SPECIFIC FEATURES OF YARN QUALITY MANAGEMENT FROM QUALITY LOCAL WOOL

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Abstract

One of the important tasks facing the light industry of our country is to produce quality finished products that meet the needs of the people, can compete in the world market and meet export requirements. Because the higher the quality of the product, the higher the chances of winning the competition and selling for export, which in turn will lead to an increase in the foreign exchange reserves of the republic.

The garment industry of Uzbekistan should provide the population with high-quality and attractive clothing, because the first of the most important things in human life is food, and the second is clothing [1.2.3]. It is designed to protect the human body from the effects of the environment, to ensure its beauty.

Currently, only coarse wool is produced in the country, which is not used in the textile industry. However, it is important to process raw wool at the required level and introduce it to the textile industry. Local coarse sheep wool is the object of research. Its subject is washing-bleaching, bleaching, dyeing, as well as studying the properties of coarse sheep wool. The work aims to develop a technology for the preparation of local coarse wool fibre for spinning in the textile industry, the removal of impurities from coarse wool, its washing, decolourization and the creation of conditions for dyeing to the required colours [4]. By dyeing them in different colours, it has been proven that they can be used in the textile industry.

The wool industry is one of the most important branches of the textile industry. The enterprises of the wool industry produce yarn for the production of wool and semi-woollen fabrics, knitwear, blankets, carpets, and products used for technical purposes. One of the main tasks facing the wool industry is to increase production volumes, improve product quality, increase labour productivity, and use raw materials and materials as efficiently as possible. Increasing the volume and improving the quality of wool yarn will be achieved through the application of scientific and technical advances in the industry, and the reconstruction and technical re-equipment of existing enterprises. Primary wool processing enterprises play an important role in the production of wool fibre products [5]. In these enterprises, wool fibre is obtained as a raw material in spinning mills. The quality of wool fibre affects the quality of subsequent products because only quality fibre can produce a quality product. This

requires a detailed study of the processes that take place in the primary processing of wool [6].

Today, the wool industry is one of the textile industries, where the processing of wool from pure wool or its other fibre mixtures produces yarns of different linear densities, woollen fabrics, various technical and special fabrics, carpets and rugs and nonwovens. is being released [7]. The breeds of sheep and goats raised in our country are Sarodzhin and Tajik sheep with semi-coarse wool, karakul, Hisori and Jaidari sheep with coarse wool.

Including:

Hisori sheep breed- a breed of coarse-haired sheep fed for meat and fat.

Degrees sheep- a new breed of sheep with semi-soft, long hair

Merinos-a flat fine-wool sheep breed.

Meaty-serjunThe live weight of rams is 100-110 kg, and that of ewes is 55-60 kg.

Sigay sheep breed-semi-fine wool sheep fed for wool and meat-wool.

Askaniya sheep breed- a gentle fibrous.

Lincoln sheep breed- Semi-fine wool sheep for meat and wool.

Karakul sheep-For the cultivation of karakul skins, mainly sheep bred in Uzbekistan.

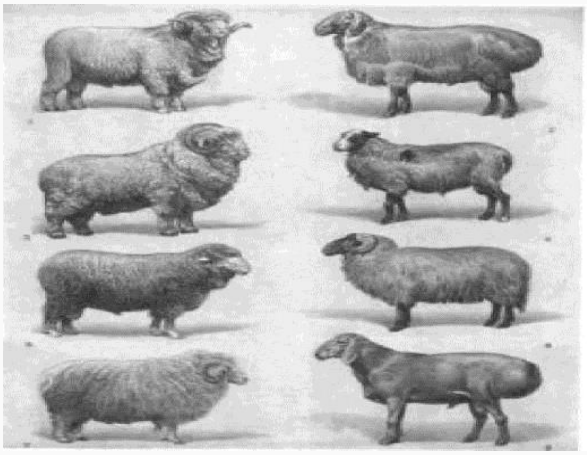
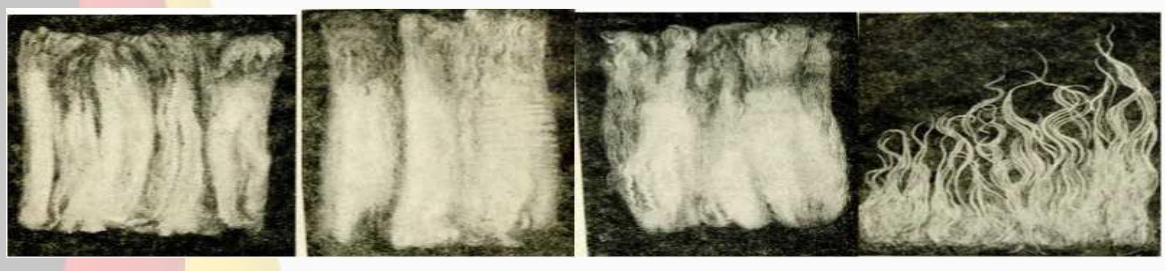


