

ABSTRACT

THE EFFECT CONCENTRATION OF *Lactobacillus acidophilus* and SAGO FLOUR TO SHELF LIFE AND SENSORY PROPERTIES OF SOY TEMPEH

By

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This study aimed to determine the concentration of *Lactobacillus acidophilus* and sago flour that extend shelf life and maintain the sensory properties of soy tempeh. This study used a Randomized Block Design Complete (RBDC) with two factors and three replications. The first factor is the concentration of *Lactobacillus acidophilus* which consists of 3 levels (1%, 1.5% and 2%), while the second factor is the concentration of sago flour which consists of 4 levels (0%, 0.4%, 0.8% and 1 , 2%). The data were analyzed by analysis of variance and further trials with HSD test at 5% significance level. The results showed that the concentration of *Lactobacillus acidophilus* by 1.5% and by 0.4% sago flour extend the shelf life and maintain the sensory properties of soy tempeh. Shelf life at these concentrations is 112 hours. This shows that the addition of soy tempeh *Lactobacillus acidophilus* by 1.5% and sago flour by 0.4% able to increase the shelf life of soy tempeh up to 58 hours.

Key words: soy tempeh, *Lactobacillus acidophilus*, sago flour.