

## TECHNICAL SITUATION OF THE PROBLEM OF COTTON PROCESSING IN COTTON PROCESSING ENTERPRISES IN UZBEKISTAN

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### ANNOTATION

*In the conditions of the market economy, rational use of raw materials, production of high-quality cotton raw materials and cotton products of sufficient quality and suitable assortment for use is also an important problem for the country. Based on them, the competitiveness of cotton fiber is increasing both in the domestic and world markets. At the moment, it is becoming an important and urgent task to systematically improve and improve the quality indicators of the production of cotton fiber and yarn, as well as textile materials and products. The fact that the above is aimed at improving and increasing the quality of finished gas is an important economic and social problem. Therefore, we must protect the economic business interests of Uzbekistan, use the opportunities and tools effectively and consistently, search for new main sources of economic development, increase the competitive advantage of local production and self-implement innovative technologies.*

**Keywords:** Cotton, Uzbekistan, fiber, technology, development, variety, factory, processing.

### АННОТАЦИЯ

*В условиях рыночной экономики важной проблемой для страны также является рациональное использование сырья, производство высококачественного хлопкового сырья и хлопчатобумажной продукции достаточного качества и пригодного для использования ассортимента. Исходя из них, конкурентоспособность хлопкового волокна повышается как на*

*внутреннем, так и на мировом рынках. В настоящий момент важной и актуальной задачей становится систематическое совершенствование и улучшение качественных показателей производства хлопкового волокна и пряжи, а также текстильных материалов и изделий. То, что вышеизложенное направлено на улучшение и повышение качества готового газа, является важной экономической и социальной проблемой. Поэтому мы должны защищать экономические бизнес-интересы Узбекистана, эффективно и последовательно использовать возможности и инструменты, искать новые основные источники экономического развития, повышать конкурентные преимущества местного производства и самостоятельно внедрять инновационные технологии.*

***Ключевые слова:** Хлопок, Узбекистан, волокно, технология, разработка, сорт, фабрика, переработка.*

## INTRODUCTION

Currently, in cotton processing enterprises, the working area of the dryer chamber is used ineffectively; the supplied coolant needs to be studied. The question of the interconnectedness of drying, cleaning and the kinetics of dirt, the nature and block mechanism of defect formation in cotton fiber during the drying process remains open. Therefore, the development of effective technology with a scientifically based approach to the preparation of cotton fiber demonstrates the relevance of the research. A special substance of short fibers evaluates the finality, which originates from the use of heat during drying with a higher temperature of the drying agent, thereby in turn leading to overdrying of the fiber. The bulk of cotton mills are faced with a situation where regeneration waste flows from the cleaning shops and fiber - from the shop for processing fiber waste, flows oppositely into the primary flow. This same implementation mechanism also leads to a deterioration in the quality of cotton fiber, and, accordingly, to a decrease in its spinning ability.

## METHODS

Based on this, specialists and scientists in the cotton processing industry Zulfonov S.Z., Ibrogimov Kh.I., Safarov F.M., Ruziboev Kh.G., Ismatov I.A., Juraev O.O. etc. Research work is underway to improve the technology for processing raw cotton, which largely depends on the design of individual technological machines.

If we consider the technological line for processing medium-staple and long-staple varieties of cotton and compare it with today, it should be noted that these lines do not meet the requirements of the industry, especially in terms of improving the quality of cotton fiber and the high costs of creating and maintenance of machines used in cotton ginning factories.

Enterprises where Uzbek technology is installed due to high energy consumption and the number of technological equipment, high dimensions, and many working areas are currently idle. All these changes pose new challenges for scientists and specialists in this industry to create new machine designs and technologies for processing raw cotton.

## RESULTS

Enterprises for the primary processing of raw cotton, in order to obtain high-quality products, allocate space for machines for the technological process, in order to increase and maintain the class and grade of cotton fiber. The main indicator of the quality of raw cotton, which all farms and cotton factories need to pay attention to, is the fiber yield. Moistening cotton fiber is one of the most important tasks for the cotton ginning industry, which requires compliance with the drying regime of raw cotton. On this issue, some technical solutions have been obtained for humidification installations and their designs, based on the results of the necessary theoretical and experimental studies. It has been established that the required moisture content of cotton fiber before pressing in a press box, the fiber will reach from  $5.5 \div 6.0\%$ , instead of the required  $7.0 \div 8.5\%$  according to the standard.

The introduction of new designs for moistening cotton fiber increases humidity by  $1.5 \div 2.0\%$ , which significantly changes the process for the better. Based on the

results of the study, it was revealed that in order to improve the activities of cotton-growing farms and cotton factories for primary processing of cotton in the future, it is necessary:

- improve the design of drum cotton dryers to increase moisture removal, reduce ignitability in the fibrous bonds of raw cotton flakes and drying efficiency;

- at cotton ginning shops and factories, use advanced technology, which includes a humidification unit, taking into account the requirements of spinning factories for the moisture content in the produced cotton fibers that meet standard standards;

- comply with the requirements of regulations and modes of modern technological processes for processing materials.

Some of the listed tasks are the subject of further research.

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### **DISCUSSION**

Many developments are experimental in nature. They do not provide notice about upgrading the dryer internals. And also the development of an automated device for regulating the direction of coolant supply in the falling zone of raw cotton, finding methods and materials for coating the internal devices of the dryer chamber to eliminate rust from the components in order to preserve the outer appearance of the fiber.

In this context, there was a need to conduct a study of the functioning of drum and tower dryers in order to identify the influence of the most important factors on the flow occurring in them and, on the basis of this, to reveal the concept of further ways to increase drying efficiency, by creating:

- automation of regulation of the direction of supply of coolant into the initial lengths of the drum into the zone of falling material;
- increasing the high efficiency of using the volume of the drum chamber and coolant;
- finding methods and materials for coating the internal devices of the dryer chamber to prevent rusting of parts in order to preserve the appearance of the fiber.

### **CONCLUSION**

Based on the results of the comparative study, the main indicators of the procurement processes and processing of new varieties of selected cotton varieties

were determined and the quality indicators of the fiber were assessed. To improve the techniques and technologies for preparing raw cotton for processing and the issue of their use in practice, the state of the issue of drying raw cotton was analyzed and the existing shortcomings in the functioning of drying machines were identified, as well as setting tasks for further research.

## REFERENCES

1. Гуляев Р.А., Лугачев А.Е., Усманов Х.С. Современное состояние производства, переработки, потребления и качества хлопковой продукции в ведущих хлопкосеющих странах мира. Научный центр АО «PAHTASANOAT ILMI MARKAZI», Ташкентский институт текстильной и легкой промышленности, «Пахтасаноат илмий маркази» акция-дорлик жамияти («Pahtasanoat ilmiy markazi»AJ), 2017. -Ташкент. -169 с
2. Межгосударственный стандарт 3279 - 95 (Уз РСТ 604 - 93;O'zDSt 604:2001) «Волокно хлопковое». Техническое условие. -Ташкент. Узгосстандарт, 1995. - 31 с.
3. «Русское хлопковое сообщество». Маркетинг рынка хлопкового волокна. -М.: Учебник для Вузов. - 2004. - 128 с.
4. Кучерова Л.И. Оценка влияния сушки на структуру и свойства хлопкового волокна и качество вырабатываемых из него пряжи и ткани. //дис. на соискание ученой степени канд. техн. наук - М.: 1981. - 178 с.