# *THE EFFECT OF GREEN MUSSEL SHELL (Perna viridis) POWDER PROVISION ON THE GROWTH OF Trichophyton mentagrophytes*

Veny Meliawaty Sukma

P17334117081

## *ABSTRACT*

*Dermatophytosis is a superficial mycosis infection that invades keratin-containing tissues such as stratum corneum, epidermis, hair, and nails. It is identified based on microscopic colonies and morphological features on growth media. To support the growth of fungus to reach optimal growth, it is necessary to add nutrients to the growth media containing chitin from shells of green mussel (Perna viridis). The objective of this research is to determine the effect of green mussel shell powder provision on SDA (Sabouraud Dextrose Agar) media on the growth of Trichophyton mentagrophytes. This research implemented quasi-experimental method consisting of four treatments of green mussel shell powder concentration, 0% (control); 0,5%; 0,75%; and 1%. Each treatment was repeated 3 times and observations were made for 7 consecutive days. Data obtained as a result of fungal growth on SDA media which had been given green mussel shell powder were analyzed descriptively. Observations were performed on data concerning pigmentation, colony diameter, and sporulation. The results showed that the optimum concentration of green mussel shell powder for the growth of Trichophyton mentagrophytes was a concentration of 1% to produce a colony diameter of 25.33 mm with producing a yellow-brown pigmentation. Therefore, it can be concluded that the provision of green mussel shell powder to SDA media affects the growth of Trichophyton mentagrophytes.*

*Keywords: Perna viridis, chitin, Trichophyton mentagrophytes, SDA media*