

ANALYSIS OF THE INFLUENCE OF MESH SURFACES ON THE CLEANING PROCESS IN THE PROCESS OF RECYCLING SEEDED COTTON

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Annotation

This article provides information about mesh surfaces, which are the main element of seed cleaning equipment, analyzes information about the designs of mesh surfaces and their mesh geometric shapes and their application in the technological process, and gives recommendations.

Key words: Seed, auger, screw conveyor, dirt, conical hole, oval hole, small and large diameters, drum, feeder.

Introduction

Currently, one of the main tasks of cotton ginning enterprises of the republic is aimed at meeting the requirements of production enterprises in the regions for quality products by increasing the quality indicators of the manufactured products.

Among them, providing textile enterprises with high-quality fiber, oil-oil combine with high-quality technical seed.

The main task is to provide farms in the republic with high-quality seeds.

The main technological process of cotton ginning enterprises consists of the technological processes of drying-cleaning, ginning, and cleaning of seeded cotton. Mesh surfaces are the main element of technological processes of cleaning. The

construction and geometric shapes of mesh surfaces are different, and mesh surfaces with separate shapes are used in sections. 3 different types of mesh surfaces are used to clean seed cotton from small impurities. (Fig. 1) [1-3.]

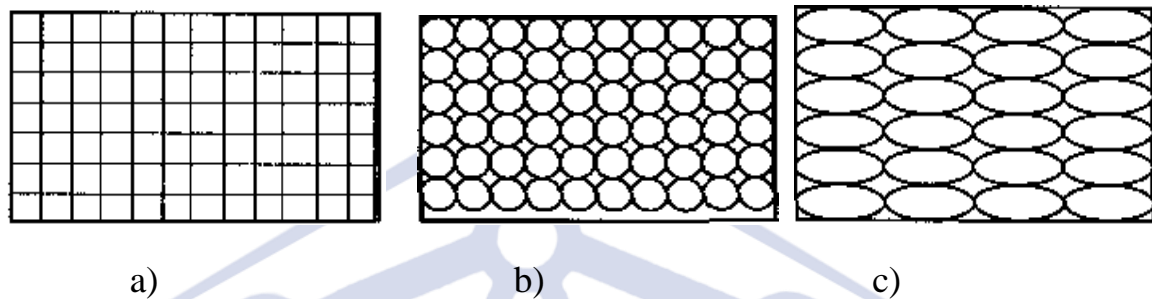


Figure 1. Types of mesh surfaces used in the cleaning process
a) tinned from steel wire; b), c) with different holes in the perforation method 3 mm thick steel made of tin.

In the pneumatic transport system, the main element of the equipment for separating seeded cotton from the air is mesh surfaces, circular mesh surfaces are used.

In the technological processes of seed preparation, the seed cleaning process is the main process, which affects the germination characteristics of the seed.

All the characteristics of the seed are directly related to each other and play an important role in the cleaning efficiency. Depending on the method of cleaning the seeds, their principle of operation is different and the working organs of separation are also different from each other.

Currently, the following techniques and technologies are used in cotton ginning enterprises that prepare seeds. Seed preparation is carried out according to the "Technological regulation of seed cotton processing and seed preparation". The regulation defines the main requirements for hairy, mechanically dehaired and low-hair seed preparation technologies, including treatment and coating process.

Mainly, technological processes of sorting and cleaning are carried out with the help of seed, mechanical (slanted plane, mesh surface) [3-5].

The next year's productivity of agricultural producers, i.e., the quantity, quality and varieties of cotton raw material, cotton fiber, and indicators of seed germination depend on the technology of seed preparation.



In order to increase the efficiency and cleaning effect of this equipment, the improvement of the equipment of the mechanical seed cleaning department of the equipment was carried out.

Mesh surfaces are mainly used to improve the efficiency of seed cleaners, to clean seeds from small dirt, and to catch seeds with fibers. It has been achieved that the cleaning and sorting efficiency of the equipment is variable along the length of the sorter, and at the beginning it is placed equal to $d_1=4$ mm, $d_2=8$ mm, $d_3=10$ mm, $d_4=12$ mm. The figure below shows the designs of mesh surfaces in use today.

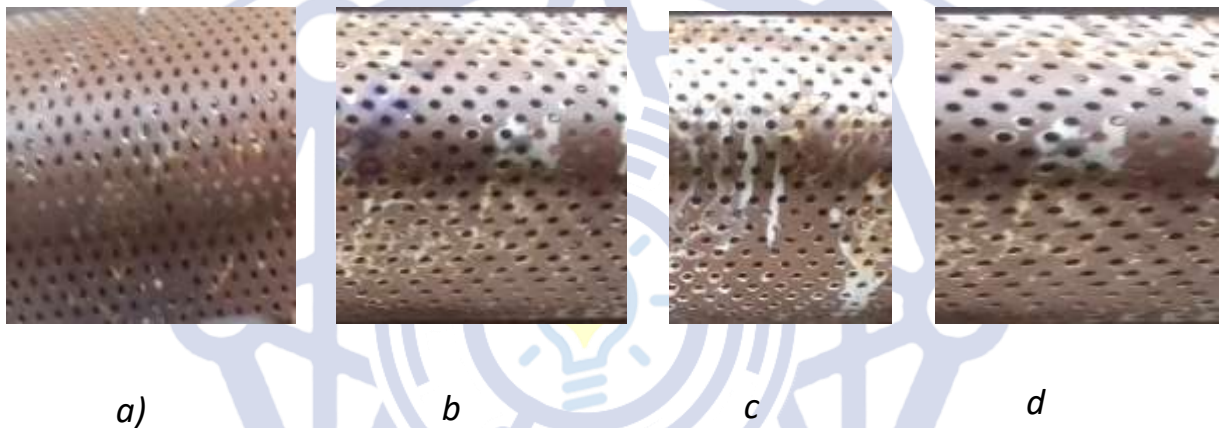


Figure 2. Grid surfaces

a) the diameter of the hole in the mesh drum is 4 mm, b) the diameter of the hole in the mesh drum is 8 mm, c) the diameter of the hole in the mesh drum is 10 mm, d) the diameter of the hole in the mesh drum is 12 mm.

—According to the results of the analysis, experimental tests were carried out for the application of the above-mentioned mesh surfaces in the mechanical seed cleaning equipment and their analysis. In this process, seed cotton seed Namangan-77, 1/1 seed with hairiness of 11.5%, dirtiness of 0.3%, damage of 1% was carried out. proves the possibility of using their selection and industrial varieties in the implementation of the technological process.

Conclusion

The constructions of mesh surfaces used in the technological processes of preliminary processing of cotton and the geometric shapes of their holes have different effects on technological processes, they require their selection based on selection and industrial varieties.

When using mesh surfaces used in the processes of cleaning and sorting seeds, different sizes of their diameters and the sequence of their location require special attention. The above information is the basis for this. Iadi

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