Figure 1. Sheep wool can look different: merino or thin, semi-thin, semi-coarse, mestizo, coarse wool fibres.



Thin Half thin Metis Rough wool

Figure 2. The different appearance of sheep's wool.

Fine wool fibres are mainly cut from local breeds of sheep, such as merino, and Caucasian rambula. Merino fibre is cut once a year. The longest merino fibre is mainly derived from the Caucasian rambula type. The average diameter of this merino wool fibre is 14.5 - 25 mm, the average length is 50 - 70 cm. The composition of merino wool fibre is fluffy, with a density of 16 - 25 kg / mm2.

Semi-coarse wool fibre. This fibre is mainly derived from the sigika type. has the same length and diameter. Fibre length 80-90 mm; average diameter 25-3511. siga hair is close to merino fibres in terms of length and diameter and is used in the combing-spinning system.

Metis. It is obtained from a type mixed with fine-wool sheep breeds - mestizo. Metis fibre is divided into 4 classes:

1. the fibres belonging to the class have the same structure in terms of length and thickness, embodying the properties of merino fibres;
2. the class wool fibres are the same in length and diameter, but, to a lesser extent, merino fibres;
3. The fibres of the class do not have the same structure but are composed of semi-coarse.
4. the class is not uniform, consisting of coarse, fluffy, transient hair fibres and hair, and sometimes in the form of dead wool fibres.

Coarse wool fibre. The main coarse wool fibres produced in Russia are Ordovician, Turkmen, Iomud, Bukhara, Tushinskaya, Lezginskaya, Avarskaya and Darginskaya [8]. It is grown mainly in Kazakhstan, Uzbekistan, Kyrgyzstan and the North Caucasus. Working with coarse wool fibres is a bit more complicated and does not take on the dye itself, it is mostly dead and dry in appearance. There will be more loss during processing. The share of the total amount of wool produced in the republics of the Commonwealth of Independent States by categories is as follows: fine 60-63%, semi-fine 10-12%, semi-coarse 5-7%, coarse 16-18% [9].

The fibre that covers the surface of sheep, goats, camels and other types of animals is called wool. In our country, the bulk of wool (95-97%) is collected from sheep, partly (2-3%) from goats, and the rest from camels [10].

The current number of these animals in Uzbekistan is as follows:

The total number of sheep is about 13.0 million.

Including: Jaydari - 6.0 mln.

Hisori- 0.7 mln.

Pomesi- 0.5 mln. Karakul - 5.8 million

Goats, total - 3.0 mln. over the head

Including: Junli - 0.3 mln.

Pure wool- 0.1 mln.

Coarse wool - 2.6 mln.

Camels, total - 19.0 thousand heads
Including single-breasted - 6.0 thousand.
Double-breasted - 4.0 thousand. hybrids - 9.0 thousand.
Instead of $ 7.0 million in 1991, it spent $ 10 billion last year. dollars and increased 120-fold. Today, light industry products are exported to more than 40 countries around the world.
In the livestock sector, sheep breeding is the most common, and wool is cut in the spring and autumn seasons.
Indicators of sheep wool produced in Uzbekistan are given in Table 1.

