



ECO-FRIENDLY RASH CREAM FORMULATION USING BANANA PEEL (MUSA ACUMINATA), ALOE VERA (ALOE BARBADENSIS), AND CACTUS (OPUNTIA FICUS-INDICA) EXTRACT

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ABSTRACT

This study explored the potential of Banana Peel (*Musa acuminata*), Aloe Vera (*Aloe barbadensis*), and Cactus (*Opuntia ficus-indica*) Extract for Eco-Friendly Rash Cream. Plant extracts have been widely studied for their antioxidant, antimicrobial, and anti-inflammatory properties, making them promising ingredients for rash treatment. Banana peel extract, when combined with aloe vera, demonstrated significant anti-inflammatory and moisturizing properties, making it effective in soothing skin rashes. Additionally, cactus extracts' antioxidant qualities aid in defending the skin against oxidative stress, which can exacerbate inflammation and irritation and hasten the healing process. The study aimed to investigate the composition of Aloe Vera, Cactus extract and banana peel in the processes involved in extracting the active compounds and formulating the topical cream. These Rash creams were tested on Wistar rats with experimentally induced skin rashes. The rats were monitored for changes in skin rashes frequency and skin redness to evaluate the efficacy of the creams. The results showed that the cream containing 15% Banana Peel Extract, 22% Aloe Vera Gel, and 7.5% Cactus Extract

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INSTABRIGHT e-GAZETTE

ISSN: 2704-3010

Volume VI, Issue IV

March 2025

Available online at <https://www.instabrightgazette.com>



exhibited the most pronounced effects. Rats treated with this cream displayed significantly reduced scratching frequency and skin redness over the five-day observation period compared to the control group and the other treatment groups. Statistical analysis using a one-way ANOVA test confirmed the efficacy of the higher concentration cream. Further research is needed to explore the full potential of this natural remedy and optimize its use for human skin health.



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