

**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

---

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  $9.20 \pm 0.45$ ,  $9.46 \pm 0.66$  cm and  $15.88 \pm 0.91$  cm, followed by fruits peels  $9.20 \pm 0.45$ ,  $8.98 \pm 0.69$  cm and  $13.68 \pm 0.58$  cm and control with  $7.00 \pm 0.71$ ,  $5.12 \pm 0.61$  cm and  $9.92 \pm 1.09$  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.