Table 1. Sheep wool indicators

breed	Wool type	On average, sheared in 1	Natural long	Jun rang	Work	Demand in the market
Black Lake	Different types	1.8-2.0 kg	avg.16	From white to black	Carpet felt	Average
Jaydari	In the structure of the crop of	2.0-2.5 kg	avg.15	Different	Felt and others	less
Hisori	Very rough in	0.8-1.2 kg	06.avg	Different	Felt	Very little
Mixed	Half thin, half rough	2.0-2.5 kg	Oct. 15	White is a light colour	Suknogila m et al	Good

Centralized joint ventures in the system of Uzbek Karakuli are engaged in the production and processing of this wool:
“Kyzylkum VUUL Tex” - (Navoi region - up to 1500 tons),
“Keles jun” - (Tashkent region - up to 1500 tons),
“Golden wool” - (Tashkent region - up to 1300 tons), “Komteks POOSh” - (Bukhara region).
Uzbek Karakol exported 2,509 tons in 2011, washed wool was sold.
These measures will help increase the efficiency of this area, increase export potential, create new jobs and improve the living standards of the population.
The state of wool production, storage and processing in Uzbekistan.
Wool production is carried out by private entrepreneurs. Wool evaluation is done according to old standards;
There are only a few enterprises for wool preparation, cleaning, sorting and sale - in Keles, Navoi, Tashkent;
There are wool washing enterprises in Navoi, Karshi and Fergana.
There are small wool processing enterprises in several cities, such as Tashkent and Zarafshan.
The process 5-10% of the wool produced.

In some regions, karakul sheep are bred and bred. Indigenous people produce carpets and rugs from 20% of karakul wool. More than 60% of the wool is left over. This serves as a resource for improving the living standards of small farmers and rural women [13].
Black lake skin is the main product of black lake sheep. Karakul is a skin in which lambs are slaughtered in 1-3 days, with skin fibres of different lengths and shapes of wool fibres. Karakul is used in the manufacture of coats, caps, collars and other garments [14.15.16.17].
Depending on the colour of the black lake, it will be black, blue, purple, white, rose, brown, and coloured. Black colour can have different pigmentation. Black skin also includes skin with white spots not exceeding 12 cm^2 in area. The blue colour consists of a mixture of white and black wool fibres. They are divided into three shades depending on the ratio of their number: light blue, medium and dark blue. It has a light blue hue and a milky colour. In the middle blue, there are blue, silver, brick, and purple colours. Dark blue will have pearly, whitish hues. Sur colour is determined by having different colours along the length of the wool. There are three types of Sur: Bukhara, Surkhandarya, Karakalpak. Silver, gold, and purple colours in Bukhara; Bronze, amber and white gold colours in Surkhandarya; In the Karakalpak, there is a variety of bulbous, steel, lunar and apricot blossoms. The peculiarity of the Bukhara suri is that the beginning of the wool fibre turns black, and the Surkhandarya suri is based on brown. The main feature of this sur is that the beginning of the wool fibre is dark and the upper part is sharply hungry [18-20].
It can make a significant contribution to the economy of the republic through the primary processing of wool fibre with the help of chemicals. Primary chemical treatment of local wool fibres by chemical methods - the development of effective washing technologies, and the removal of natural waste and contaminants from the washed wool fibre are achieved.
The purpose of washing is to remove various types of waste, natural oil residues, and mineral waste from wool fibre materials. The complex composition of the waste, in addition to natural waste, also requires the selection of special technology and equipment for the preparation of starch, its hydrolysis products, PVS, PAA, mineral oil, etc., which are used in enterprises. The composition of the washing solution consists of surfactants and soda. Under the influence of soda, the fat-wax in the fibre becomes soluble, while the surfactant emulsifies the fat-wax in this soluble state to ensure its release from the fibre. Various surfactants and soap solutions were used to wash the local wool fibre.
Wool processing appeared in human history thousands of years before the production of textiles. Handmade yarn and fabric weaving began in India, China, Egypt, and Central Asia several thousand years BC. Archaeological excavations in Khorezm have

uncovered excavations dating back to the first millennium BC. Today, the world produces more than 270,000 tons of wool, a third of which comes from Australia, the rest from the CIS countries, New Zealand, Argentina, South Africa, Uruguay, Turkey and the United States.

In order to obtain yarns from natural wool in the production of yarn, yarn is obtained in the countries of the world mainly from yarns of fine linear density. A review of the literature in recent years has shown that local wool fibres are mainly coarse and coloured wool fibres and are not used in the textile industry. However, it is important to process raw wool at the required level and introduce it to the textile industry.

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