

History of Agricultural Technology of Fine Fiber Cotton in Surkhan Oasis

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Abstract:

In this article, due to the narrow interests of the Soviet government in the development of cotton production in Uzbekistan, the cultivation of thin-fiber cotton varieties necessary for industry, most importantly for strengthening military defense, and the creation of its productive varieties suitable for the region are expressed in the article.

Keywords: Cotton monopoly, Soviet, fine fiber, test, research, "winter", afghan, garmsel, channel, irrigated, textile, seed, quintal, selection.

In order to develop the cotton monopoly, the Soviet authorities also carried out important practical work on planting cotton varieties suitable for the region. Paying particular attention to the work of creating fine fiber cotton varieties, which are considered important for industry. Scientific research institutes were established for allocating the necessary funds for these works and breeding heat-resistant varieties. Experienced scientists and agronomists were also involved in this scientific research work. The scientific research of MSIshtomin, who made a special contribution to the creation of thin-fiber cotton varieties in the Surkhan oasis, is of great importance, thanks to his services, thin-fiber cotton varieties were created and tested. Specific natural conditions were determined, and the sum of temperatures in this area was 6,000 degrees (degrees), which was distinguished by the presence of a sum of temperatures that had a positive effect on cotton of about 3,200 degrees. As a result of the conducted research, the annual number of days with average daily temperature is 261 days above 10 (degrees), 44 days above 5 (degrees), and there is not a single day below zero. The amount of cloudless days and sunny hours is greater here than in the United Arab Republic, and from the beginning of the opening of the first pods to the fall of autumn frosts, there is another 120 days of warm time, during which time all the pods are ready to open. The temperature conditions of May and September are the same; There is no such thing as "winter", the

minimum average daily heat temperature does not fall below plus two degrees (degrees) throughout the winter . Precipitation is very low . In Sherabad and Termiz, they do not exceed 150 millimeters during the year, including 90 millimeters from December to May. The relative humidity of the air is very low , and it is not found in any region of Central Asia where cotton is grown; in 200 days of a year, the relative air humidity is less than 30 percent, and in the summer months it decreases to 18-20 percent, the relative humidity of the Garmsel (Afghan) air blowing from the southwest is 13-16 percent.¹

MSIstomin took into account these special conditions of the climate of the Sherabad steppe or the southern part of the Surkhan-Sherabad valley in agrotechnical methods . despite the fact that it is very little used, he conducted research on soil composition to create new cotton fields. Every year, 2.5 billion cubic meters of water are diverted through the Surkhan river in vain, although this rich country could be revitalized with this water . It was only in 1966 that water was supplied to Kyziriq Dara steppe for the first time through the Sherabod pumping station . The Zang Canal has now been completely reconstructed and carries 86 cubic meters per second, or 5 times its capacity at the time of construction. All the works and objects performed in the South Surkhan reservoir complex were accepted with good debate. As a result, there is enough water for irrigation in the south of the region at any time of the year. It is time to critically review the agrotechnical methods created (illustrated) over the centuries to adapt to water-scarce conditions . Because now it's time to use the material-technical and natural-climatic conditions of this flourishing valley more fully. After the completion of irrigation and melioration works, the amount of irrigated land in the south of the region was increased to 180 thousand hectares, or much more than the land in all regions of the region. Thanks to the works carried out in the agricultural sector, more than 90 percent of the irrigated lands are irrigated with water collected in artificial reservoirs. When lands are irrigated from natural water sources, a lot of turbidity flows into them along with the water. These muds are one of the factors that preserve and restore the natural fertility of the land.²

Thanks to the services provided by MSIstomin, the works carried out in Uzbekistan on cotton , especially on thin fiber cotton, were realized in very difficult conditions, and the developing textile industry of the Soviet Union needed high quality cotton for making high-quality and ready-made gazmols. At the same time, the work of growing fine fiber cotton, which required type fibers, was done with a very new challenge. In the first years, on the basis of the test, the thin-fiber cotton seed is planted in what climatic conditions; it was not known how it would react to water, fertilizer, density between cotton bushes, high temperatures, air humidity, etc. , and when the cotton would ripen. For this purpose, imported Egyptian cotton seed (as this type of cotton was called at that time) was planted in all cotton-growing areas of the USSR, with the aim of determining the most optimal climatic conditions for this type of cotton. Most hard work, the seed with thin bristles was pressed into the ground by hand. Because there was very little seed, they were sometimes even transplanted. At the same time, there were very few seed drills at that time.

¹ State archive of Surkhondarya region. Fund-48, opis Surkhondarya VDA, 19 fund, list 1, case 45, sheet 6.

