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Change Efficiency of Cleaning Cotton from Small and Large Pollutions

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ABSTRACT: In this article, samples were taken from the selection of hard-to-clean Hampor, Sultan, Jarkurgan and well-cleaned Beshkahramon varieties at the Shurchi ginnery in Surkhandarya region, and their effectiveness in cleaning small and large contaminants was determined by LKM.

KEY WORDS: Breeding area, fine and large contamination, selection, cleaning efficiency

I. INTRODUCTION

The at cotton fiber is one of the main products of the textile industry. In the last two years in our country, has been paid to the creation of infrastructure based on advanced technologies in all sectors, in particular industry, especially in agriculture to support the cluster system.

In order to produce high-quality finished products in spinning and weaving enterprises, it is first necessary to create cotton varieties, which ripen in a short period with high yields and meet the standard requirements of quality indicators.

In order to produce high-demand finished products that meet the needs of the population in the current conditions, it is necessary to create high-yielding cotton varieties with high ripening and quality indicators that meet the needs of the population. However, some of the new varieties being created are being removed from planting in the short term. Therefore, first of all, it is necessary to pay great attention to the field of breeding. In addition, some varieties of cotton gins are less efficient at ginning.

The ginneries of the country are equipped with modern equipment with maximum cleaning capacity. However, the amount of moisture is very important for the processing of raw materials in this equipment [1, 2, 3].

II. ANALYSIS OF EXISTING FILTERING MATERIALS AND RESEARCH RESULTS

Because when the moisture content of cotton is high, it becomes difficult to remove impurities, the amount of tangled fiber in the fiber, the amount of complex tangled fiber, the amount of impurities increases, resulting in poor quality of fiber and its products. In addition, the low moisture content of cotton does not lead to good results. This is because the physical and mechanical properties of the fiber are degraded at low humidity. Therefore, it is necessary to recommend optimal moisture and zoning of the optimal selection variety for the first cultivars developed in ginneries [3, 4, 5].

In cotton gins, the moisture content is the first priority for good ginning of cotton, and the second is the selection varieties .

For example, if the moisture content is higher than the standard requirements, the cleaning efficiency of the cotton will be lower. As a result, the quality of the products obtained from it is degraded. Cotton is accepted for moisture and contamination in cotton processing plants.

If the moisture content is higher than the standard values, it is passed through the drying and cleaning shops before acceptance and then accepted. Therefore, it is important to pay attention to moisture and selection navigation when receiving cotton in the first place [6, 7].

III. EXPERIMENTAL RESULTS

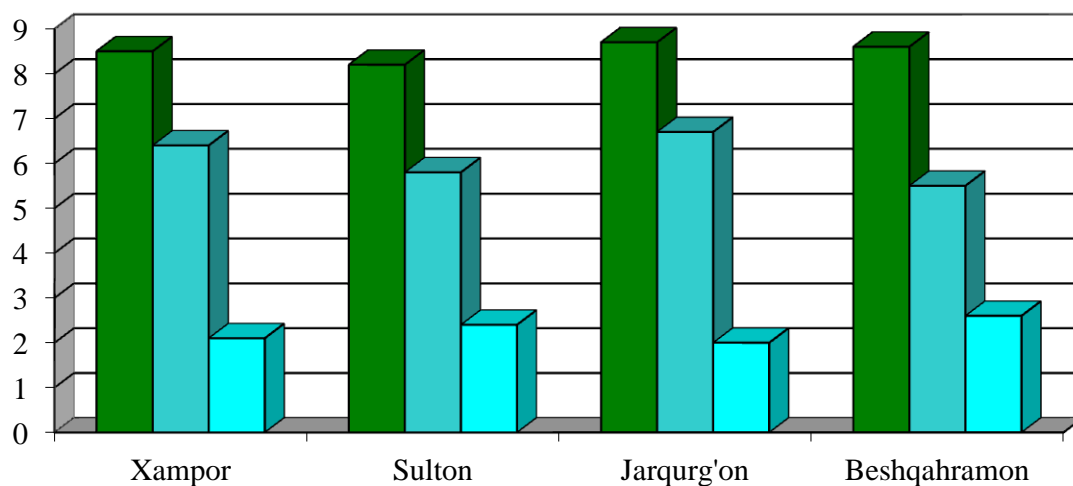
Therefore, in Surkhandarya region, Scientific research was conducted to determine the cleaning efficiency of a number of difficult-to-clean and well-cleaned selection varieties, which are regionalized.

