

ABSTRACT

Tofu waste is the waste of soybean processing that is wasted because it is not formed into tofu. The tofu industry produces liquid waste containing many organic and inorganic components that can disrupt aquatic ecosystems and cause environmental pollution. Proper liquid waste treatment techniques before flowing directly into the waters need to be carried out to reduce the impact of environmental pollution. The phytoremediation technique is an alternative to the treatment of liquid waste using plants or hyperaccumulator microorganisms, such as Kiambang. The purpose of this study is to determine the time and effectiveness required by Kiambang plants to reduce levels of BOD, COD, TSS, pH, temperature, and NH_3 in tofu industr liquid waste . The medium used is 3 L of waste in a ratio of 2:1 (2 L of tofu liquid waste : water) in a container. Variations in the number of plants used were F1 (10 plants) and n F2 (20 plants) with an observation time of 14 days. The results showed that F2 raised the pH of wastewater to 8, lowered the BOD value by 95%, COD up to 81%, TSS 100 mg / L , and NH_3 0.015 mg / L within 14 days of observation . The use of Kiambang as many as 20 plants is effective in reducing levels of BOD, COD, TSS, and NH_3 in industrliquid waste.

Keywords: Tofu waste, Phytoremediation, Kiambang, BOD, COD, TSS.