² Surkhondarya VDA, fund 18, list 1, case 133, sheet 34.

In the early stages of the study of this type of cotton, the cultivated area in hectares was as follows.

	1928	1929	1930	1931	1932	1933
Uzbekistan SSR	-	5	205	940	5,490	9,075
Turkmenistan SSR	33	108	1,013	5,185	14,779	17,623
Tajikistan SSR	-	25	3,532	14,227	21,524	23,041
Azerbaijan SSR	1	2	40	892	8,435	26,005
Total for the USSR	34	140	4,790	21,244	50,228	76,344

Such research planting of Uzbekistan almost all cotton cultivated in the regions, that's it including Tashkent , Piskent , Yangiyo'l , Mirzacho'l in the regions of Farg'ana valley , Samarkand , Bukhara , Kashkadarya and Surkhondaryo regions all in the districts were held .³

Turkmenistan and in Tajikistan too all in the regions , that's it including the most northern district calculated Ho ' jand and Conibodom in the districts also , Nakhichevan Autonomous in SSR too planted , each different of varieties clans (Pima , Sakel , Ashmuni , Ramseller , Affifi , Maarad) times foreign from countries cited , however their all too evening become , grow 150-170 days of the period to be Demand reached USSR of cotton farming all climatic conditions such research of planting wide in scope transfer thin fibrous cotton which to places planting , they from among the most effective varieties determination enable gave , Egypt of cotton all there is varieties of fiber economy quality study as a result 22 thousand in the USSR in 1928 , 1929 121 thousand tons thin fibrous cotton cultivated if so , to 1933 come in Uzbekistan from this too many p thin fibrous cotton prepared . In this case, the average yield of cotton per hectare was 4.8 centners⁴.

In the Surkhondaryo region, this variety was tested in Sherabad, Termiz and Zharkurgan regions, and in 1933, this type of cotton was planted on 3.5 thousand hectares of land, and more than 2 thousand tons of fine cotton was grown. In the spring of 1934, in these regions of Surkhondaryo region, two varieties were planted in all fields: Pima and Maarad varieties. cotton was planted. Since 1933, in these regions of Surkhondaryo region, large-scale research studies on the preparation of seeds from the best and high-yield plots have been conducted. In the spring of 1934, an elite seed farm was established in the collective farm named Kirov in the village of Chuyunchi, Sherabad region. This farm supplies farms in Surkhondaryo and Bukhara regions and Fergana valley with seed. At this point, it should be noted that the yield of Pima and Maarad varieties with thin fibers was practically not less than the yield of varieties planted from non-thin fibers cotton groups. and Maarad varieties in 1932-1933 .

Table 8⁵

	1932 (year of first planting)		1933 year	
	American variety	Egyptian variety	American variety	Egyptian variety
in Sherabad region	12.0	1.2	7.8	7.7
in Termiz region	6.6	1.8	5.3	4.2
In Jarkurgan region	4.5	2.2	5.2	4.7

Since 1938 , fine fiber cotton has been planted in Shorchi region. In 1941, 19,600 hectares of 40,000 hectares of cotton were planted in the region. On average , 12.2 quintals were harvested from each hectare of land . During the difficult years of the Second World War, the yield of thin-

³ M.S. Istomin. Agrotechnics for obtaining high yield from thin fiber cotton in Surkhondaryo. T., publishing house of the Central Committee of the Republic of Uzbekistan, 1969. 5-6 pages.

⁴ Archive of the Surkhondaryo regional government branch of UzPA, fund 1, list 5, case 46, sheet 60.

⁵ State archive of Surkhondaryo region. Fund-48, opis Surkhondaryo VDA, 19 funds, list 1, case 48, sheet 19.

fiber Egyptian and American cotton (hundreds per hectare) was planted on 2.5-3.5 thousand hectares of land in Denov region.⁶

In the post-war years, production of fine staple cotton peaked in 1953 and 1954. This cotton area is 33,000 hectares , and almost 60,000 tons of cotton were produced. The following data for 1954 give an idea of the area under fine staple cotton, yield and gross yield:

	Land area (hectares)	Yield (hundreds per hectare)	Total harvest (tons)
Termiz region	5040	21.2	10,685
Jarkurgan district	8094	22.8	18,455
Shorchi district	8200	13.0	10,715
Sherabad district	4300	17.9	7,667
Angor region	7300	16.6	12,107
By region	32,934	18.1	59,629

In the oblast, the share of fine fiber cotton crops was 45 percent, and 35 percent of cotton production.

and district leaders were awarded the title of Hero of Socialist Labor for their high yield of fine fiber cotton . Many agricultural workers were awarded with orders and medals of the USSR, received high honorary titles. 35-1; Due to the fact that 5476-I cotton varieties were severely damaged by fusarium wilt, the area of land where these varieties were planted began to decrease sharply. This was greatly helped by the desire to produce cotton without taking into account its quality. In 1964, this variety remained on the total area of 12,365 hectares in the region, only 23,178 tons of cotton were grown. This was about 9% of the total amount of cotton produced in the region.

