сократились, а мировой спрос остается хорошим, что достаточно перспективно для экспорта на 2020 г.

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RUBBER: HISTORY OF DISCOVERY, IMPORTANCE

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The history of rubber is closely linked to many ancient civilizations. In ancient records, you can find references to its use in various forms. For example, the Mayans used rubber to make balls and shoes. The Amazon Indians used rubber to create waterproof coatings.

Some sources indicate that the discoverer of rubber is Christopher Columbus, but there is no reliable historical evidence that he brought rubber to Europe. Christopher Columbus was an Italian navigator who made his famous voyages in 1492, discovering a route from Europe to the Americas. His expeditions were of great importance to the history of geographical discovery, but rubber was not one of the materials he brought back to Europe.

However, Europe forgot about the South American curiosity until the 18th century, when members of a French expedition to South America discovered a tree that produced an amazing resin that hardened in the air and was named «rubber» (Latin resina – resin). In 1738 French researcher Ch. Condamine presented in the Paris Academy of Sciences samples of rubber, products made of it and a description of the methods of extraction in the countries of South America. Since then, the search for possible ways of using this substance began.

In 1839 Charles Nelson Goodyear discovered that by adding a little sulfur to rubber and heating it, it was possible to improve its strength, hardness, elasticity and heat and frost resistance. It is now the new material invented by Goodyear that is commonly referred to as rubber, and the process he discovered is called rubber vulcanization [3].

The Indians called the juice of the hevea tree «kauchu» – tears of the milky tree («kau» – tree, «uchu» – to flow, to cry). From this word was formed the modern name of the material – rubber.

The hevea tree, or Hevea brasiliensis, is one of the most valuable and widespread sources of rubber in the world. It is an evergreen tree of the molochai family that grows in the tropical regions of Southeast Asia, in Thailand, Indonesia and Malaysia.

Hevea trees grow to a height of about 30 meters and have an erect, sturdy trunk covered with smooth bark. The leaves of the hevea tree are large and shiny, while the flowers are small and delicately cream-colored. They attract bees, which play an important role in pollinating the trees.

However, the main value of hevea trees lies in their white sap, from which natural rubber is extracted. For this purpose, first incisions are made on the trunk of the tree, then the sap is collected in special vessels. The resulting sap is milky and contains rubber, which is the main component of rubber.

After the sap is collected, a concentration process takes place during which the water evaporates from it. The sap is then converted into latex, a liquid mass rich in rubber. The latex is then treated with the addition of acid so that the rubber precipitates out and can be separated from the other components [1].

The importance of rubber (which is the main constituent of rubber) is very great. Increasing quantities of rubber are consumed by the automobile, aircraft and tractor industries. Large quantities of it are used in the manufacture of drive belts and transportation belts, hoses and sleeves, electrical insulating products, rubberized fabrics, consumer products (footwear, sporting goods, toys), sanitary and hygiene products, and much more [2].

So, with the advent of new knowledge about the origin and processing of rubber, the rubber industry began to flourish. Plantations of hevea were established and new methods of its cultivation and sap extraction were developed. Rubber became a raw material for the production of various goods.

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