## STUDIES ON THE ANTHOCYANINS EXTRACTED FROM PIGMENTED RICE (ORYZA SATIVA CV. CHAKHAO POIREITON) BRAN, THEIR ENCAPSULATION AND INCORPORATION IN LEMON JUICE

A thesis submitted to the

Department of Food Engineering and Technology, Tezpur University in partial fulfilment of the requirements for the award of the degree

of

# MASTER OF TECHNOLOGY IN FOOD ENGINEERING AND TECHNOLOGY

BY

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### CERTIFICATE OF THE HEAD OF THE DEPARTMENT

This is to certify Mr. Jinku Bora, Roll no. FPL12007, a student of the Department of Food Engineering and Technology, Tezpur University, Assam has successfully completed the project work entitled "Studies on the anthocyanins extracted from pigmented rice (*Oryza sativa* cv. *Chakhao Poireiton*) bran, their encapsulation and incorporation in lemon juice" as a part of his course curriculum and submitted in partial fulfilment of the requirements for the award of the degree of Master of Technology in Food Engineering and Technology under the complete supervision of Dr. Charu Lata Mahanta, Professor and Dean (R&D), Department of Food Engineering and Technology, Tezpur.

Miltisle

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Date: 23.5.14

Place: Tezpur University, Tezpur



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#### **CERTIFICATE BY THE SUPERVISOR**

I certify that the project entitled "Studies on the anthocyanins extracted from pigmented rice (*Oryza sativa* cv. *Chakhao Poireiton*) bran, their encapsulation and incorporation in lemon juice" submitted by Jinku Bora (FPL12007) towards the partial fulfilment of the award of the degree of Master of Technology in Food Engineering and Technology of the Tezpur University (Central University), Napaam, Tezpur, Assam, India as a part of the course curriculum, embodies the record of original investigation carried out by him under my supervision. To the best of my knowledge the project embodies account for his own findings and has not been submitted previously anywhere for any degree whatsoever by either him or anyone else.

Place: Tezpur University, Tezpur

Date: 27/5/2014

Charn lata Mahanta (CHARU LATA MAHANTA)

#### DECLARATION

I hereby declare that the project work entitled "Studies on the anthocyanins extracted from pigmented rice (*Oryza sativa* cv. *Chakhao Poireiton*) bran, their encapsulation and incorporation in lemon juice" was carried out by me at the Department of Food Engineering and Technology, Tezpur University, Tezpur under the guidance of Dr. Charu Lata Mahanta, Professor and Dean (R&D), Department of Food Engineering and Technology, Tezpur. This Project Report is being submitted towards the partial fulfilment of the award of the degree of Master of Technology in Food Engineering and Technology of the Tezpur University (Central University), Napaam, Tezpur, Assam, India as a part of the course curriculum.

I further declare that this project or any part of it has not been submitted elsewhere for any other degree or diploma to any other University/Institute.

Place: Tezpur University

Date: 27/05/2014

In Boro JINKU BORA)

Roll No- FPL12007

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Jinku BORA)