MODERN CONDITION OF CLASSIFICATION OF COTTON FIBER AND ITS PRODUCTION

Kurbonkul Karimkulov
Higher Military Customs Institute,
Customs Committee of the Republic of Uzbekistan

Abstract

The given paper is devoted to studying a role of Customs chemical expertise in examination and definition of the international commodity codes. Methodical recommendations on application of Customs chemical expertise of cellulose and its products in the international economic relations are developed. Here normative documents of expertise of cotton cellulose are resulted.

Key words: classification, Customs expertise, categorization, Goods Nomenclature of foreign economic activity, export, import, cotton fiber, the length of fiber, cellulose.

Introduction

The Republic of Uzbekistan is the state of production of cotton fiber. It takes the fifth-sixth place by the world production of cotton fiber and the second place after the USA by its export. Cotton fiber and its products are the main strategic goods of the Republic. After cotton processing it is possible to receive the cotton fiber, wastes of cotton plants, wastes of textile industry, cotton lint, cotton wool and many other products and wastes. The problems connected with goods classification according to the Goods Nomenclature for foreign economic activities of the Republic of Uzbekistan (further – the Goods
Nomenclature) appear while exporting the above mentioned products.

It's known that the countries listed below produce the cotton fiber and its products. They are the USA, Mexico, Brazil, Turkey, Australia, Syria, Egypt, Pakistan, India, Uzbekistan, Tadzhikistan, Turkmen and others. At present Uzbek cotton fiber is found not only to yield by consumer characteristics, but also to excel by some features the quality of cotton fiber produced by the largest cotton productive countries as the USA, India and China.

The Republic had to solve the difficult problems of supporting and further strengthening the position of Uzbek cotton fiber in the world market. The efforts of government of the Republic were directed to modernization and improvement of the whole cotton branch, commencing from fancying the new selection sorts of the cotton plant and finishing with the efficient policy of cotton fiber marketing in accordance with the modern market mechanisms.

The core element of the policy of the government aimed at increasing of competitiveness of cotton fiber was a support from the Ministry of agriculture and water management and the selectors of the Republic, who in these years undertook the range of the drastic measures to improve the sort composition of the cotton plant and to fancy new early-ripening, higher harvest, firm to diseases and vermin sorts with high quality and share of the fiber output, as well as to prepare elite material for undertaking efficient cultivar changing.

1. Experimental results

It is known from literature that for quality analysis of cotton fiber different modern methods of analysis and various instruments are used. We give some examples typical for all countries growing cotton. The measurements of the qualitative features are executed by exact speediest methods, which are usually identified as "Classification HVI".¹

Testing cotton began in 1920, but the velocity of acceptance has noticeably increased since the beginning of 1990, when the USA have shifted by to 100% testing cotton fiber with the help of HVI system. Within the 61st plenary session in Cairo in 2002 the representatives of the producers and consumers came to the common conclusion that cotton industry needed to move forward to accepting the systems of estimation of fiber quality based on the instruments, but within the 62nd plenary session in 2003 in Gdansk they took a decision that for standardization of test results it is necessary to conclude an international agreement on the use of the systems of cotton quality estimation by means of instruments.

About one third of world production of cotton fiber is at present checked with the help of instruments at a level of a producer, and this percent is growing. We believe that for the following five years more than half of the cotton production in the world will be estimated using the HVI system. Highly-powered instrument HVI is a highly-automated module system for measurement and determination of physical features of textile fibers and, primarily, of cotton fiber.

The world cotton industry developed more than two centuries in the manner of

independent national industry often on the base of local rules and trade procedures, units of measurement and internal standard of quality. The size of bales and their density differed in miscellaneous countries. China releases both 80 kilo bales and 225 kilo bales. The standard of weight in South Asia is a 170 kilo bale, 400 pound bale is normal in West Africa, 480 pound bale is accepted in the USA, 227 kilo bale is a standard in Australia and 720 pound bale is in Egypt. The standards of quality differ in miscellaneous countries, including universal cotton standards and multiple national standards, supported by the national organizations in many cottons-growing countries. Some countries have qualitative parameters in figures, which unite color, texture and sort in one category, others use letters. In some countries qualitative standards are differentiated by sorts, in the other countries it is a division between the cotton of saw and roller ginning. The different standards of quality do not have the concordant correlation allowing to make an exact comparison of different sorts of cotton and its products.

