ABSTRACT

Therefore, carried out preventive measures, prevention, and management. One way of waste treatment is using a system Temperature Phased Anaerobic Digestion (TPAD) system that produce biogas. The parameters used to measure the waste is chemical oxygen demand (COD). In this study tested the levels of COD on hydrolysis tanks in TPAD system. Tests were carried out by changing variables such as temperature and pH. There are five types of research that before entering the hydrolysis tank, after entering the hydrolysis tank without temperature and pH control, temperature control, pH control, and control of temperature and pH. Samples before entering the hydrolysis tank comparator COD value in the other samples. In the control sample without the temperature and pH decrease COD value of 24.1% of the sample before entering the hydrolysis tanks, temperature control samples decreased by 33.94%, pH control samples decreased by 43.52%, and the sample temperature control and pH decreased by 59.12%. Among the five types of the study sample temperature control and pH decreased the most.

Keywords: waste; COD; temperature; pH.