

ABSTRACT

Mega Mardiyana, NIM: 1534050, 2019, The different numbers of *Trichophyton mentagrophytes* colonies on *SabaouroudDextrose Agar* (SDA) and *Sabaouroud Dextrose Agar* (SDA) with an addition of 3 grams glucose.

Background: The most common culture medium used to regrow and reproduce a genus of fungi is *SabaouroudDextrose Agar* (SDA) with a specific composition set. The present study aims to see the effect of glucose as the additional substrate in SDA culture medium to boost *Trichophyton mentagrophytes*. To be more specific, the main purpose is to investigate the effect of providing addition of 3 grams glucose on SDA medium to enhance the colonies numbers of *Trichophyton mentagrophytes*.

Method: The study is experimental research with research design of *posttest-only control design*. The sample used in this research is *Trichophyton mentagrophytes* which is a genus of fungi. The number of fungi is standardized using *Mac Farland* standard and diluted with more diluent until 10^2 . The data are obtained by calculating the colonies number of *Trichophyton mentagrophytes* on SDA medium and the mixture of SDA medium and 3 grams glucose.

Result: There are 32 samples which have been inoculated and calculated to get the colonies number of *Trichophyton mentagrophytes*. To be more specific, there is 16 sample of *Trichophyton mentagrophytes* which are regrown on SDA culture medium, while the rest 16 samples are regrown on the mixture medium of SDA and 3 grams of glucose. Paired t-test confirmed that the result of *sig 2-tailed* indicates 0,967 which is higher than the significance level ($\alpha = 0,05$) ($p > 0,05$).

Conclusion: The result shows that there is no significant difference on colonies number between the culture grown on SDA and the mixture medium of SDA and 3 grams of glucose, indicating the additional glucose does not provide any effect on colonies number.

Keywords: Glucose, *SabaouroudDextrose Agar*, *Trichophyton mentagrophytes*