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Project Title

A Zero Plastic Sanitary Napkin Fabricated with Treated Agro Residue as Absorbent and Herbal Components.

Objective

To produce a Zero Plastic Sanitary Napkin that is highly Bio-degradable and possess anti-cancerous property using *Arachis hypogaea* and *Asparagus racemosus* respectively.

Method

- There are three main layers in the sanitary napkin. The pulverized groundnut shells are treated with the optimized concentration of alkali to enhance their absorption efficiency.
- The extract of the roots of Shatavari is spray coated in the absorbent material which enhances the anti-cancer and anti-microbial properties.
- The bottom layer, also known as the hydrophobic layer is coated with the wax. This enhances flexibility and prevents the outflow of moisture from the napkin.
- Each and every component is significantly selected and optimized in order to ensure the welfare of menstrual hygiene and complete biodegradability of the health care product.

Outcome

- The proposed sanitary napkin is completely biodegradable.
- Addition of Shatavari renders Anticancer and Anti-microbial properties.
- Our absorbent layer is made with treated agro-waste (Groundnut Shells) for better absorption, playing a major role in the cost reduction, which ultimately paves way to be more affordable to all.

Conclusion

- The roots of Shatavari externally, nurtures the mucous membrane, acts as a blood cleanser, nourishes the ovum and supplies female hormone.
- The extract of the root of Shatavari will be spray coated on the top layer of the sanitary napkin and when they are exposed to the body fluid, the above-mentioned therapeutic properties of the herb are meant to be actional.

- The Novel absorbent composed of the shells of *Arachis hypogaea* is treated with optimized concentration of alkali, to enhance the efficiency of absorption.
- In order to ensure the welfare of menstrual hygiene and complete biodegradability of the health care product, all components included in the Zero Plastic Sanitary Napkin are non-plastic.

Implementation:-

- The proposed Sanitary Napkin is available in diverse sizes and gauges.
- Both the comfortability and the hygiene level of the product is high.

