ИЗУЧЕНИЕ ПРОЦЕССА ПРОПОРКИ И ХРАНЕНИЯ ХЛОПКА ТОНКОЙ СТАДИИ

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Аннотация: Показана очистка хлопкового сырья, очистка хлопка ручного и машинного сбора, приведена переработка хлопка первых сортов на вальцовых хлопкоочистительных машинах. Показан процесс прохождения через трубу и отверстия в слое хлопка-сырца.

Ключевые слова: Всасывающая труба, вентилятор, механизация, ролик, технологический процесс, вентиляция, интенсивная.

STUDY OF THE PROCESS OF WEEDING AND STORAGE OF FINE STAGE COTTON

Annotation: Cleaning of cotton raw materials, cleaning of hand-picked and machine-picked cotton is shown, processing of the first varieties of cotton with roller cotton gins is given. The process of passing through the pipe and holes in the raw cotton layer is shown.

Key words: Suction pipe, fan, mechanization, roller, technological process, ventilation, intensive.

The issues of rational and economic expediency of manual and machine picking, cleaning and storage of highly contaminated and wet cotton raw materials were studied. The causes of spontaneous heating of cotton raw materials in closed and closed warehouses have been identified. The process of shoveling with the help of a centrifugal fan during the transportation of cotton raw materials through a suction pipe was studied.

The issues of rational and economic expediency of manual and machine picking, cleaning and storage of strongly polluted and wet cotton raw materials were studied. The causes of spontaneous heating of raw cotton in closed and closed

warehouses have been identified. The process of shoveling cotton raw materials through a suction pipe using a centrifugal fan was studied.[1]

Cotton ginning joint-stock companies of the Republic of Uzbekistan are strong enterprises of the company, where processes: drying, preliminary and final cleaning, cleaning, lintering, etc. are carried out. Currently, an extensive program for the division of these enterprises has been developed, in which issues of full mechanization of labor-intensive work and automation of production processes are being developed. Currently, an extensive program for the division of these enterprises has been developed, in which issues of full mechanization of labor-intensive work and automation of production processes are being developed. Special attention is paid to improving the quality of fiber and lint. The technological process of the enterprise should ensure high-quality processing of highly contaminated and wet cotton raw materials, hand-picked and machine-picked cotton.

The theory and practice of roller cotton ginning has not yet been sufficiently developed. However, this process has been found to be superior to sawing in the processing of fine fiber cotton, which opens up wider prospects for the development of reel cleaning.[2]

Scientists B.I. Roganov, S.D. Baltaboev, I.L. Savchenko, I.V. Zakharov, I.K. Hafizov, E.B. Zulfanov and others carried out research in the field of cotton cleaning. In the study of saw cleaning, it was found that it depends on the performance of working bodies, their productivity could be significantly increased. Only little work has been done in the study of roll gins; there is still no consensus on their working principles.

It should be noted that the working process of roller ginning machines does not have sufficient theoretical basis abroad. There is a description of various constructions of machines that carry out the process of separating fibers from seeds in roller cotton seeds [3].

Comprehensive study of work in the field of cleaning cotton raw materials. Therefore, based on theoretical and experimental data, we set the task of establishing the most reasonable design of a cleaner for cotton raw materials with fine staples and determining the optimal mode of the technological process of cleaning cotton raw materials during roll cleaning. In the work, we will make suggestions on structural changes aimed at increasing their productivity and improving the quality of cotton fiber in the process of cleaning the new machines we offer. Special attention should be paid to cotton - a raw material with high humidity, folded in piles or closed warehouses, even if the height of the layer is 1-2 m, it starts to heat up, and if cooling and drying measures are not taken, cotton is strong it changes color by itself. - it becomes yellowish when heated. At a temperature of 60-70 ° C, the strength of the fiber is lost, the seeds deteriorate, and also acquire a dark brown color.

