

SUSTAINABLE UTILIZATION OF MALAYSIAN AGROWASTE



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IIUM Press
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA



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IIUM Press

Published by:
IIUM Press
International Islamic University Malaysia

First Edition, 2011
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Perpustakaan Negara Malaysia

Cataloguing-in-Publication Data

Ahmed Jalal Khan Cowdhury, Deny Susanti, Jamaluddin Mohd Daud, Roslina Mohd Salim & Abul Bashar Mohammed Helaluddin : Sustainable Utilization of Malaysian Agrowaste

Includes Index
ISBN

ISBN: 978-967-418-008-9

Member of Majlis Penerbitan Ilmiah Malaysia – MAPIM
(Malaysian Scholarly Publishing Council)

Printed by :

IIUM PRINTING SDN. BHD.
No. 1, Jalan Industri Batu Caves 1/3
Taman Perindustrian Batu Caves
Batu Caves Centre Point
68100 Batu Caves
Selangor Darul Ehsan

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CHAPTER 4

BIOADSORBENT FOR WASTEWATER TREATMENT FROM JACKFRUIT (*Artocarpus heterophyllus*) PEEL POWDER

Rosliza Mohd Salim & Muhammad Akhil Ayob

Introduction

Wastewater is now one of the great concerns in environment issue. The treatment of polluted water is important as effluents from industries and domestic sources contaminate the clean water supply, which eventually may lead to bad health. It has been found that one of the pollutants poured into the rivers from the industries is methylene blue dye. This dye is found to affect aquatic life and the food web as it interferes with the transmission of sunlight into streams and reduces the photosynthesis activity. Methylene blue dye is used for dyeing cotton and silk in textile industries. Like many other related industries such as printing, cosmetics, and leather, methylene blue is also an important chemicals used in the industry. Methylene blue is reported to cause some harmful effects as its heavy exposure may lead to increased heart rate, vomiting, shock, Heinz body formation, cyanosis, jaundice, and tissue necrosis in human. There are several methods to