

Shavina Yuniar Putri. NPM 210331100068. Penggunaan Inokulum Probiotik Dalam Pembuatan Bungkil (Makanan Fermentasi Tradisional Kelapa). Di bawah bimbingan **Prof. Ir. Umi Purwandari, M.App.Sc. PhD** dan **Hamzah Fansuri, S.ST., M.T.**

ABSTRAK

Bungkil merupakan salah satu produk fermentasi tradisional kelapa yang potensial dikembangkan sebagai pangan fungsional karena mengandung protein dan serat yang cukup tinggi. Namun, proses fermentasi bungkil tradisional umumnya dilakukan secara spontan tanpa penambahan inokulum probiotik, sehingga kualitas produk belum optimal. Penelitian ini bertujuan untuk mengetahui pengaruh penggunaan inokulum probiotik terhadap karakteristik fisik, kimia, mikrobiologi, dan sensoris bungkil kelapa. Penelitian dilakukan dengan menggunakan kelapa yang difermentasi bersama inokulum probiotik pada beberapa perlakuan, yaitu perendaman dengan konsentrasi inokulum berbeda (0%, 1%, 3%) dan tahap emplep. Parameter yang diamati meliputi pH, asam total, kadar air, formol, profil asam lemak, profil asam amino, jumlah bakteri asam laktat, uji sensoris, serta rendemen minyak. Hasil penelitian menunjukkan bahwa penambahan inokulum probiotik mampu menurunkan pH dan meningkatkan kadar asam total selama fermentasi. Kadar air dan rendemen minyak juga dipengaruhi oleh perlakuan fermentasi, di mana penggunaan inokulum probiotik menghasilkan produk dengan kestabilan yang lebih baik. Analisis profil asam lemak dan asam amino menunjukkan adanya peningkatan kandungan asam amino esensial tertentu, meskipun beberapa asam amino masih berada di bawah standar WHO. Jumlah bakteri asam laktat meningkat seiring dengan penambahan inokulum probiotik, yang menunjukkan efektivitas isolat 7.2 dalam mendukung fermentasi. Uji sensoris menunjukkan bahwa produk bungkil dengan penambahan inokulum probiotik memperoleh tingkat penerimaan yang lebih baik dibandingkan kontrol. Kesimpulan dari penelitian ini adalah bahwa penggunaan inokulum probiotik pada proses pembuatan bungkil kelapa dapat meningkatkan kualitas produk baik dari aspek kimia, mikrobiologi, maupun sensoris. Dengan demikian, inovasi ini berpotensi mengembangkan bungkil sebagai pangan fungsional yang lebih bergizi dan aman untuk dikonsumsi.

Kata Kunci: Bungkil Kelapa, Fermentasi, Probiotik

Shavina Yuniar Putri. NPM 210331100068. *Use of Probiotic Inoculum in the Production of Coconut Meal (Traditional Fermented Coconut Food).* Under the guidance of **Prof. Ir. Umi Purwandari, M.App.Sc. PhD** and **Hamzah Fansuri, S.ST., M.T.**

ABSTRACT

Coconut cake is a traditional fermented coconut product that has the potential to be developed as a functional food because it contains high levels of protein and fiber. However, the traditional cake fermentation process is generally carried out spontaneously without the addition of probiotic inoculum, so the product quality is not optimal. This study aims to determine the effect of the use of probiotic inoculum on the physical, chemical, microbiological, and sensory characteristics of coconut cake. The study was conducted using fermented coconut with probiotic inoculum in several treatments, namely soaking with different inoculum concentrations (0%, 1%, 3%) and the emlep stage. Parameters observed included pH, total acid, water content, formol, fatty acid profile, amino acid profile, lactic acid bacteria count, sensory tests, and oil yield. The results showed that the addition of probiotic inoculum was able to lower the pH and increase the total acid content during fermentation. Water content and oil yield were also affected by the fermentation treatment, where the use of probiotic inoculum resulted in a product with better stability. Analysis of fatty acid and amino acid profiles showed an increase in the content of certain essential amino acids, although some amino acids were still below WHO standards. The number of lactic acid bacteria increased with the addition of probiotic inoculum, indicating the effectiveness of isolate 7.2 in supporting fermentation. Sensory tests showed that the oil cake product with the addition of probiotic inoculum achieved a better level of acceptance compared to the control. The conclusion of this study is that the use of probiotic inoculum in the coconut meal manufacturing process can improve product quality in terms of chemical, microbiological, and sensory aspects. Therefore, this innovation has the potential to develop coconut meal as a functional food that is more nutritious and safe for consumption.

Keywords: Coconut Meal, Fermentation, Probiotics