

**UNIVERSITI TEKNOLOGI MARA**

**CHARACTERIZATION OF PRODUCT  
PROPERTIES IN THERMOPHILIC  
COMPOST FROM OIL PALM WASTES**

**NURUL NORHIDAYAH AZIZ**

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|                        |   |                                                                                        |
|------------------------|---|----------------------------------------------------------------------------------------|
| Name of Candidate      | : | <b>NURUL NORHIDAYAH BINTI AZIZ</b>                                                     |
| Candidate's ID No.     | : | 2012681036                                                                             |
| Programme:             | : | Bachelor of Science (Hons.) Plantation<br>Technology and Management                    |
| Faculty                | : | Plantation and Agrotechnology                                                          |
| Title                  | : | Characterization of Product Properties In<br>Thermophilic Compost from Oil Palm Wastes |
| Signature of Candidate | : | _____                                                                                  |
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## ABSTRACT

This study aims to introduce a method for the production of products resulting from the use of palm oil mill residues consisting of MF (mesocarp fiber), POME (Palm Oil Mill Effluent), EFB (Empty Fruit Bunch) and a mixture of all three waste oil through thermophilic composting process. Reviews for 5 weeks with the use of machines located in the Research Center decomposition Universiti Kebangsaan Malaysia (UKM) in Tasik Chini, Pahang. Rendering engine has been set at a temperature between 50°C-60°C. Specification properties thermophilic compost products in terms of physical characteristics of the product and nutrient content were performed. The results show that there is a change in the physical characteristics of some oil palm waste. In addition, the comparison of nutrient between thermophilic compost with normal compost has shown that almost all POME nutrient content in normal compost higher than thermophilic compost. However studies on the EFB showed opposite results. While studies on the MF only visible decomposition of N content of compost to normal thermophilic compost due to lack of research data. In conclusion, the thermophilic compost suitable as fertilizer because it provides content that can help plant nutrient.

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