

Jute fibre and its importance

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Jute is a natural fibre popularly known as the golden fibre. It is one of the cheapest and the strongest of all natural fibres and considered as fibre of the future. Jute is second only to cotton in world's production of textile fibres.

Production : Jute is a bio degradable crop grown mainly in the Ganges delta. The crop of jute is rain-fed. It requires alluvial soil with stagnant water and does not really need pesticides or fertilizer. Jute requires 5–8 cm of rainfall weekly. Jute is harvested between 120 days to 150 days from sowing when the flowers have shed. Early harvesting gives good healthy fibres. Steeping is carried out immediately after harvest.

Retting is the process of extracting fibre from stem of the plants. The various ways of Retting are: Mechanical retting, chemical retting (boiling and applying chemicals), steam/vapor/dew retting, and water or microbial retting. Among them, the water or microbial retting is a century old but the most popular process in extracting fine fibres. However, selection of these retting processes depends on the availability of water and the cost of retting process.

India, Bangladesh, China and Thailand are the leading producers of Jute. It is also produced in southwest Asia and Brazil. China, Pakistan and India import large jute products and jute fibre quantities. Other countries such as Brazil, Germany, the Ivory Coast, Spain, France, the USA, Japan and the United Kingdom also import jute in significant quantities. As a matter of fact, the world's biggest production of jute is India. It is cultivated in Indian subcontinent, Thailand, China and Africa. Top 10 jute producing states in India are West Bengal, Bihar, Assam, Andhra Pradesh, Telangana, Orissa, Meghalaya, Nagaland, Tripura and Uttar Pradesh, these mainly confined to the eastern regions. West Bengal is the largest cultivator of raw jute alone figures in India. There are approximately 76 jute mills and about 4 million families are involved in the cultivation of raw jute in India.

Jute is most affordable fabric : These days, you will notice that jute has become more and more valuable. Jute, as a natural fibre, has many inherent advantages like

lusture, high tensile strength, low extensibility, moderate heat and fire resistance and long staple vegetable fibre that can be spun into strong, coarse thread, and one of the natural most affordable fibre and also second to cotton in variety of uses. It is used in making home textiles, floor coverings, cardigans, soft sweaters and espadrilles. Plus, uses also include for creating composites, geotextiles, high-performing technical textiles and home textiles. These products are all in different colors. If you are thinking of getting jute dyed, it is as easy as dyeing cotton as it is a natural fibre. Its fibres range from the off-white colour to brown colour. It is a biodegradable and eco-friendly. It has many advantages over synthetics and protects the environment and maintains the ecological balance. Jute has a low carbon footprint, it is biodegradable, feeds the soil and all parts of the plant can be used.

Importance of jute fibres in textiles : Jute is not only a major textile fibre but also a raw material for non-traditional and value added non-textile products. Jute is used extensively in the manufacture of different types of traditional packaging fabrics, manufacturing Hessian, sacking, carpet backing, mats, bags, tarpaulins, ropes and twines. Basic Jute fabrics and their products produced in jute mills in India are of standard constructions classified as the following.

Hessian cloth : Hessian cloth is a finer quality, plain woven fabric of one yard, is used for a wide range of applications and is exported all over the world both in the form of cloth and bags. These bags are used to store and pack varieties of goods and commodities such as pulses grain, potato, onion, sugar and tobacco, and available for packing goods up to 60 kg. weight.

Sacking cloth- Sacking cloth also known as heavy goods, made from lower grades of jute fibres. Sacking is heavy, loosely woven cloth in plain or twill weave, weighting from 15-20 ozs per yard of different widths. Sacking cloth is used for jute bags to pack food grains, sugar and Cement etc. in a weight range from 50 to 100 kg.

Bags - Shopping Bags are made from hessian or sacking



cloths which are coated with polythene film having handles, straps, chains in different shapes and dimensions. They are bleached and decorated with different artistic designs. Promotional bags are generally sample bags to promote items for sale. They are used specially for marketing.

Canvas- Canvas is the finest jute product, closely woven with best grades of fibre. Jute canvas is widely used in India for protection from weather. Canvas and Screin lamination with paper polythene is used in mines.

Hydrocarbon free jute cloth The Indian Jute Industries Research Association (IJIRA) with Indian Jute Industry has recently developed Hydrocarbon free jute bags- a food grade jute bags and cloths confirming to international standard specifications. Hydrocarbon free jute cloth is a hessian fabric free from the presence of hydrocarbon. It is made by treating jute with vegetable oil. These types of bags are extensively used for packing of coffee, cocoa, peanut beans or other food material. The bags are free from any kerosene smell. These bags have a great demand throughout the world.

Geotextiles- Geotextiles are jute cloths helps to prevent soil erosion and landslides. The Geotextiles are laid along the river embankments, sides, hill slopes etc. to prevent soil erosion.

Serim cloth- Serim cloth is an extremely light weight Hessian cloth. It is used in the felt industry to reinforce

the non-woven fabric. It is also used for strengthening paper with lamination.

Tobacco sheets- Tobacco sheets are made with Hessian cloths used for wrapping tobacco leaves for safe transit.

Hessian tapes and gaps- Hessian tapes and Gaps are made with Hessian cloth. Hessian cloth is woven with gaps at regular intervals and the cloths cut between the gaps to make small width taps.



Decorative items- Several decorative items, toys, wall hanging, paper, decorative bags, table lamps, furniture, and many more is made from jute fabric. Jute is also used as an eco-friendly substitute for packaging.

Entrepreneurship development in diversified jute products : Recently jute fibres are used in a wide range of diversified products: decorative fabrics, molded door panels and other innumerable useful consumer products. Many rural and urban unemployed and underemployed women and men are involved in a large number of jute development programs and projects are being implemented by various institutions and Government of India with UN agencies as UNDP to modernize the jute industries and it's all round development. The notable institutions in India, promoting, providing every assistance, R&D in the field of jute are: Indian Jute Industries Research Association (IJIRA), National Jute Board of India, Jute Manufacturing Development Council (JMDC), National Centre for Jute Diversification (NCJD) etc.

Other projects have been commissioned to examine the markets for geo-textile applications and projects to improve efficiency of production for various jute uses. Together these projects build capacity in jute processing and help position the fibre more strongly on international markets and increase awareness of the fibres potential.

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