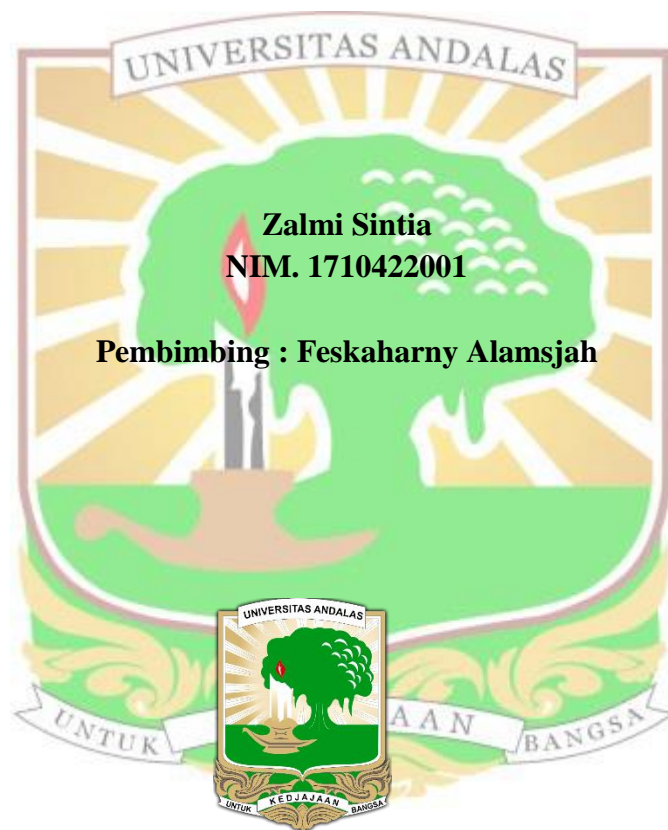


**SKRIPSI SARJANA BIOLOGI**

**ISOLASI DAN SKRINING BAKTERI PELARUT FOSFAT DARI RHIZOSFER  
TANAMAN PADI (*Oryza sativa* L.) VARIETAS PB 42**

**Oleh:**



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## ABSTRAK

Bakteri pelarut fosfat merupakan bakteri yang berperan dalam kesuburan tanah karena mampu melarutkan fosfat dengan mengeluarkan asam-asam organik yang mampu mengubah fosfat yang tidak larut sehingga dapat digunakan oleh tanaman. Penelitian isolasi dan skrining bakteri pelarut fosfat dari rhizosfer tanaman padi (*Oryza sativa* L.) varietas PB 42 telah dilakukan dari bulan Februari sampai Juni 2021 di Laboratorium Mikrobiologi Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Andalas. Tujuan dari penelitian ini adalah untuk mendapatkan isolat bakteri pelarut fosfat dari rhizosfer tanaman padi (*Oryza sativa* L.) varietas PB 42 dan mengetahui karakterisasi parsial serta potensinya dalam melarutkan fosfat. Didapatkan 19 isolat bakteri pelarut fosfat yang memiliki kemampuan dan potensi melarutkan fosfat yang berbeda. Isolat yang menghasilkan indeks pelarut fosfat tertinggi yaitu BPF-2 sebesar 2,94. Diperoleh empat isolat diplobasil Gram negatif dan satu isolat coccus Gram negatif. Semua isolat positif katalase. Satu isolat bersifat motil dan empat isolat bersifat non motil.

**Kata kunci:** Bakteri Pelarut Fosfat, *Pikovskaya*, Padi PB 42



## ABSTRACT

Phosphate solubilizing bacteria are bacteria that play a role in soil fertility because they are able to dissolve phosphate by excreting organic acids which able to change insoluble phosphate so that it can be used by plants. Research on the isolation and screening of phosphate solubilizing bacteria from the rhizofe of rice plant (*oryza sativa* L.) varieties PB 42 was conducted from February to June 2021 at the Microbiology Laboratory, Department of Biology, Faculty of Mathematics and Natural Sciences, Andalas University. The purpose of this research was to obtain phosphate solubilizing bacteria isolates of rice plant varieties PB 42 and to determine their partial characterization and their potency in dissolving phosphate. 19 isolates of phosphate solubilizing bacteria were obtained which have different ability and potential to dissolve phosphate. The isolate that produced the highest phosphate solubilization index was BPF-2 of 2,94. Four Gram negative diplobacilli isolates and one Gram negative coccus isolate were obtained. All isolates were catalase positive. One isolate was motile and four isolates were non motile.

**Key words:** Phosphate solubilizing bacteria, *Picovskaya*, Rice PB 42

