

THE EFFECT OF POME (PILUP) OIL (WILL EFFICIENT) ON
GROWTH, YIELDING AND POST HARVEST QUALITY
OF BRINJAL ON BRIS SOIL

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2010

SCHOOL OF AGRICULTURE, FORESTRY AND FOOD SCIENCE
UNIVERSITI MAHANGSA TERENGGANU

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The effects of pome (palm oil mill effluent) on growth, fruiting
and post harvest quality of brinjal on bris soil / Nor Hidayani
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THE EFFECT OF POME (PALM OIL MILL EFFLUENT) ON
GROWTH, FRUITING AND POST HARVEST QUALITY OF
BRINJAL ON BRIS SOIL

By
Nor Hidayani binti Salim

Research Report submitted in partial fulfillment of
the requirements for the degree of
Bachelor of Science in Agrotechnology (Post Harvest Technology)

DEPARTMENT OF AGROTECHNOLOGY
FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
UNIVERSITI MALAYSIA TERENGGANU
2010

ENDORSEMENT

The project report entitled **The effect of POME (palm oil mill effluent) on growth, fruiting and post harvest quality of brinjal on bris soil** by **Nor Hidayani bt. Salim**, Matric No. **UK15383** has been reviewed and corrections have been made according to the recommendations by examiners. This report is submitted to the Department of Agrotechnology in partial fulfillment of the requirement of the degree of Science in Agrotechnology (Post Harvest Technology), Faculty of Agrotechnology and Food Science, Universiti Malaysia Terengganu.



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25 APRIL 2010

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DECLARATION

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged.

Signature : 

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Date : 25 APRIL 2010

ACKNOWLEDGEMENT

Praises and thanks to God for giving me strength and patience to finish up my project and thesis writing. An appreciation to my supervisor Associate Professor Haji Abdullah Mohd Zain for the advice and guide from the beginning of my final year project until completing this thesis writing.

A very thankful also to my beloved parents for their blessing, praying and encouragement to finish up my final year project. Sincerely thanks to all my friends which helping me directly or indirectly to ensure my project run smoothly. Not forgotten also to all lecturers and Post Harvest Technology Laboratory Assistant which have been helped me much in completing my project thesis.

Besides, special thanks also to my beloved friend who has given me strength, encouragement and love during my process to complete this project successfully. And finally thank lecturer who are correcting and giving comments on this project. Thank you.

ABSTRACT

Bris soils are knowingly unstructured, have high moisture stress, and low in water holding capacity. Furthermore, it is also low in nutrient content and has high surface temperature since it has less water holding capacity. Thus, the way to solve this problem is to build up humus in the soil as well as facilitating nutrient cycling. It needs organic matter to improve water holding capacity to make it suitable to be used for crop planting. The use of inorganic fertilizer such as POME (palm oil mill effluent) will improve the soil, reduce the cost of production and provide nutrients for plants. The aim of this study is to see the effect of POME on growth, fruiting and post harvest quality of brinjal on bris soil. In this study, there were 5 treatments with different ratios of Bris soil and POME. The evaluation of effect of POME on brinjal plants was based on several parameters. On growth effects, Bris soil treated with the highest ratio of POME (3:4) gave even better plant growth and greater stem diameter after four weeks of planting. This showed that the plants growth were vigorous with the addition of POME. On fruiting effect, Bris soil treated with POME gave even greater yield and the weight of each produce was greater compared to plants without POME's treatment. For the post harvest quality of brinjal, plants treated with POME gave better fruit firmness, total soluble solid and pH. Generally, these traits are much preferred by the consumers.

ABSTRAK

Tanah Bris adalah tanah yang tidak berstruktur, mempunyai tekanan kelembapan yang tinggi dan keupayaan untuk memegang air yang rendah. Di samping itu, tanah Bris juga mengandungi kurang nutrient dan suhu permukaannya yang tinggi disebabkan oleh keupayaan memegang air yang rendah. Oleh itu, untuk menyelesaikan masalah ini adalah dengan menambah humus ke dalam tanah Bris untuk memudahkan kitar nutrien. Bahan organik seperti POME (bahan buangan kisan kelapa sawit) boleh digunakan bersama tanah Bris untuk tujuan penanaman kerana mempunyai keupayaan untuk memegang air, memperbaiki keadaan struktur tanah, menyediakan nutrient kepada tumbuhan dan boleh menjimatkan kos pengeluaran tanaman. Tujuan utama kajian ini adalah untuk mengetahui kesan menggunakan POME pada tanah bris untuk pertumbuhan, pembuahan dan kualiti lepas tuai terhadap penanaman terung. Dalam kajian ini, terdapat 5 rawatan dengan kadar tanah Bris dan POME yang berbeza dengan penggunaan baja bukan organik yang sama rata. Kesan penggunaan POME ke atas pokok dan hasilan berdasarkan beberapa parameter. Untuk kesan pertumbuhan, tanah Bris yang dirawat menggunakan kadar POME yang paling tinggi (3:4) menunjukkan pertumbuhan pokok dan diameter batang yang paling tinggi. Ini menunjukkan bahawa dengan penggunaan POME, pertumbuhan adalah pesat. Untuk kesan pembuahan, tanah Bris yang dirawat menggunakan POME memberikan hasil dan berat buah yang tinggi berbanding pokok yang tidak dirawat dengan POME. Untuk kesan kualiti lepas tuai hasilan, pokok yang dirawat dengan POME menunjukkan nilai keteguhan isi yang baik, kandungan pepejal terlarut yang tinggi dan pH yang boleh diterima di peringkat pengguna.