

# **LOTUS SILK: THE AMAZING FIBRE**

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# **This**

project is about the natural fibre lotus silk which is extracted from the stem of *Neulembo nucifera* or the lotus. It is the only micro fibre which is extracted from any natural resources. It has antibacterial and self-cleaning properties. Due to its antibacterial qualities, it can be helpful for the people who suffer from skin problems. This textile fibre is extremely breathable and soft and has a sophisticated texture. It has healing effect for skin problems. This fibre does not require any harmful chemicals for its production and so is an ecofriendly fibre. This fibre allows the contact between air and skin thus it is extremely comfortable and prevents skin diseases. As a micro fibre it is better than cotton and silk extracted from cocoons.

- Composition of lotus fibre – this fibre is mainly composed of cellulose( $C_6H_{10}O_5$ ), hemicelluloses ( $C_5H_8O_4$ ) etc.  
This fibre provides mechanical strength and rigidity to the leaf and flower. The leaf petiole and the stalk can grow up to 200cm (6ft 7cm). It is found that the petiole consists of more fibres than the stem holding the leaf. It is probably because the flower has more weight than the leaf and that the flower will bear fruit and seed, so it is the future of the plant.
- Why this project

- Today in this modern world we are using textiles which uses chemical substances for its extraction. The lotus fibre does not use these harmful chemicals, moreover lotus can be used for water treatment.
- This fibre is extremely breathable and has antibacterial qualities. It provides healing effect for skin problems
- Production of this fibre is not so costly; we can get good outcome by producing lotus in a larger scale.

- **PROCESS OF FIBRE MAKING**

**GATHERING** – Stems are collected preferably from a blooming lotus so that more amount of fibre can be collected from it. In our country these stems are waste product because we generally throw it after collecting the flowers and seeds.

➤ **EXTRACTION** –

1. Break the stem
2. Twist to expose fibres and windup on a role to form the yarn.

Tools used for yarn preparation –

1. Taku-for yarn preparation

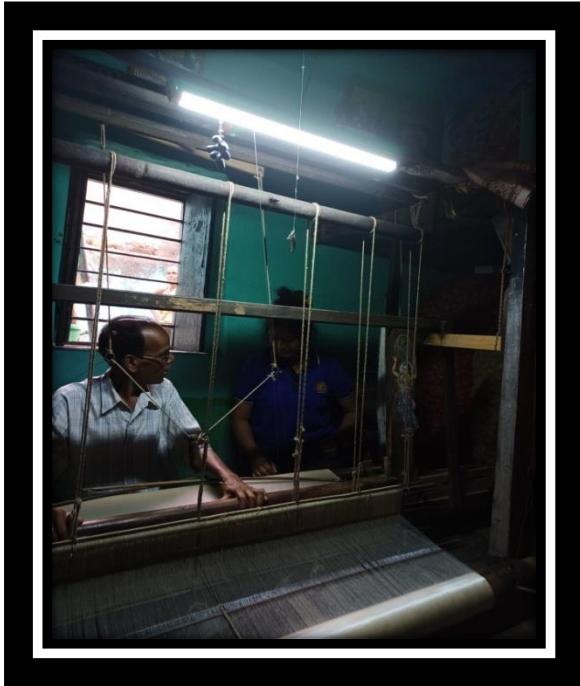
2. lataai-for strengthening the yarn and keeping excess yarn

3. Kurush-For weaving from the yarn

We also went to meet some weavers and spinners from our area and introduced the fibre to them. They were excited to work in this new fibre and ready to help us. With their help we could make a small piece of cloth from this fibre.







Lotus fibre has a good chance to stand in the market also it can provide employment to many rural people who are traditional weavers. Naturally lotus is available in abundant quantity in Bengal, so we do not have to buy the stems. If

lotus fibre is produced in large quantities, then the clothes made from this fibre could be economically feasible.

How to produce lotus fibre in large quantity (mass production )

Some important topics are to be cleared before starting mass production.

- i) Cost effectiveness = If this fibre is economically feasible or not.
- ii) Trained artisans= To see if people can make clothes from this fibre.
- iii) Availability of raw material= If the raw materials required for the production the goods are available or not.

Keeping these three points in mind, we see that raw materials are available with us in abundant quantity.

As the use of these fibre is not popular in India, trained artisans are not present, but the weavers working with tassar, muslin or any other silk can use these fibres. Many weavers who have lost their jobs are willing to work with this fibre. Lotus stems are considered a waste in most places of India, so the cost of raw material is not much



MATERIAL	COST (IN RUPEES)	WEIGHT (PER KG)
Stems	10	5(weight of stem)
At Spinners	40	0.05(weight of fibre)
At weavers	200	0.01(weight of threads)
Extracting the fibre	300	5(weight of stem)





Thank You