

## **ABSTRACT**

*Currently in our communities use of preservatives that don't fit often happens for example the use of formaldehyde as a preservative fish, where fish is a food that is easily damaged so needs to be done preservation to extend the shelf life. One of the natural preservatives that can be used is liquid smoke which is not harmful to the body. The research objective were applied the liquid smoke as a natural food preservative as well as to determine the influence of the concentration of the liquid smoke and storage temperatures to characteristics of the Tilapia.*

*The method of research were carried out determined concentration of smoke liquid 5%, 7,5%, and 10% and temperature storage 10°C and 25°C. The conducted observation covered microbiology test with total plate count test and sensory test of the gills's colour, flavor, and appearance.*

*The resulted of this research showed that concentration of the liquid smoke coconut shell influenced the total of microba but it didn't influenced to colour of the gills, flavor, and appearance of Tilapia. The temperature storage influenced the total of microba and color of the gills but it didn't influenced to flavor and appearance of Tilapia. The interaction between liquid smoke concentration and temperature storage didn't influenced to total microbes, color of the gills, flavor, and appearance of the Tilapia. The selected sample was Tilapia with concentration of smoke liquid 7,5% and temperature 10°C, during storage 0-2 day decreased levels of protein and increased the total microbia and contains Escherichia coli 0 APM/gram.*

*Keywords : Tilapia, concentration of liquid smoke, temperature storage*