In the decision of the Council of Ministers of the USSR, adopted on September 30, 1966, "On measures to increase the production of fine-fiber cotton of the Soviet variety", all the main, difficult issues that hinder the production of this cotton were solved: the price of preparation of fine-fiber cotton grown on state farms was increased, the responsibility for carrying out the tasks given in connection with the cultivation of this cotton has been strengthened. Now, the issues of mineral fertilizer, water and technical standards for these cotton growing farms have also been resolved. In April 1968, the Central Committee of the Communist Party of Uzbekistan and the Council of Ministers of the Republic decided on urgent measures to increase the production of fine fiber cotton. In this decision, all the ways to raise the yield of fine fiber cotton and increase its cultivation were clearly indicated. In both of these decisions, great attention was paid to the development, introduction and breeding of high-yielding thin fiber cotton varieties that are resistant to wilt disease and give the highest type 1 and 2 fibers.

In 1966, 53,100 tons of fine fiber cotton was grown, and the growers of the plan region successfully fulfilled the cotton delivery plan. 58,000 tons of cotton were handed over to the state, which made up 17.5 percent of all cotton grown in the region. An average of 23.9 quintals of fine fiber cotton was obtained from each hectare of land , and the agricultural workers of the region got a higher harvest in 1968. This year, compared to 1965, 18,000 tons more cotton was grown, 26.4 centners of fine fiber cotton was obtained from each hectare of land , and a total of 71,200 tons of cotton was handed over to the state. The weight of thin-fiber cotton in the region is 20.6 percent, and as a result of the selfless work of the people of the region, raising the farming culture, and introducing advanced methods of organizing labor in field work, the collective farms in the region are the first in the production of thin-fiber cotton. obtained a high result: collective farm "Moskva" in

⁶ M.S. Istomin. Agrotechnics for obtaining high yield from thin fiber cotton in Surkhandarya. T., publishing house of the Central Committee of the Republic of Uzbekistan, 1969. 8 p.

Zharkurgan region from 34 centners per hectare of land; "October 40 anniversary" collective farm in Termiz region from 32 centners; and collective farms named after Lenin, "Socialism" and "Kizil Oktyabr" in Zharkurgan region produce 30 centners per hectare of land. The advanced brigades led by E.Norboyev and B.Rakhmonov of the collective farm "40th anniversary of October" in Termiz region produced 40-45 centners of thin fiber cotton from each hectare of land.

is 5904-I, which produces 3 types of fiber. Since this variety is not resistant to fusarium wilt and black root rot, it was replaced by S6002 variety. This variety produces 2 types of fiber, although it is resistant to fusarium wilt, but it is not resistant to macrosporiosis disease. The varieties T3, T7, T8 released by the regional agricultural experiment station are resistant to 2 root rot diseases, have a much higher yield compared to the 5904-I variety, and brought economic benefits by maturing a few days earlier. and the S6028, S6029, S6030, S6033, S6034, 8022 varieties released by the Institute of Selection gave great economic results, similar to the above T3, T7, T8 varieties. There are two elite breeding farms in the region. One of them was located at the "XXP part syezd" collective farm in Sherabad, and worked on the S 6002 variety, and the second one was located at the "Namuna" collective farm in Termiz, and worked on the 5904-I variety.

CONCLUSION

In conclusion, it should be emphasized that during the years of Soviet power, the territory of Surkhondarya region was transformed into a region of extensive development of cotton cultivation, and the possibilities of planting fine-fiber cotton in the oasis were fully explored. As a result, the oasis became a testing ground for cotton varieties and was selected as an area for scientific research. In the implementation of such a state policy, the work of researchers such as SM Istomin was widely used.

In order to develop the cotton monopoly, the Soviet authorities also carried out important practical work on planting cotton varieties suitable for the region. Paying particular attention to the work of creating fine fiber cotton varieties, which are considered important for industry. Scientific research institutes were established for allocating the necessary funds for these works and breeding heat-resistant varieties. Experienced scientists and agronomists were also involved in this scientific research work.

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