THE APPLICATION OF PHOSPHATE SOLUBILIZING BACTERIA (PSB) IN ENHANCING P AVAILABILITY FROM CONTAMINATED SOIL

RAJA NABIRA BINTI RAJA ZULKIFLI

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DECLARATION

This Final Year Project is a partial fulfilment of the requirements for a degree of Bachelor of Science (Hons.) Plantation Technology and Management, Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA.

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Name: RAJA NABIRA BINTI RAJA ZULKIFLI

I hereby declare that I have checked this project and in my opinion, this project is adequate in terms of scope and quality for the award of the degree of Bachelor of Science (Hons.) Plantation Technology and Management, Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA.

Signature: .....

Name of Supervisor: SALWA HJ. ADAM

Position: Koordinator Diploma
Fakulti Perladangan dan Agroteknologi
Universiti Teknologi MARA (Melaka)
Kampus Jasin, 77300 Merlimau
Melaka

Date: 28/7/2016

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RAJA NABIRA BINTI RAJA ZULKIFLI

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ABSTRACT

THE APPLICATION OF PHOSPHATE SOLUBILIZING BACTERIA (PSB) IN ENHANCING P AVAILABILITY FROM CONTAMINATED SOIL

The research was conducted on the application of Phosphate Solubilizing Bacteria (PSB), *Baciluss Sinensis* in enhancing P availability from contaminated soil due reduce the available P with increases level of heavy metals. The soil samples were obtained from paddy field at Merlimau, Melaka. The soil were contaminated with heavy metals such as copper sulphate and iron chloride and inoculated with Phosphate Solubilizing Bacteria (PSB). The media were planting with paddy the data was measured based of plant height and plant biomass. The total P was determine using wet digestion (Akinyle and Shokunbi, 2014) and available P were determine using Bray P method (Bray and Kurtz,1945). From the result study shown that the application of PSB on different level heavy metals has no significances different in term soil pH, plant height of paddy, root biomass and tiller biomass. Meanwhile, for the result Total P, Available P, heavy metals content and root length shown that were significances different after inoculation of PSB with increasing level of treatment. In conclusion, it can be conclude that the application of PSB on contaminated soil can enhance the available P in the soil that making it much more available for the plant uptake.