

The Influence of Yeast Concentration and Soaking Duration on the Physical, Chemical, and Organoleptic Quality of Sword Bean Tempeh (Canavalia ensiformis L.)

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ABSTRACT

This research aims to examine the effect of the interaction between soaking time and yeast concentration on the physical, chemical and organoleptic quality of sword koro tempeh (Canavalia ensiformis). The research method used a factorial Randomized Group Design (RAK) with two factors. Factor I is the soaking time (8, 16, and 24 hours) and Factor II is the yeast concentration (0.5%, 1%, and 2% w/w). Data were analyzed using ANOVA and Duncan's Multiple Range Test (DMRT) at the 5% level. The results showed that the soaking time had a very significant effect ($P < 0.05$) on increasing water content, where 24 hour treatment produced the highest water content of 65.75%. The interaction of the two treatments significantly influenced the texture profile, protein content and acidity (pH) of tempeh. Organoleptically, a certain combination of treatments was able to produce tempeh with compact mycelium and a distinctive aroma that the panelists liked. This research concludes that standardization of soaking duration and precision of the yeast inoculum are the keys to producing high quality koro sword tempeh as a competitive alternative source of vegetable protein.

Keywords: *Koro Sword Tempe, Soaking Time Amount of yeast, Organoleptic*