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RESEARCH OF THE EFFICIENCY OF CLEANING OF DIFFERENT PROSPECTIVE SELECTION VARIETIES BY TECHNOLOGICAL PROCESSES

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Abstract: The research was conducted at the "ZAMIN ANGOR CLUSTER" LLC cluster enterprise in the Andijan region. The Andijan-36, 52-4, China-31, China-29 and 52 selection varieties imported from China and grown in Andijan were processed and the purification efficiency of various selection varieties was determined.

Keywords: new varieties, breeding industry, efficiency of cleaning from small and large impurities

1. INTRODUCTION

In the current conditions, in order to produce highly demanded finished products that meet the needs of the population, it is necessary to create cotton varieties with high yields, fast ripening and quality indicators that meet the needs of the population. However, some of the new varieties being created are being withdrawn from cultivation in a short time. Therefore, it is necessary to pay great attention to the field of breeding first. In addition, the efficiency of cleaning some of the varieties being created from impurities at cotton ginning enterprises is low.

Cotton ginning enterprises of our republic are equipped with modern equipment with maximum cleaning capabilities. However, selection varieties play a very important role in processing raw materials in this equipment.

In the primary processing of cotton, the cleaning efficiency and changes in quality indicators of selection varieties vary. For example, some selection varieties have low efficiency of cleaning from small and large impurities, but their fiber has high quality indicators. Therefore, in the process of processing selected varieties at cotton ginning enterprises, an optimal option is developed for each selected variety.

Cotton is accepted from farms to cotton processing plants according to its moisture content and impurities. If the moisture content is higher than the standard indicators, it is passed through drying and cleaning shops before acceptance, and then accepted.

If the moisture content of cotton is higher than the standard indicators, it is not cleaned well from small and large impurities, as a result of which the finished products obtained may be of poor quality. Therefore, at cotton ginning enterprises, any amount of moisture is dried to the moisture content specified in the standard and only then involved in the cleaning process.

In the cotton growing fields of our republic, our breeder scientists are creating a number of varieties of cotton that are resistant to various diseases, have high yields, and ripen in a short time. The changes in quality indicators of these selected varieties during the initial processing and spinning processes of cotton are different. Therefore, cotton ginning and spinning enterprises develop optimal options for each selection variety. However, in cotton ginning enterprises, it is possible to obtain poor-quality yarn during the spinning process of the raw material initially processed according to the optimal option. Because the spinnability of these selection varieties also varies.

2. METHODS

Research was conducted to determine the cleaning efficiency of various breeding varieties, and the test results obtained are presented in Table 1.

Table 1

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Research of efficiency of purification of various promising breeding varieties by technological processes

p/p	Indicators	Selection varieties				
		Andijan-36 selection variety	52-4 selection variety	China-31 selection variety	China-29 селекция нави	52 selection variety
1.	Moisture content of cotton in the gin, %	10,9	11,0	10,2	9,5	9,9
	Amount of total impurities, %	8,5	8,2	8,7	8,3	8,4
	including:					
	the amount of small impurities, %	6,4	5,8	6,7	6,0	6,2
	amount of large impurities, %	2,1	2,4	2,0	2,3	2,2
2.	Moisture content of cotton after the cleaning process, %	8,2	8,0	7,8	8,1	9,2
	Amount of total impurities, %	0,97	0,75	0,82	0,83	0,89
	including:					
	the amount of small impurities, %	0,62	0,49	0,54	0,53	0,57
	amount of large impurities, %	0,35	0,26	0,28	0,30	0,32

Based on the results of the research, in Figures 1-3, graphs of the change in the efficiency of cleaning from large impurities after the cleaning process of various prospective breeding varieties are given.

