

THE EFFECT OF FLOUR TYPES ADDITION ON SOYBEAN (*Glicine max*) TEMPEH INOCULUM ACTIVITIES

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ABSTRACT

*Tempeh is one of Indonesia's traditional foods which is processed through a fermentation process. Tempeh fermentation process is influenced by the quality of the tempeh inoculum. In the process of making tempeh, the inoculum commonly used is usar inoculum and LIPI. Besides that, producers usually mix the inoculum with flour. The addition of flour stimulate the growth of compact molds and produce quality tempe. This study was aims to determine the effect of types of flour addition to the activity of soybean tempeh inoculum (*Glicine max*). The method used in this study was an experimental method with a completely randomized design with 6 treatments, namely without flour, wheat flour, rice flour, jackfruit seed flour, tapioca flour and cornstarch which was repeated 3 times so that 18 samples were obtained. The parameters observed in this study were microbiological parameters, chemical parameters and organoleptic parameters. observed data were analyzed for variance with a 5% significance level using Co-Stat. If there was a significant difference, a further test of Honest Significant Difference wasis carried out. The results showed that the addition of rice flour was the best treatment in the tempeh making process based on water content of 60.71%, protein content of 17.93%, ash content of 1.46% and total mold 4.2×10^2 CFU/gram*

Keywords: Flour, Inoculum, Soybean, Tempeh

ABSTRAK

Tempe adalah salah satu makanan tradisional indonesia yang diolah melalui proses fermentasi. Proses fermentasi tempe salah satunya dipengaruhi oleh kualitas dari inokulum tempe. Dalam proses pembuatan tempe inokulum yang biasa digunakan adalah inokulum usar dan LIPI selain itu produsen biasanya mencampur inokulum tersebut dengan tepung. Penambahan tepung dapat merangsang pertumbuhan kapang yang kompak sehingga menghasilkan tempe yang berkualitas. Penelitian ini bertujuan untuk mengetahui pengaruh penambahan jenis tepung terhadap aktivitas inokulum tempe kedelai (*Glicine max*). Metode yang digunakan dalam penelitian ini adalah metode eksperimental dengan Rancangan Acak Lengkap dengan 6 perlakuan yaitu tanpa tepung, tepung terigu, tepung beras, tepung biji nangka, tepung tapioka dan tepung maizena yang diulang 3 kali sehingga didapat 18 sampel. Parameter yang diamati pada penelitian ini adalah parameter mikrobiologis, parameter kimia dan parameter organoleptik. Data hasil pengamatan dianalisis keragaman dengan taraf nyata 5% dengan menggunakan *Co-Stat*. Apabila terdapat beda nyata, dilakukan uji lanjut Beda Nyata Jujur. Hasil penelitian menunjukkan bahwa penambahan tepung beras merupakan perlakuan terbaik pada proses pembuatan tempe berdasarkan kadar air 60,71%, kadar protein 17,93%, kadar abu 1,46% dan total kapang $4,2 \times 10^2$ CFU/gram

Keywords: Inokulum, Kedelai, Tempe, Tepung Flour