

ABSTRACT

THE INFLUENCE OF WHITE OYSTER MUSHROOM (*Pleurotus Oestreatus*) FORMULATION AND TAPIOCA TO PHYSICAL, ORGANOLEPTIC, AND CHEMICAL CHARACTERISTICS OF CRACKER

By

NOPENA FITRA

Cracker is a kind of snack made from material containing high content of starch, undergoing volume expansion, and forming a product with hollows at frying. White oyster (*Pleurotus oestreatus*) mushroom is a mushroom to consume from a kind of wood mushroom, and it has high nutrition content. The white oyster mushroom processing to be cracker product is one of product diversification efforts from mushroom. In making the cracker, it needs process of starch gelatin addition from tapioca before steaming cooking. The objective of this research is to find out the right formulation for mushroom and tapioca to produce cracker with best organoleptic, physical, and chemical characteristics.

This research used completely randomized group design with three repetitions. Treatments in this research were formulations between white oyster mushroom and tapioca in 7 levels; they were N1 (0% : 100%), N2 (10% : 90%), N3 (20% : 80%), N4 (30% : 70%), N5 (40% : 60%), N6 (50% : 50%), and N7 (60% : 40%). Homogeneity was tested using Bartlett test, and data addivity was tested using Tuckey test. Data were analyzed using analysis of variance to obtain error prediction, and significance test to find out the influences of treatments. If there were any significant influences, data were further analyzed using honestly significant difference in 5% and 1% levels.

The results showed that formulation N2 (10% white oyster mushroom and 90% tapioca) was the best formulation with expansion volume of 452,287%, crunchy texture, not typical white oyster mushroom taste, 7,20% (%db) water content, 1,03% (%db) ash content, 0,46% (%db) fat content, 1,66% (%db) protein content, 0,236% (%db) rough fibre content, and 89,409% (%db) carbohydrate content. However, the protein content did not meet the qualification of cracker standard quality (SNI 01-2713-1999).

Keywords: white oyster mushroom, tapioca, cracker