

ECO FRIENDLY WASTAFEL AS A SOLUTION FOR WASTE HANDWASHING WATER IN PANDEMIC

ABSTRACT

As long as vaccine development is still in progress, the world is faced with the reality of preparing to coexist with COVID-19. 5M (wearing masks, maintaining distance and avoiding crowds, and washing hands with soap, move away from the crowd, limit the mobility and interaction) is the main strategy in preventing COVID-19 that must be implemented by all levels of society, without exception. The government in its regulations requires that all public places and facilities have a means of washing hands. The rise of portable hand washing stations and the resulting waste that is disposed of carelessly can pollute the environment. In this research, we made an eco-friendly wastafel. The results of this study were a decrease in the pH level of wastewater before and after filtration from 8 to 7, the mortality of *Daphnia Magna* as a bioindicator in the resulting filtered soapy water was still alive while in soap wastewater all the *Daphnia Magna* died within 60 minutes., the absence of water surface tension in soapy water waste as evidenced by the water strider as a bioindicator of water surface tension. Meanwhile, the water from the filtration is a bioindicator, the surface tension of the water strider does not drown and is above the surface of the water, this proves that filtration of Water Strider can restore water surface tension. From these results, the researchers prove that the eco-friendly wastafel is very friendly and does not pollute the environment.

Keywords: Portable Hand Washing , Filter, Soap Waste, Mortality of Living Things, Water Surface Tension