

ABSTRACT

Monika Rahayu 24020121420011. Providing Variations in Yeast Types for Proximate, Antinutrient and Organoleptic Analysis of Cowpea Tempeh (*Vigna Unguiculata*)(L.) Walp.) Brown Eye Varieties. Guidance of Endang Kusdiyantini and Wijanarka.

Tempeh is a traditional food made by fermentation and made from soybeans. Indonesia's soybean production is currently decreasing, making tempe food products increasingly expensive, which has an impact on food security. Making tempeh can use cowpeas. Cowpeas are easy to cultivate, contain quite high protein and are relatively affordable. Yeast plays a role in the fermentation process influencing the quality of tempeh. The aim of this research was to examine the provision of variant types of yeast to the proximate, antinutrient and organoleptic analysis of cowpea tempeh (*Vigna unguiculata*) L.) Walp) brown eye variety. In this research method, the types of yeast used were RAPRIMA brand yeast (R0), yeast from soybean tempeh flour (R1), rice media yeast (R2), cassava media yeast (R3). Proximate analysis consists of testing water, protein, fat, ash, carbohydrate and fiber content. Antinutrient analysis tests phytic acid levels. Organoleptic test of cowpea tempeh on color, texture, aroma and taste by 25 panelists using a hedonic scale questionnaire. The design used was a Completely Randomized Design repeated 3 times. Data analysis used a mathematical model design, calculation of proximate tests and antinutrient tests using anova analysis at a real rate of 5%. The results of the research showed that the provision of various types of yeast affected the proximate test of cowpea tempeh (*Vigna unguiculata*)(L.)Walp brown eye variety, moisture content(%) of RAPRIMA brand yeast 33.17; yeast soybean flour 38.61; rice media yeast 45.22; cassava media yeast 51.5; fat content (%) of RAPRIMA brand yeast 33.36; yeast soybean flour 25.31; rice media yeast 23.08; cassava media yeast 15.27; protein content (%) of RAPRIMA brand yeast 28.56; yeast soybean flour 30.68; rice media yeast 26.27; cassava media yeast 26.91; ash content(%) of RAPRIMA brand yeast 0.1; yeast soybean flour 0.07; rice media yeast 0.08; cassava media yeast 0.07; carbohydrate content (%) of RAPRIMA brand yeast 4.81; yeast soybean flour 5.09; rice media yeast 5.35; cassava media yeast 6.25; fiber content (%) of RAPRIMA brand yeast 17.54; yeast soybean flour 22.22; rice media yeast 19.94; cassava media yeast 22.22 Providing various types of yeast for cowpea tempeh (*Vigna unguiculata*)(L.)Walp brown eye variety affected the antinutrient test for phytic acid levels (%) 3 times the cowpea replications, an average of 0.3957; RAPRIMA brand yeast average 0.5368; soy tempeh flour yeast average 0.5083; rice media yeast 0.5602; cassava media yeast 0.5378. Providing variations in the type of yeast for cowpea tempeh (*Vigna unguiculata*)(L.) Brown eye variety of walp affected the overall organoleptic test. Cowpea tempeh was acceptable to the panelists. It was concluded that giving a variety of yeast did not have a 5% significant effect on the proximate test, giving variations of yeast did not have a significant 5% effect on the antinutrient test and giving variations of yeast had a significant 5% effect on the organoleptic test.

Keywords: Antinutrient, cowpea tempeh, inoculum, organoleptic, proximate.