

Procedure For Storing Raw Cotton At Cotton Points And Cotton Gins

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Abstract: Currently, high-grade cotton makes up 80-85% of the raw cotton grown in our Republic. This, in turn, is one of the urgent issues of drying and cleaning high-grade cotton with preservation of natural quality indicators in special new modern low-energy drying and cleaning equipment. The drying of high-grade cotton in the currently used 2SB-10, SBT, SBO drying drums leads to high energy consumption, which is one of the main reasons for the twisting of cotton. Therefore, the study of the main factors influencing the high efficiency of drying and cleaning of high-grade raw cotton in special new equipment is considered an urgent task.

Keywords: cotton, proper and long-term storage, acceptance, moisture

Relevance of the topic. A deeper study of new technologies for storing raw cotton, searching for effective ways of receiving and storing stored cotton without compromising its quality, plays an important role in improving product quality.

The method of cotton storage, its moisture content, contamination, and the relationship between bale density have not been sufficiently studied. In production conditions, conditions based on certain regularities have been implemented in this matter.

Therefore, the conditions created for cotton stored in bales or warehouses and the degree of seed dormancy processes in them are of great scientific and practical importance.

The proliferation of mold fungi in the cotton bales depends mainly on temperature and humidity. The optimal temperature for this is 30-40°C, which is even better.

In cotton with a moisture content of 14%, fungal multiplication began to appear in the first week at 40°C. At 12% humidity, it developed slowly, in the second week. In general, cotton developed in a visible state with a moisture content of 10, 12, and 14%, and a temperature of 17-19, 30, and 40°C. It is known from scientific data that in such stacks, the heating process intensifies, and the seed strength decreases, which leads to a decrease in field germination when sown in the field.

One of the conditions for organizing proper and long-term storage of cotton at cotton receiving points and improving the quality of seeds, fiber, and other raw materials obtained from it is the moisture content at the level of State Standard indicators when placing it in warehouses. We observed that when placing and storing cotton, its industrial grade, picking method, and moisture content are taken into account.

Cotton with a moisture content of more than 20% was temporarily stacked near the drying and cleaning shop and quickly dried and sent for processing to the cotton ginning plant. In order to increase the productivity of the drying and cleaning shop, raw materials with a moisture content of up to 14% were placed at the cotton procurement point at the location of the cleaning shop, and raw materials with a moisture content of more than 14% were placed at the location of the drying and cleaning shop.

Harvest cotton seeds only in dry fields with favorable weather conditions has been done. We found that in areas with high cotton moisture content, especially in areas with close groundwater and when stacking cotton with high moisture content, it leads to a rapid deterioration of its quality. When storing raw cotton in closed warehouses, we stacked the cotton, knowing that for cotton of grades 1 and 2 with a moisture content of up to 11%, its average density should be 150-190 kg/m³, and for cotton of grades 3 and 4 with a moisture content of up to 14%, 130-160 kg/m³. For the storage of raw cotton in open areas, it was placed on special stacks raised 40 cm above the ground in the territory of the cotton procurement point. The placement of cotton in stacks was carried out in the following order. In this case, seed cotton was placed in separate areas depending

on the selection variety, place of cultivation, industrial variety, and type of harvest as follows.

Table 1.1.1.

Placement and storage according to the standard requirements for industrial grade, harvesting method, and moisture content (grade C-4727).

Industry grade	Harvesting method	Moisture during filling and storage of cotton
I	Manual	Up to 9
II	Manual	Up to 10
III	Manual	Up to 11, above 11
IV	Manual	Up to 11

Cotton storage areas are paved with asphalt 50 mm thick or filled with small gravel by laying large stones 150 mm thick. The dimensions of the stacking platforms were 25x14 m. Its center should be raised by 7-10 cm for rainwater to drain. Drainage canals were laid 0.7 m away from the site.

References:

1. Jabborov G. J., Otametov T. U., Hamidov A. X. "Technology of Processing Raw Cotton," T. "O'qituvchi," 1987.
2. Zhuraboev K. On the issues of storage of seed cotton. Agricultural Journal of Uzbekistan, 2003, No. 10
3. Oripov R., Sulaymonov I., Umirzakov E. "Technology of Storage and Processing of Agricultural Products." Tashkent, "Mehnat" Publishing House, 1991