LOCAL FRUITS WASTES AS A POTENTIAL CROP FERTILIZER

MAS IDAYU BINTI AHMAD

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

JULY 2018

This Final Year Project Report entitled **"Local Fruits Wastes as a Potential Crop Fertilizer"** was submitted by Mas Idayu Binti Ahmad, in partial fulfillment 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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Hafizah Binti Kassim
Supervisor
Faculty of Applied Sciences
Universiti Teknologi MARA (UiTM)
Negeri Sembilan, Kampus Kuala Pilah,
Pekan Parit Tinggi, 72000 Kuala Pilah
Negeri Sembilan

_____

Lili Syahani Binti Rusli
Coordinator of FSG661 AS201
Faculty of Applied Sciences
Universiti Teknologi MARA (UiTM)
Negeri Sembilan, Kampus Kuala Pilah,
Pekan Parit Tinggi, 72000 Kuala Pilah
Negeri Sembilan

_____

Dr. Aslizah Binti Mohd Aris
Head of Biology School
Faculty of Applied Sciences
Universiti Teknologi MARA (UiTM)
Negeri Sembilan, Kampus Kuala Pilah,
Pekan Parit Tinggi, 72000 Kuala Pilah
Negeri Sembilan

Date: _____

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ABSTRACT

LOCAL FRUITS WASTES AS A POTENTIAL CROP FERTILIZER

Malaysia is one of the largest fruit producers in Asia which make fruits stalls or vendors can be easily found almost in all streets in Malaysia. However, only inner parts of the flesh are savored by the community, while the nutrient-rich peels are often discarded and neglected. This study aim to investigate the nitrogen, phosphorus and potassium level in four selected fruits peels, which are guava, papaya, watermelon and pineapple, and to evaluate the potential of those selected fruits peels as an amendment for plant growth. Dried peels were tested for nitrogen, phosphorus and potassium level by using kjeldahl method and atomic absorption spectroscopy respectively. Fruits peels fertilizer together with other treatment, chemical fertilizer, was amended to plants (*Brassica sp.*) and the growth was observed until they mature. The results showed that number of leaves, length of leaves and height of plants treated with chemical fertilizer were respectively 9.20 ± 0.45, 9.46 ± 0.66 cm and 15.88 ± 0.91 cm, followed by fruits peels 9.20 ± 0.45, 8.98 ± 0.69 cm and 13.68 ± 0.58 cm and control with 7.00 ± 0.71, 5.12 ± 0.61 cm and 9.92 ± 1.09 cm respectively. As for nitrogen, phosphorus and potassium level obtained were 22 mg/g, 10.3 mg/g and 13.9 mg/g respectively. These results proved that fruits peels can be used as an alternative organic-cost-saving source for soil amendment.