

## Abstract

The objective of this study was to produce tempeh from soybean residue by *Rhizopus oligosporus* for meat replacing. Fine soybean residue from soy milk processing has quite a lot of moisture. To reduce the moisture content, drying at 60 °C for 24 hours was done and measured the AW (water activity). AW average was in the range of 0.6. After that, inoculated soybean residue with the fungus *R. oligosporus* and incubated at 25 C for 18 hours till hypha covered soybean residue. Then assess the nutritional value of products by AOAC 1012. The compositions an Ash, Carbohydrate, Fat and Protein were 1.36, 11.03, 5.22 and 18.04 respectively which similar to the chemical composition of soybeans. Sliced tempeh to thin pieces and fried them until well cooked at 170-210 °C (about 3 minutes) and seasoned with salt. Sensory test was done by using 5-point Hedonic scale with 50 testers. Compared results of sensory evaluation of soybean residue tempeh with soybean tempeh. The scores of soybean residue tempeh for odor, taste, texture and overall acceptance were 2.76 , 2.14 ,1.72 ,2.04 , 1.94 and soybean tempeh were 3.94 ,3.9 ,4.22 ,4.14 ,4.04 respectively. The Results showed that soybean tempeh has been accepted by consumers in all aspects more than soybean residue tempeh. Soybean residue tempeh should be developed to the satisfied of the consumer.