

**“PENGARUH PENAMBAHAN EKSTRAK JAMUR TIRAM (*Pleurotus  
ostreatus*) SEBAGAI PENSTABIL ALAMI TERHADAP KARAKTERISTIK  
FISIKOKIMIA YOGHURT”**

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**PENGARUH PENAMBAHAN EKSTRAK JAMUR TIRAM  
(*Pleurotus ostreatus*) SEBAGAI PENSTABIL ALAMI  
TERHADAP KARAKTERISTIK FISIKOKIMIA YOGHURT**

Daffa Muhammad Nabil, Purnama Dini Hari, Novelina

**ABSTRAK**

Yoghurt merupakan salah satu produk susu yang menawarkan manfaat kesehatan. Meskipun yoghurt memiliki manfaat kesehatan yang besar, terdapat masalah umum yang dapat memengaruhi kualitasnya yaitu meningkatnya sineresis dan menurunnya viskositas sehingga diperlukannya bahan penstabil. Jamur tiram mengandung senyawa bioaktif  $\beta$ -glukan yang bersifat hidrofilik dan mampu berinteraksi dengan protein susu, membentuk jaringan yang lebih kuat dan stabil. Penelitian ini bertujuan untuk mengetahui pengaruh penambahan ekstrak jamur tiram sebagai alternatif penstabil alami terhadap kualitas akhir yoghurt. Perlakuan pada penelitian ini adalah penambahan ekstrak jamur tiram sebanyak (0%), (2%), (3%), (4%), dan (5%). Rancangan yang digunakan dalam penelitian ini adalah Rancangan Acak Lengkap dengan 5 perlakuan dan 3 ulangan. Data yang diperoleh dianalisis secara statistika dengan ANOVA (*analysis Of Variance*) dan jika berbeda nyata dilanjutkan dengan uji DNMRT (*Duncan's News Multiple Range Test*) pada taraf 5%. Hasil penelitian menunjukkan perbedaan persentase penambahan yoghurt penambahan ekstrak jamur tiram berpengaruh nyata terhadap viskositas, sineresis, *water holding capacity* (WHC), derajat keasaman (pH), kadar air, *droplet size measurement* dan organoleptik (tekstur). Perlakuan terbaik pada penelitian ini adalah perlakuan D penambahan ekstrak jamur tiram (4%) dengan viskositas (2074 cP), sineresis (14,58%), WHC (75,48), pH (4,13), total bakteri asam laktat ( $1,98 \times 10^9$  CFU/ml), kadar air (87,59), kadar abu (0,93), ukuran *droplet* homogen dan terdistribusi merata serta organoleptik warna 4,16 (suka), rasa 3,16 (biasa), aroma 4,04(suka), dan tekstur 3,8 (biasa).

**Kata kunci:** ekstrak jamur tiram, penstabil alami, yoghurt

# **THE EFFECT OF ADDING OYSTER MUSHROOM (*Pleurotus ostreatus*) EXTRACT AS A NATURAL STABILIZER ON THE PHYSICOCHEMICAL CHARACTERISTICS OF YOGHURT**

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## **ABSTRACT**

Yogurt is a dairy product that offers various health benefits. Despite its significant health advantages, there are common issues that can affect its quality, such as increased syneresis and decreased viscosity, which make the use of stabilizers necessary. Oyster mushrooms contain bioactive compounds like  $\beta$ -glucan, which are hydrophilic and capable of interacting with milk proteins to form a stronger and more stable network. This research aims to investigate the effect of adding oyster mushroom extract as an alternative natural stabilizer on the final quality of yogurt. The treatments in this study include the addition of oyster mushroom extract at (0%), (2%), (3%), (4%), and (5%) concentrations. The design used in this research is a Completely Randomized Design (CRD) with 5 treatments and 3 replications. The data obtained were statistically analyzed using ANOVA (Analysis of Variance), and if significant differences were found, further analysis was conducted using Duncan's New Multiple Range Test (DNMRT) at a 5% significance level. The results of the study showed that different percentages of oyster mushroom extract addition significantly affected viscosity, syneresis, water holding capacity (WHC), acidity (pH), moisture content, droplet size measurement, and organoleptic properties (texture). The best treatment in this study was Treatment D, with 4% oyster mushroom extract addition, resulting in a viscosity of 2074 cP, syneresis of 14.58%, WHC of 75.48, pH of 4.13, total lactic acid bacteria of  $1.98 \times 10^9$  CFU/mL, moisture content of 87.59, ash content of 0.93, a homogeneous and evenly distributed droplet size, and organoleptic scores of color 4.16 (like), taste 3.16 (neutral), aroma 4.04 (like), and texture 3.8 (neutral).

**Keywords:** natural stabilizer, oyster mushroom extract, yoghurt