The results of the research are presented in Table 1.

Table 1
Changes in the cleaning efficiency of small and large contaminants of different selection varieties

t / r	Indicators	Selection varieties			
		Xampor	Sultan	Jarqorgon	Beshqahramon
1.	Moisture content of cotton in cotton,% pollution: total, in percent including: major pollution minor pollution	10,9	11,0	10,6	9,9
		8,5	8,2	8,7	8,6
		6,4	5,8	6,7	5,5
		2,1	2,4	2,0	2,6
2.	After the drying process moisture content of cotton,% pollution: total, in percent including: major pollution minor pollution	8,7	8,6	8,7	8,4
		5,9	5,5	5,6	5,3
		4,8	4,7	4,6	4,1
		1,1	0,8	1,0	1,2
3.	After the cleaning process moisture content of cotton,% pollution: total, in percent including: major pollution minor pollution	8,2	6,9	7,8	6,4
		0,91	0,51	0,72	0,47
		0,36	0,18	0,24	0,16
		0,55	0,33	0,48	0,31

Based on the results of Table 1, in Figures 1-4, histograms of changes in the efficiency of cleaning cotton from small, large and general contaminants after drying and cleaning processes of different selection varieties were constructed.



Selection varieties

Figure 1. Changes in the cleaning efficiency of cotton of different selection varieties from small and large contaminants.

- general; - large; - minor pollution.

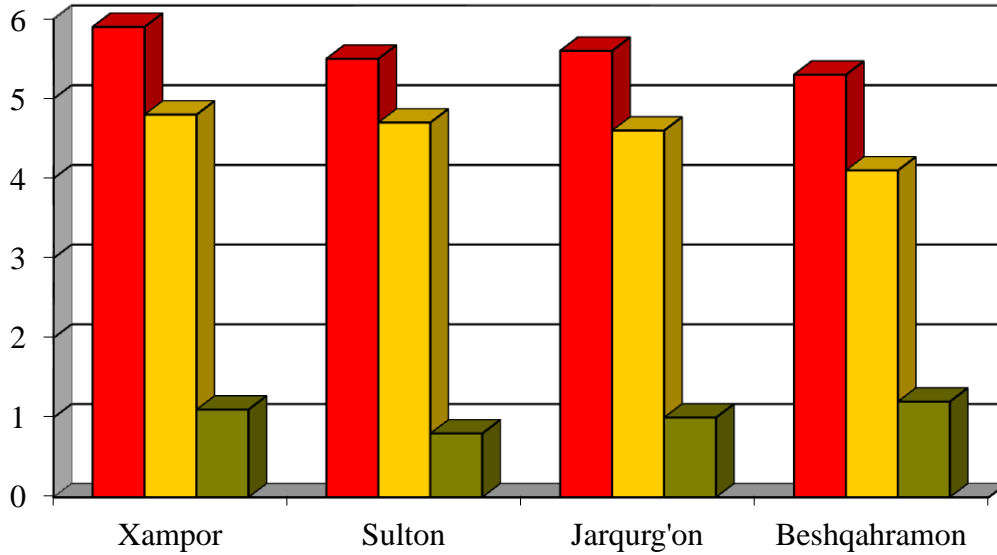


Figure 2. Changes in the cleaning efficiency of cotton from small and large contaminants after drying process of different selection varieties.

- general; - large; - minor pollution.

