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Detoxification Test of Activated Carbon Body Scrub Formulation From Banana Peels (*Musa Sp*)

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ABSTRACT

Bananas (Musa sp), an easily cultivated plant with popular fruit utilization, led to the accumulation of banana peels as waste. Based on research findings from the previous year, it was stated that banana peels had the potential to serve as a fundamental material for activated carbon for detoxification, with an ability to absorb harmful ammonia reaching 96.68%. This study aimed to examine the influence of varying concentrations of activated carbon from banana peels (Musa sp) on the detoxification process in body scrub formulations. This research utilized an experimental approach, employing a quasi-experimental time series design. The body scrub formulations were divided into three groups with concentrations of activated carbon from banana peels (Musa sp) namely 5% (F1), 10% (F2), and 15% (F3). Three body scrub formulations underwent detoxification testing based on iodine absorption. The results of the detoxification test were statistically analyzed using One-Way ANOVA, to observe the effect of varying concentrations of activated carbon from banana peels (Musa sp) on body scrub formulations. The research findings indicated that the varying concentrations of activated carbon from banana peels (Musa sp) in the body scrub formulations influenced detoxification efficacy, with a significant value of < 0.05. The absorption capability of activated carbon in each formula strengthened as its concentration increased within the formulations.

Keywords: Banana, Body, Carbon, Detoxification, Formulation, Scrub