With the growth of cotton cultivation and the introduction of the machine picking method, the moisture content of picked cotton increased. At a temperature of 60 - 70o C and at a temperature of 60-70 ° C, the strength of the fiber is lost, the seeds deteriorate, and also have a dark brown color. With the growth of cotton cultivation and the introduction of machine harvesting, the moisture content of the picked raw materials increased. It is known that the moisture content of picked cotton material significantly exceeds GOST norms, it is usual for it to be higher in manual picking than in machine picking, starting from type II. With long-term storage of cotton raw materials with increased humidity (more than 11-12% and less than 13-14% for the first varieties), it heats up by itself, which leads to a sharp decrease in the technological properties of the fiber. deterioration of seed quality. To avoid this, it is necessary to dry cotton in time or take preventive measures. However, picking and storage practices show that, due to the high rates of picking and handling, it is not possible to ensure that all incoming cotton is dried in the high-moisture stream at the drying and ginning facilities. Therefore, processing centers are forced to store a large amount of cotton for a long time. The main

preventive method that prevents self-heating is to suck moist air from the mass of rebellion. Currently, air intake with a cross-section of 1.5x0.6 m is widely used from tunnels dug by hand along the length of the upheaval. However, this method requires a lot of hard manual work. In addition, tunnels are dug only after the end of the upheaval and shrinking, in most cases after the self-heating process has already begun. Spontaneous heating of cotton raw materials begins when the moisture content is above 13 - 14% and can be continuous and cellular. Internal self-heating is observed when there is a small amount of wet cotton in a bollard or closed storage of dry raw cotton, or when water seeps in during rain. The heat of the hive is also a serious threat, because when it spreads, it takes over the neighboring areas and can damage a large amount of raw cotton. The batch of cotton raw material that has been determined to be heated is divided into parts and partially or completely treated by blowing and shoveling; if necessary, cotton raw material is dried in driers. It is possible to blow cotton raw material directly into the warehouse with air using a centrifugal fan operating at a pressure of 260-270 mm of water column (static). To do this, channels are installed under the site or a closed warehouse or pipes with holes are laid, air is ventilated into them. passing through the pipes and holes in the raw cotton layer, the air cools it and takes away moisture in the form of steam [4].

5-6 m3 of air per minute or 1 ton of raw cotton is required to blow 1 m3 of raw cotton. Depending on the humidity of the latter, cleaning can last from 2 to 6 hours. Shoveling of cotton raw material was done pneumatically using a centrifugal fan and a suction pipe with a length of 60 m to 120 m. During the transportation of cotton raw material through the pipeline, it is loosened, blown and cooled. We have determined the elastic forces of the fibrous mass of raw cotton, which can prevent its self-compression during storage; on top of that the shoveling of Cotton raw material between the clods was done pneumatically with the help of a centrifugal fan and a suction power of 60 m to 120 m. We have determined the elastic forces of the fibrous mass of cotton material, which in time

can be paid to its self-compression; Thus, the intensity of blowing during ventilation of raw cotton does not depend on the method of formation and it can be controlled by static pressure at storage control points, its value can vary from 80 to 130 ga.

References:

1. Usmonov D.A. Paxta xomashyosini begona o'tlardan tozalash samaradorligini o'rganish // Diss. samimiy. texnologiya. Fanlar. Toshkent. – 1981 yil.
2. Xolmurzayev A.A., Tohirov I.X., Oxunjonov Z.N. Splitter tepasidan reflektor visorgacha bo'lgan zonada paxta chivinlarining harakati // Zamonaviy fan va ta'lim muammolari. – 2019. – yo‘q. 11-2(144).
3. Usmonov D.A., Karimov R.X., Po‘lotov K.K. To'rt barabanli tozalagichning ishini texnologik baholash // Zamonaviy fan va ta'lim muammolari. – 2019. – yo‘q. 11-1 (144).
4. B.G.Qodirov va boshqalar Paxta xomashyosini qabul qilish, terib olish va saqlash tahlili. «Paxtasanoat», 1989 yil, 3-son, 5-6-betlar.