

# BIO DEGRADABLE SANITARY PADS FROM BANANA PSEUDO STEM WASTE.

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## INTRODUCTION

These days everybody is concerned with creating the eco-friendly environment by reducing the environmental problems and natural pollution. Apart from this, health and hygiene is also very much important for human beings. The utmost pollutions are from textile industry, dye industry and healthcare industry. Among these, healthcare wastes are the major pollution that will create deliberate complications to the humans. One major problem is the manufacturing and clearance of sanitary pads. These pads produced by the companies, is not degradable and cause complications to women. India being a developing country has 323.6 million females between the age group of 15-49. They place these pads next to the most delicate and absorbent tissue in their body. They spend at least 20% of their life with these sanitary pads. Further, after each harvest farmers either burn banana pseudo stem discarded stems which causes air pollution or they have to pay additional labour to remove them from their farms. In order to overcome these problems, here we can use sustainable sanitary pads by choosing alternative natural material for the production. Recently, an attempt has been made to produce sanitary pads from banana fiber, a natural absorbent fiber. It is expected that incorporation of banana fibers provides antibacterial property and improve the retentiveness. Other important properties are its absorptivity and bio degradable. It has no negative effect on environment and it is considered as eco-friendly fiber.

## MATERIALS:

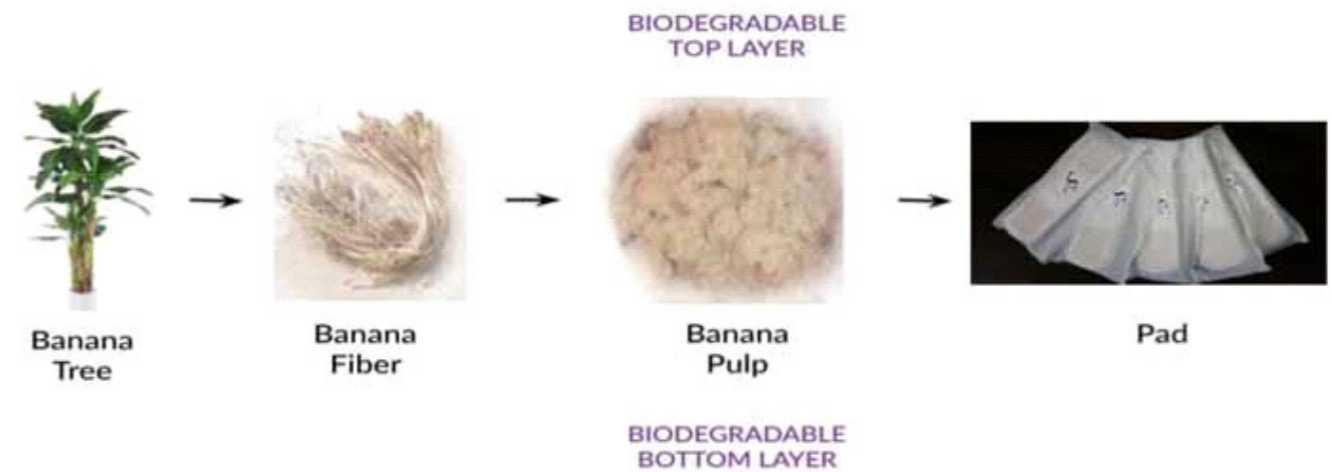
Sanitary pads contain multilayered structure and each layer should have some specific function. Banana fiber, organic cotton, muslin cloth and canvas cloth were used as a source of material. Banana fiber is naturally occurring material and completely degradable and poses no side effect to humans and environment. Organic Cotton as top layer is one the generally prompted crude material in pad due to its non-aggravation, tissue-friendly and prevalent fluid maintenance properties. Cotton material keeps away moisture and keeps skin dry and make skin comfort .

## METHODOLOGY:

Extraction of banana fiber from the pseudo stem of the plant is done manually. After extraction, the fibers are made to cut into fine chops and then it is allowed to boil with 150 mL of distilled water and 5 gram of sodium hydroxide for an hour. The mixture is then cooled for about 1 and half hour to make a thin sheet. The organic cotton was placed on to the thin banana sheet and then it was covered by the muslin cloth. The softened canvas cloth is used to wrap the entire sheets and then the corner of the canvas cloth in the pad is allowed to stick using heat or else stitches can be made in the corner of the pad.

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Steps from extracting banana fiber from pseudo stem to make sanitary pad.

## CONCLUSION

Recently, natural resources are gaining attention in solving the problems faced by the people around the world. This study proved that the replacement of non-degradable material with the biodegradable material for developing hygienic feminine products is eco-friendly and cost effective. Use of natural material in pads will be cost effective and it can be affordable by the lower income people, we can find a suitable solution to make the world better for future generation.

