

P-2,8A and P-4A suspension and laser devices are widely used in field leveling.

According to our experience, when the land is leveled in the usual way, the plant height is 85-90.0 cm, the number of pods per plant is on average 10-11, while the plant height is 90-105.0 cm, and the number of pods per plant is 12-14 on average. ,5 units and cotton yield was observed to be 35-40,0 tons/ha. Leveling the field using a laser device is a cost-effective technology in cotton farming. Time saves water and fertilizer.

The methods of preparing the field for planting are conventional and pre-planting irrigation, pre-planting irrigation, full, early seedling collection and plant growth, development and yield were observed to be much higher than the conventional method.

In addition to single-row and double-row seeding methods, weeds are reduced by 70-80%, sprouts germinate 2-3 days earlier, the full number of stems is obtained, and the crops develop intensively. In our experiment, it was found that when the plant height is 90-110 cm, 12-14.0 bolls per boll and 5-6.0 t/ha of cotton can be grown compared to the usual method.

In short, in the maintenance of thin fiber cotton varieties, plowing the land, leveling the land, preparing the field for planting, and carrying out the methods of sowing seeds in a timely and high-quality manner, it has been fully proven that the role of technology in growing a high-quality crop is incomparable.

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