## **ABSTRACT**

The objective of this research was to find a right ratio between the white oyster mushroom with tempeh flour and the addition of water in the production of mushroom sausage. The benefits from this research result is the existence of alternative from vegetable material as a substitution of meat in the production of sausage, develop products from white oyster mushroom and tempeh that have higher economic value, add insight and knowledge of researchers and become a diversified food product.

The experimental design used in the study is a randomized block design with 3x3 factorial pattern on three replications followed by Duncan's test for significantly different factors. Experiment variable consist of ratio between white oyster mushroom with tempeh flour (75%: 25%, 50%: 50% and 25%: 75%) and the addition of cold water (20%, 25% and 30%).

The main research results indicate that the ratio of white oyster mushrooms with tempeh flour affect the color, moisture content, protein content, fat content and the hardness of mushrooms sausage. The addition of water affects the smell, texture, moisture content, protein content, fat content and violence sausage mushrooms. The interaction of the ratio between white oyster mushrooms with tempeh flour and addition of water only affect the water content of mushroom sausage. The best result produce from 75%:25% ratio between white oyster mushroom with tempeh flour and 20% concentration of water added, resulted 60.06% water content, 2.48% of ash content, 14.10% protein content, 6.15% fat content and 12.59 mm/sec/50gram hardness.

Keywords: white oyster mushroom, tempeh flour, sausage