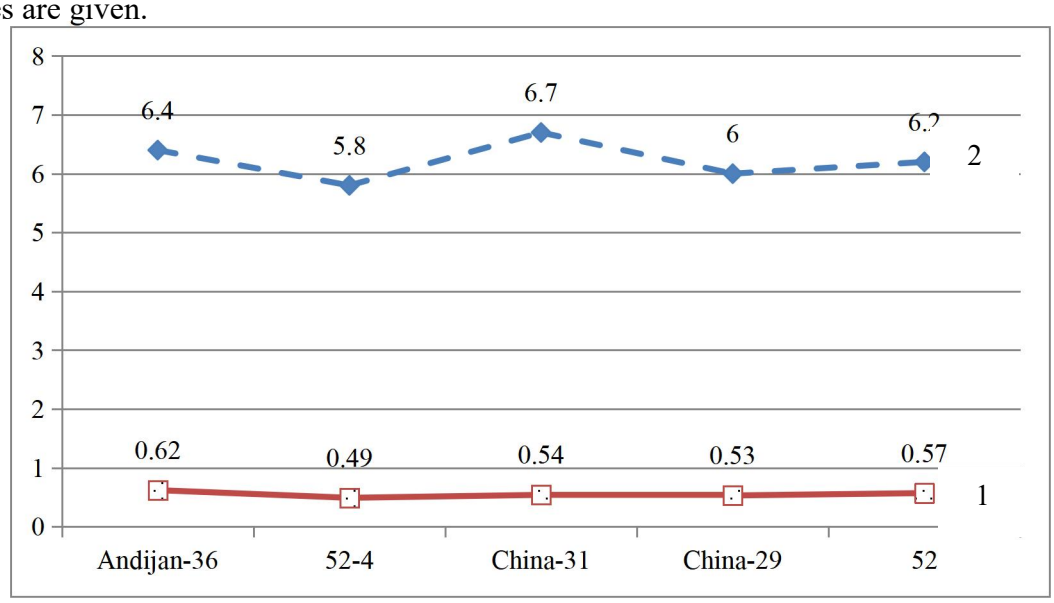

Figure 1. Changes in the cleaning efficiency of various promising breeding varieties after the cleaning process from small impuritie.

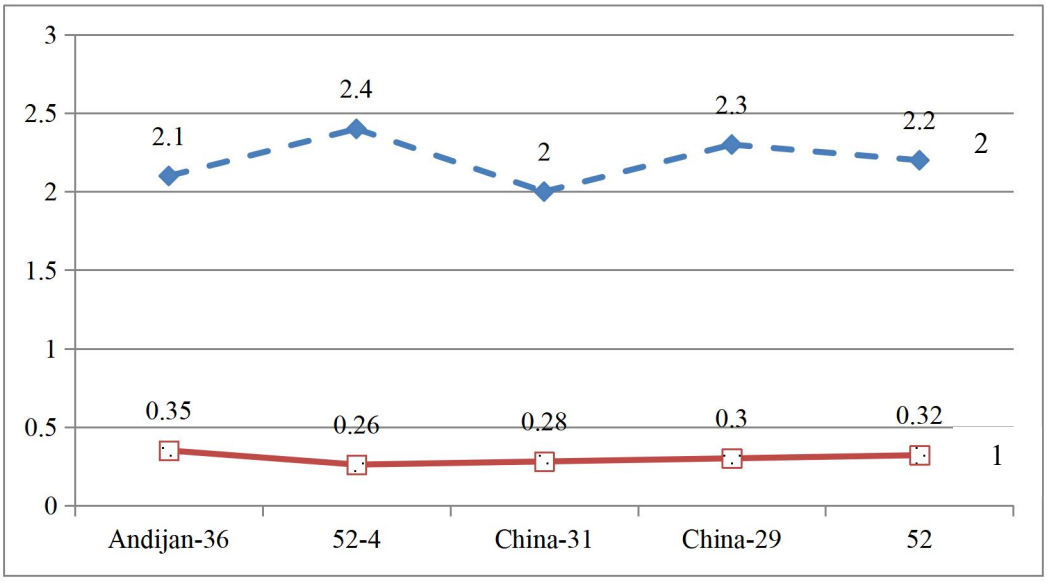

Figure 2. Changes in the cleaning efficiency of different promising breeding varieties from large impurities after the cleaning process.

