

Abstract

Most of Tempeh is made from a soybean. Tempeh is cultured cake of beans or grains. It is made from fermented dehulled bean with *Rhizopus oligosporus*. Although soy bean tempeh is delicious and digestible, *R. oligosporus* can grow well in other legume seeds too. So this project aiming to study how to prepare tempeh from different legumes; they are groundnut, mung bean, kidney bean and cowpea.

Rhizopus oligosporus is able to ferment and grow on all legumes. Producing, the thick white mycelium covering the bean. Tempehs were deep fried palm oil for 2-3 minutes, depending on type of the legumes. All tempehs were rated in comparison with soybean tempeh. The result showed that groundnut tempeh was not significantly different from soybean. But chemical analysis showed that it contained the highest amount of fat and the lowest amount of protein among the 5 legumes used.