

**THE COMPARISON OF CHEMICAL PROPERTIES BETWEEN BIOCHAR
AND ACTIVATED BIOCHAR DERIVED FROM EFB AT SAME
TEMPERATURE**

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**Final Year Project Report Submitted in
Partial Fulfilment of the Requirements for the
Degree of Bachelor of Science (Hons.) Plantation Management and Technology
in the Faculty of Plantation and Agrotechnology
Universiti Teknologi MARA**


JULY 2016

DECLARATION

This Final Year Project is a partial fulfilment of the requirements for a degree of Bachelor of Science (Hons.) Plantation Technology and Management, Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA.

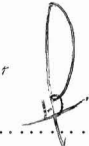
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ACKNOWLEDGEMENTS

In the name of Allah S.W.T The Most Merciful and Most Gracious

Alhamdulillah. Thanks to Allah because of His Bless, I am able to complete my Final Year Project entitled “The comparison of chemical properties between biochar and activated biochar derived from efb at same temperature”.

Special thanks and gratitude to my supervisor, Madam Nor Azlina binti Abu Sari for her unrelenting guidance and support. Thanks for all the information, ideas, criticism, encouragement and mentorship given during all stages of this research. The supervision and support given have truly helped to ensure the smooth progression of this research. The cooperation is really appreciated.

Deepest thanks and appreciation to my parents, Hj. Badorashiam bin Bahaman and Hj. Samsiah binti Hj.Ahmad, as well as my family for their cooperation, never ending encouragement, constructive suggestion and full of support for the completion, from the beginning till the end. At the same time, thanks to all my friends and those who had supported my work directly or indirectly during the thesis completion.

Finally, thanks to all the kind hearted human, as I am aware that this sample ‘THANKS’ could not resembles all of your support and moral supports.

MUHAMMAD SHAFIQ BIN BADORASHIAM

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ABSTRACT

THE COMPARISON OF CHEMICAL PROPERTIES BETWEEN BIOCHAR AND ACTIVATED BIOCHAR DERIVED FROM EFB AT SAME TEMPERATURE

This research was conducted to observe the chemical properties of different types of biochars. Research and analysis was conducted at UiTM (Melaka) Kampus Jasin for four months beginning from January to June 2016. Sources of biochars is oil palm's empty fruit bunch (EFB), all the biomass were collected at farms and estates around Melaka. Biochars are produced using the pyrolysis process, where there is less or no oxygen available to ensure the partial combustion of biomass. Each biochar are pyrolyzed at specific temperatures. Which resulted, a material rich in carbon content and can be applied to soil as amendment to improve soil's physical and chemical condition. Chemical properties such as pH value, total nutrient contents and total heavy metal were observed and tested in soil science laboratory in UiTM (Melaka) Kampus Jasin. Results showed that there were significant difference between biochars and activated biochars. The result from the study also shows that the activated biochar contains less of total nutrient but greater in adsorption and also pH value. As a result, activated biochar are greater than the biochar in terms of adsorption and pH value.