

# THE EFFECT OF KAFFIR LIME PEEL (*CITRUS HYSTRIX*) ON THE NUMBER OF CUTLERY GERMS IN 2022

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## ABSTRACT

Sanitation of cutlery is influenced by factors including food handlers, facilities and infrastructure, and the washing process. The stages of washing cutlery are disinfection, one of which can use natural ingredients of kaffir lime peel which can reduce the number of germs because it contains flavonoids and saponins as antibacterial. This study aims to determine the effect of kaffir lime peel on the number of cutlery germs.

This study is an experiment with Posttest Only Control Group Design. The object of the study used 96 stainless steel spoons. The treatment group varied the concentration of kaffir lime peel at 0%, 20%, 50%, and 80% with 6 replications, soaking time for 3 minutes, and counting the number of germs. Data analysis used the *Kruskal-Wallis* test and *Mann-Whitney* test.

The results showed that the average number of germs at the concentration of kaffir lime peel solution was 0%, 20%, 50%, 80% of 909,1 colonies/cm<sup>2</sup>, 398,1 colonies/cm<sup>2</sup>, 8,3 colonies/cm<sup>2</sup>, 35,0 colonies/cm<sup>2</sup>. *Mann-Whitney* test found that the most significant effect on the number of germs on cutlery was a concentration of 50%. The pH of the kaffir lime peel solution is between 4-5 and the temperature is 28°C.

This study concluded that there is an effect of kaffir lime peel on the number of cutlery germs. Further research is recommended to increase the variation of immersion time with a solution of kaffir lime peel so that it is expected to reduce the number of germs on cutlery by the requirements of the Minister of Health.

.Keyword : Kaffir Lime Peel (*Citrus Hystrix*), The Germs Number, Cutlery