The cotton plant itself, as a live plant, with its acclimatization, sorts and moisture nutriment as well as increasing its fibers and lubricity together with speeding up the periods of ripple with reference to different light weather forecast conditions are researched by many biologists, chemists, physicists in all the growing-cotton countries of the world. The cotton plant, as the most important technical plant, has not exhausted its own possibilities, but, on the contrary, reveals its own new, inimitable working qualities. In the light of the foregoing considerations, during determination of the commodity code of cotton fiber it is necessary to take into account the latest achievements of the science in the field of breeding and creation of its early-ripening sorts as well as economy watered resources together with keeping in mind its natural characteristics as a natural polymer, residing in unceasing biological renovation and improvement.

In one pound of the cotton it can be kept till 100 and more millions of fibers. Each fiber is an offshoot from a separate hutch, which develops on the surface layer of the cottonseed. At the early stage of its growth a fiber lengthens at the full length like a pipe with a thin wall. So far as a plant is ripening, the wall is thickened by means of the cellulose deposition, leaving cavity in the centre. When the period of growing ends and live material dies, fibers decay and twist around their own axis.

It is known from the literature that fibers by length of 29-32 mm are used in China and the Republic of Korea for production of fabrics in the textile industry. In the Republic of Uzbekistan, according to All-Union State Standard the shortest fiber is equal to 29.2 mm, so at the world market the Uzbek cotton fiber is considered to be popular for production of fabrics.²

As a result of a complex study of physic-chemical and mechanical characteristics of fiber we have proved the need for classification of cotton fiber and its products according to the Goods Nomenclature. Herewith it is necessary to come from such parameters as a length of fiber, a mass fraction of faulty and weedy admixtures, a linear density, moisture, a rate of maturity, molecular mass, viscosity of solutions etc. The requirements of the international standards stipulate that the length of a cotton fiber is considered to be the

main parameter. In other words, it is reasonable and essential to adjust the state standards practically used and the standard specifications applying to cotton fiber and its different marketable products in correspondence with requirements of the international standards. We have designed the methods of the determination of new commodity codes of cotton fiber and its products on the base of their chemical composition, which legally protect economic interests of the Republic of Uzbekistan.

During the researches it is for the first time that miscellaneous sorts of cotton fiber have been investigated and cellulose has been separated by the means of the well-known method. Besides the output of cellulose from various sorts of fiber has been studied.

In the Republic of Uzbekistan, Tadzhikistan and Turkmen the officials use the Goods Nomenclature for foreign economic activities of Eurasian Economic Community, i.e. 10 sign codes of goods.

While classifying cotton fiber and its products according to the Goods Nomenclature certain difficulties appear. In this connection we have studied the composition, physical and chemical factors of cotton in accordance with the requirements of O`zDSt national standard.

Firstly we have thoroughly researched the commodity codes of cotton fiber and its products according to the Goods Nomenclature: cotton, not carded or combed (commodity code 5201), cotton waste (including yarn waste etc.) (commodity code 5202), garneted stock of cotton (motes, cotton wastes) (commodity code 5202), products received after cotton fiber processing at textile plants (motes, cotton waste, Standard 1-17).

The production, for instance "wastes", received after processing cotton fiber at textile plants, length of fibers of which is from 5 till 29,2 mm is considered to be a valuable raw material for the reception of net cellulose.

According to the Republic of Uzbekistan O`zDSt two types of cotton fiber exist, which include middle fiber and long fiber altogether giving 5 sorts and 9 types that differ from each other by such physical-chemical parameters as the length, exterior, moisture, presence of weeds and others. Their commodity codes are defined according to the Goods nomenclature and they are classified within two commodity codes:

- 520100100 - hygroscopic or bleached,
- 520100900 - others.

We have found it reasonable to use a staple length of fiber as a basis for indicating middle fiber and long fiber sorts of cotton in compliance with the Goods Nomenclature. The decision of this task requires contributing the additions to subheading 5201000100 of the acting Goods Nomenclature. By its staple length cotton fiber and its products can be divided into the following groups: the length of cotton fiber equal to 0,99 - 1,01, 1,02-1,04, 1,05-1,10 and 1,11-1,17 inches belongs to middle-fiber types; the length of fiber equal to 1,18-1,23, 1,24-1,26, 1,27-1,29, 1,30 -1,32, 1,33-1,35 inches and more belongs to long- fiber types.

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4 In the world market the length of cotton fiber is measured in inch
Summary and concluding remarks

Therefore, in our opinion, while classifying cotton fiber according to the Goods Nomenclature of Foreign economic activities it is reasonable to take as the main criterion the length of fiber, that is why it is essential to insert additional code numbers 10 and 11 in subheading 5201000100.

Endnotes