6th – Fibre to Fabric II

From fibre to fabric

1. **Ginning:** cotton fibres are separated from their seeds by the process called ginning. These days, a machine called 'roller gin' is for ginning. A roller gin has steel pins fixed on two rollers which act as combs. When cotton is passed through a gin, the seeds are combed out and they get collected in a separate vessel.
2. **Spinning:** It is the process of changing fibre in to yarn. Hand spindle or takli and charkha are two hand operated devices used for spinning. Large scale spinning is done on a spinning machine.
3. **Weaving**: It is the process to convert yarn into cloth. The process of arranging two sets of yarns together to make a fabric with the help of a handloom or powerloom is called weaving. Weavers weaving on a small scale, use handlooms while on a large scale, cotton fabrics are made by big machines that run on electricity. These machines are called powerlooms.
4. **Knitting**: In knitting, a single yarn is used to make a piece of fabric. It can be done by hands using knitting needles. Nowadays, most of the knitting is done with the help of machines.

Jute: it is a long, soft, shiny, plant fibre obtained from the stems of the jute plant called 'patsun'. It is also called 'golden fibre.' The most useful properties of Jute are its biodegradability, durability and strength. In India, jute is cultivated in West Bengal (India's producer of jute), Assam and Bihar. It needs a well drained fertile soil like alluvial soil.

Cultivation of Jute:

1. The seeds of jute are sown m March or April. It is a rainy season crop.
2. Jute plant grows 6 to 12 feet in height. It bears yellow flowers. The plants are cut during the flowering stage. This is because good quality jute is obtained from its young stem, otherwise the stem becomes very hard and it is difficult to remove fibres from it.
3. After harvesting, the stalks of the plants are tied into bundles and left in stagnant water (pond) for about 20 days.
4. In stagnant water, bacteria grow easily. So, the sticky matter that holds the fibres to the inner part of the stem is eaten away by the bacteria. This process is called retting.
5. The fibres so obtained are dried in the sun and tied into small bundles. These bundles are sent to the mills. They are then spun to form fabrics.

Uses of Jute:

1. Jute is the second most important fibre after cotton. It is used for making gunny bags or sacks.
2. High quality Jute is woven into curtains, carpets, chair coverings and packing for linoleum.
3. Shopping bags, table mats, jute beads and jewellery are also made up of jute. Jute bags are also extensively used in packing cereals like wheat, jowar and maize.

Wool: it is obtained from the fleece of sheep or goats. Removing the fleece from sheep is called shearing. After shearing, the wool is cleaned and then by a machine. Thereafter the wool into fibres which are knitted to make woolen clothes.

ABHYAS Academy, Behind Pragat Shiv Mandir, Near Govt. College, Nishat Cinema Road, Ambala Cantt.
Ph No. +91-171-2631595, 9416541198, e-Mail: anusethi1968@yahoo.com Website: www. abhyasonline.in

Silk: It was first developed in China. It is obtained the cocoon of silkworm. Each silkworm spins a thread upto 800m long to make a cocoon. The cocoon is boiled in water to kill the worm. It is then unwound to get the silk fibre. The rearing of silkworm for production of silk is called 'sericulture'.

Other useful plant fibers

1. Coir: It is the fiber obtained from the outer covering or the husk of the coconut. Usually coconuts are left in water for a few months. The husk is then separated from the nut and beaten with wooden mallets to get the fiber.

2. Hemp: These fibers are obtained from the stem of hemp plant. These fibers are used in the production of ropes, carpets, nets etc.

3. Flax: Fibers obtained from the stem of the flax plant are woven to make a fiber called linen.

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