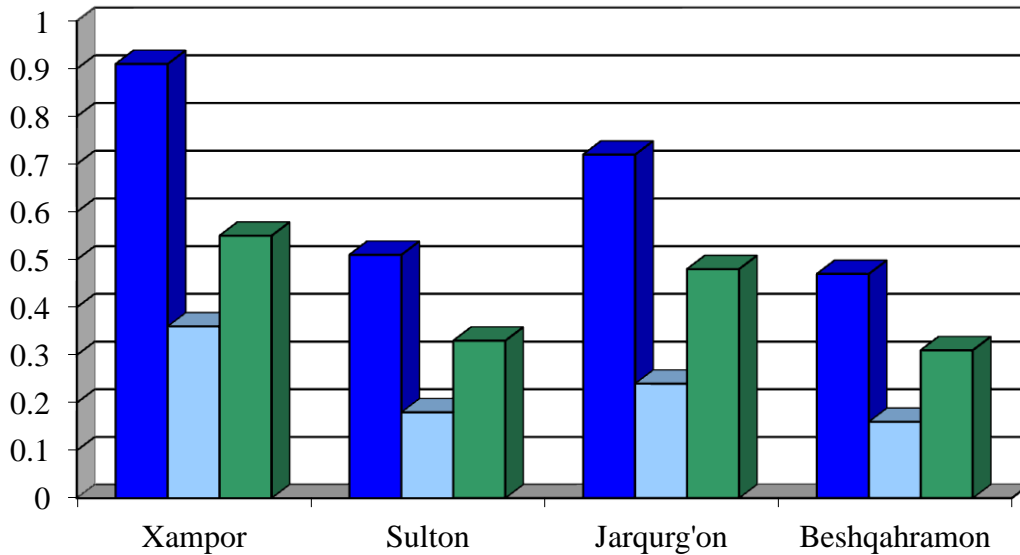


Figure 3. Changes in the cleaning efficiency of cotton from small and large contaminants after the cleaning process of different selection varieties.

- general; - large; - minor pollution.



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IV. CONCLUSION AND FUTURE WORK

Analyzing the results of the study, the total amount of contaminants after drying process of Humpor selection cotton is 30.6%, the amount of large contaminants is 25.0%, the amount of minor contaminants is 47.6%, the total amount of contaminants after cleaning is 89.3%. 43.7% of major contaminants, 71.8% of minor contaminants, 31.7% of total contaminants after drying of Sultan selection cotton, 18.9% of coarse contaminants, 66.7% of minor contaminants, after cleaning 93.8% of total pollution, 69.0% of large pollution, 87.5% of small pollution, 35.6% of total pollution after drying of Dzharkurgan selection cotton, 31.3% of large pollution, small pollution 50.0%, the total amount of contaminants after the cleaning process is 17.2%, the amount of large contaminants is 64.2%, the amount of minor contaminants is 76.0%, the total amount of contaminants after the drying process of Beshkahramon selection cotton is 38.4%, yir 25.5% of the total contaminants, 53.8% of the minor contaminants, 45.3% of the total contaminants after the cleaning process, 70.9% of the major contaminants, and 88.1% of the minor contaminants were removed from the sample in the initial sample. It follows that the efficiency of Sultan and Beshqahramon selection cotton cleaning from small and large contaminants is higher than other industrial varieties [8].

At present, our selection scientists are developing a number of varieties of cotton that are resistant to various diseases, and ripen in a short period with high yields. The variability of quality indicators during the initial processing and spinning of cotton of these selection varieties varies. Therefore, cotton ginning and spinning plants develop optimal options for each selection variety. However, in ginneries it is also possible to obtain low-quality yarns in the process of spinning the first processed raw material on the optimal option. This is because the spinning capabilities of these selection varieties also vary.

In summary, when we analyze the effectiveness of cleaning of different zonal selection varieties from small and large contaminants, the total amount of contaminants ranges from 31.7% to 38.4%, the amount of large contaminants from 25.0% to 70.9% and the amount of minor contaminants from 50, A clearance of 0% to 88.1% was found relative to the sample in the initial heap.

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