ISOLATION AND DETECTION OF *Pseudomonas* sp. FROM LOCAL SELECTED *ULAM*

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This Final Year Project Report entitled **"Isolation and Detection of *Pseudomonas* sp. From Local Selected *Ulam*"** was submitted by Nurul Faqiihah binti Nasary, in partial fulfilment of the requirements for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Sciences, and was approved by

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ABSTRACT

ISOLATION AND DETECTION OF *Pseudomonas* sp. FROM LOCAL SELECTED *ULAM*

Ulam can be defined as a part of plants consisting of leaves, shoots, stems, tubers, seeds, fruits and umbels eaten raw, distilled or boiled before. *Ulam* is also a must in food dish as well as it is able to open the appetite, also treat its high nutrition and used as medicine. However, these *ulam* are sold and sourced from various uncertain sources of origin and may be contaminated by the bacteria found on the ground or from the source of water during the cultivation and growth process. *Pseudomonas* sp. is one of the bacteria species usually can be found in plants and soils which are harmful to human. There were five types of local selected *ulam* used in this study which were *Centella asiatica, Cosmos caudatus, Anacardium occidentale, Ocimum basilicum and Ipomoea aquatica*. Those samples which were collected in Hulu Langat Selangor then being isolated on *Pseudomonas* Isolation Agar (PSI) at 37°C for 48 hours. From the isolation, the pure colonies were use in Gram staining for morphological characterization. Gram negative bacteria species have been proved by this method since the appearance were pink in color. Besides, the *Pseudomonas* sp. was successfully detected by specific primers of Pse435F and Pse686R through molecular identification which was from *Cosmos caudatus, Anacardium occidentale, Ocimum basilicum and Ipomoea aquatica*. Polymerase chain reaction was performed on all bacteria isolates presumptively identified as *Pseudomonas* sp. which amplified at 251bp fragments except for *Centella asiatica* sample.