TO STUDY THE EFFECT OF SEED STORAGE METHODS ON FIBER AND SEED QUALITY

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Annotation. This article aims to develop recommendations for the development of effective storage regimes for harvested cotton without compromising fiber and seed quality.

Key words. Fiber, seeds, dirt, moisture, Jin apparatus, prislah, gharam, atsos, termashup, VXS.

Decree No. PF-14 of November 16, 2021 on measures to regulate the activities of cotton and textile clusters was adopted. The decree approved the Republican Commission for Coordination of Cotton and Textile Clusters. The commission will consider applications for the establishment of cotton-textile clusters, will be formed by a decision of the government on the basis of the conclusion of the cluster commission, and a contract with the applicant for thirty years, which can be terminated only in court. [1]

In recent years, with the support of the Government of Uzbekistan, significant changes have taken place in the Uzbek ginning industry in the field of improving the techniques and technology of processing raw cotton. Emphasis was placed on the use of flexible technologies that process cotton raw materials in a compact manner without excessive auxiliary means and take into account its quality. This allowed to reduce energy consumption by 10-15% in the production of one ton of fiber and improve its quality by reducing the mechanical impact on

cotton fiber.

Research objectives: - To analyze the current state of cotton storage technologies, the specifics of harvested cotton;

- Determining the storage efficiency of cotton in the existing cotton storage process, depending on the initial moisture and contamination;

- Experimental determination and analysis of the efficiency of ginning cotton, the quality of fiber produced at the ginneries of the Republic;

- Analytical analysis of fiber contamination and defective mixtures;

Develop practical recommendations for quality storage of harvested cotton.

Research method. Analytical studies were carried out by analyzing the pollution, moisture properties, practical cleaning efficiency in the production of cotton ginning equipment as an object of cotton processing, the composition of the pollution structure, and compared with the practical results.

Applied research used standard methods of sampling in production conditions, their number, methods adopted in the field of cotton processing, product quality. The quality of cotton, fiber and seeds was determined using standard methods.

Fiber quality - the amount of impurities in the fiber has been observed to increase with increasing shelf life. It was found that the figure increased even more when the cotton was stored in the warehouse. In addition, as cotton matures and the storage density increases, fiber deficiencies and other contaminants increase. This can be explained by the fact that with increasing shelf life, the fiber adhesion of various contaminants also increased. This, in turn, does not separate the impurities in the fiber during the separation of the seed from the fiber, which leads to an increase in the viscosity of the impurities in the fiber.

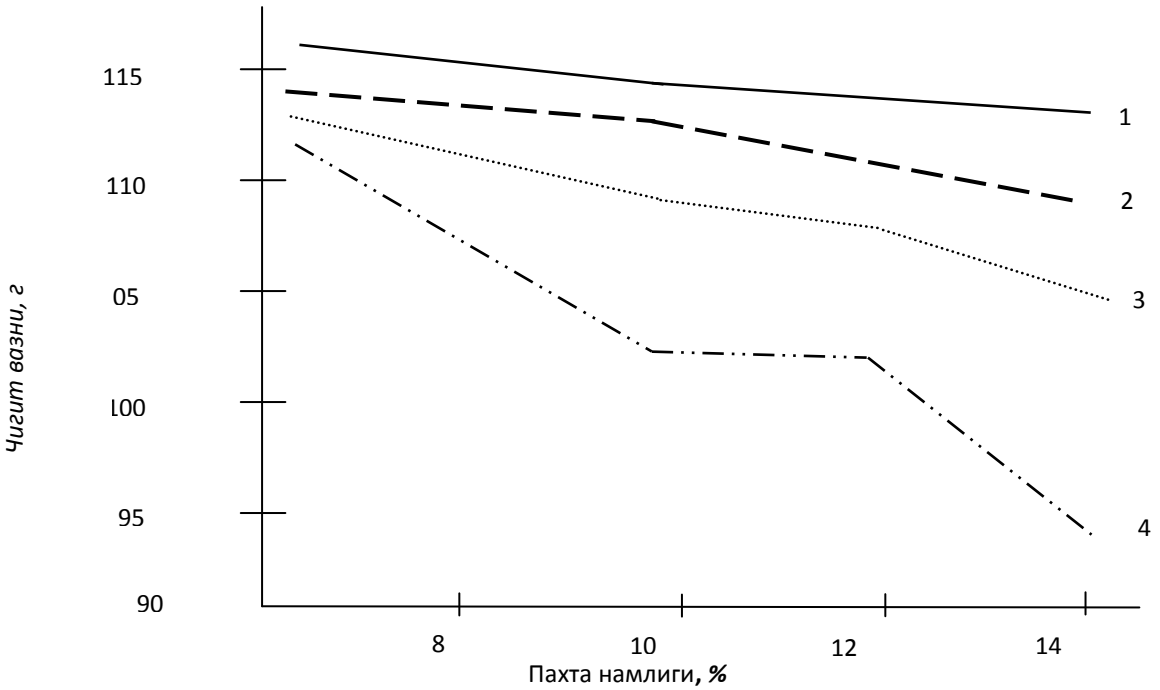
Experiments on seed germination capacity and germination have shown that these values are improving as cotton density decreases during storage. This will increase the hardness of the seed coat. This reduces seed damage and fiber breakage during cotton processing. The amount of contaminants is also reduced.

The effect of temperature and humidity on cotton seed quality. Humidity and temperature during storage of cotton are the main factors that affect the quality of seeds and fiber.

Excessive humidity causes the cotton to heat up spontaneously, which causes the seeds to expend a lot of energy. The respiratory processes of the seeds are disrupted. As a result, the seeds release large amounts of moisture, heat and harmful gases. As a result, the temperature of the seed rises and burns.

Samples were taken from the undried batch of freshly harvested cotton belonging to the Andijan-36 navigator. The level of physiological activity in such cotton is very high. For the experiment, it was first thoroughly dried and then moistened. Cotton was stored at 6-7 0 for 6 months. When the moisture content was 12%, the germination rate was 46%. In another experiment, aborted cotton (collected from a poorly opened cocoon) had a germination rate of 4% when stored at 300, and a germination rate of seeds dried after drying and moistened to 12% was 36%.

Experiments have shown that as the moisture content of cotton increases, its mass decreases (Figure 1).



Modern methods of picking, delivery, receipt and storage of cotton are widely used by cotton mills and points, and there is every opportunity to carry out

these processes quickly. However, due to the large amount of cotton harvested during the season, it is sometimes difficult to speed up the process. Cotton that does not meet the standard requirements will also have to be accepted. In order to bring such cotton closer to the condition, it is necessary to go through certain technological processes. This requires accelerated drying equipment at cotton mills. Sometimes it is too expensive to receive, dry and clean cotton, even if the moisture content of cotton is slightly higher than the requirements of the UzRST, which leads to a reduction in the cost of cotton.

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