

*Rhizopus oligosporus* merupakan salah satu jamur yang berperan dalam proses fermentasi tempe. Penelitian ini bertujuan untuk mengetahui pengaruh komposisi bakterioma *R. oligosporus* terhadap perubahan morfologi dan perilaku jamur, serta kualitas fisika dan kimia tempe. Antibakteri Kloramfenikol (30 µg/mL) dan Kanamisin (30 µg/mL) digunakan untuk mengetahui komposisi bakterioma jamur *Rhizopus oligosporus*. Komposisi bakterioma *R. oligosporus* dideteksi dengan *Ribosomal Intergenic Spacer Analysis* (RISA). Pertumbuhan jamur diamati dengan mengukur panjang miselia. Kualitas fisika tempe diamati dengan melihat perubahan warna dan tekstur, serta kualitas kimia tempe diikuti dengan menganalisis asam amino yang dihasilkan menggunakan metode *High Performance Liquid Chromatography* (HPLC). Hasil penelitian menunjukkan bahwa komposisi bakterioma *R. oligosporus* berpengaruh terhadap morfologi dan perilaku jamur, serta kualitas fisika, dan konsentrasi asam amino yang dihasilkan.

Kata kunci: bakterioma, *Rhizopus oligosporus*, morfologi jamur, kualitas tempe.

## ABSTRACT

*Rhizopus oligosporus* is one among the fungi that plays a role in the tempeh fermentation process. This study was aimed to determine the effect of bacteriome composition of *R. oligosporus* on changes in fungal morphology and behavior, as well as the physical and chemical quality of the tempeh. Chloramphenicol (30 µg/mL) and Kanamycin (30 µg/mL) were used to determine the composition of the *Rhizopus oligosporus* fungal microbiome. The bacteriome composition of *R. oligosporus* was detected by Ribosomal Intergenic Spacer Analysis (RISA). Fungal growth was observed by measuring mycelia length. The physical quality of tempeh was observed by looking at changes in color and texture, and the chemical quality of tempeh was observed by analyzing the produced amino acid using the High Performance Liquid Chromatography (HPLC) method. The results showed that composition of *R. oligosporus* bacteriome influenced the morphology and behavior of the fungus, physical quality, and the produced amino acid concentration .

**Keywords:** bacteriome, *Rhizopus oligosporus*, fungal morphology, tempeh quality