ANALYSIS OF FERTILIZER APPLICATION ON SOIL HEAVY METAL CONCENTRATION IN COFFEE PLANTATION

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Final Year Project Report Submitted in
Partial Fulfilment of the Requirement for the
Degree of Bachelor of Science (Hons.) Chemistry
in the Faculty of Applied Sciences
Universiti Teknologi MARA

JANUARY 2017

ABSTRACT

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Agricultural activities use a large amount of chemicals such as fertilizer and pesticides. The application of fertilizer may result in the increase of Cd, Cr, Cu, Zn and Pb. The objective of this study was to investigate the variability concentration of these heavy metals pollution in soil increases due to application of fertilizer. Then, this study also was done to analyze the impact of heavy metal concentration from chemical fertilizer using geochemical approaches and contamination factor. Samples of soil were collected from coffee plantation located at Pusat Penyelidikan Pertanian Tun Abdul Razak, (PPPTR) Jengka. The result from analysis using ICP-OES indicated that Cd, Cr, Cu, Zn and Pb concentrations in soil were slightly differences and increased due to fertilizer application. The level determined by geo-accumulation index is uncontaminated. While contamination factor parameter indicate all classes of heavy metals involved.

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