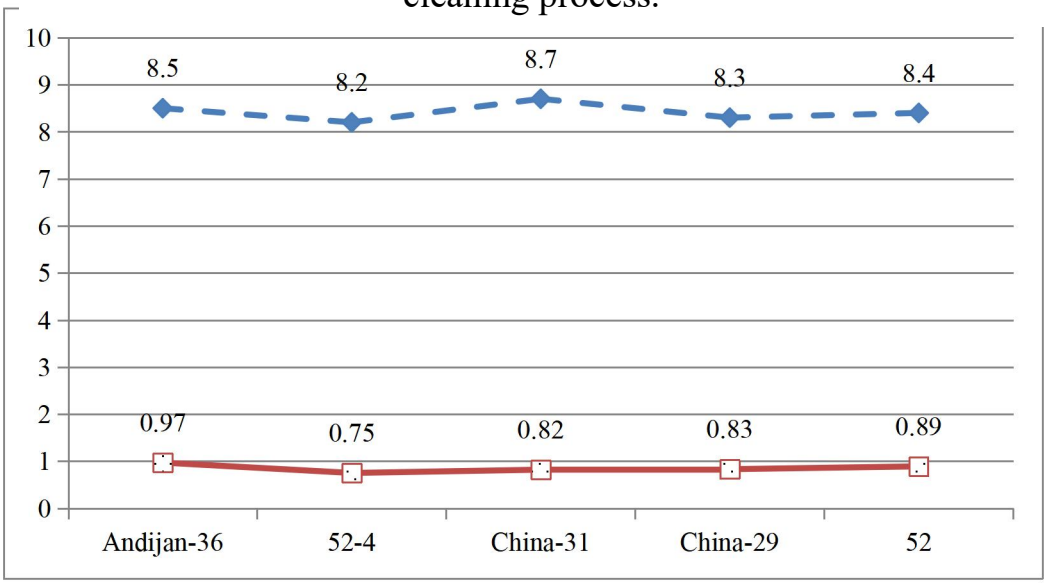

Figure 3. Changes in the cleaning efficiency of different promising breeding varieties from common impurities after the cleaning proces.

3. RESUI

If we compare the obtained test results with respect to the parameters after the cleaning process in relation to the cotton in the garam, the efficiency of removal of small impurities of Andijon-36 selection cotton is 86.8%, the efficiency of removal of large impurities is 83.3%, the efficiency of removal of general impurities is 88.6%, the efficiency of removal of small impurities of selection 52-4 cotton is 84.5%, the efficiency of removal of large impurities is to 89.2%, the

efficiency of cleaning from general impurities to 91.4%, the efficiency of cleaning from small impurities of China-31 selection cotton to 80.5%, the efficiency of cleaning from large impurities to 86.0%, the efficiency of cleaning from general impurities to 94.2%, the efficiency of cleaning from small impurities of China-29 selection cotton to 88.3%, the efficiency of cleaning from large impurities It was found that the efficiency of cleaning from fine impurities increased by 86.9%, the efficiency of cleaning from general impurities by 90.0%, the efficiency of cleaning from small impurities by 91.9%, the efficiency of cleaning from large impurities by 85.5%, and the efficiency of cleaning from general impurities by 89.4% of 52 selected cotton varieties. This shows that, among the selected varieties, the efficiency of cleaning from small and large impurities of cotton imported from China was higher than that of other selected varieties.

The cleaning efficiency of cotton depends on the selected varieties, their drying temperature and humidity.

4. CONCLUSION

The analysis of the results of the study shows that, compared to the indicators after the cleaning process, the efficiency of cleaning from total impurities of the 52-4 selection variety cotton imported from China increased by 91.4%, while the efficiency of cleaning from total impurities of the China-31 selection variety cotton increased by 94.2%.

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