APPLICATION OF RESISTANT STARCH FROM UNRIPE "KEPOK" BANANA (*Musa paradisiaca formatypica*) IN BATTER COATING FORMULATION TO REDUCE OIL ABSORPTION IN FRIED FOOD

By

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

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By

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The aim of this study is using white " Kepok" banana (Musa paradisiaca formatypica) as the source of Resistant Starch and applying the resistant starch in batter coating formulation to provide a healthier batter coating that contributes to lower oil absorption. Methods of banana starch extraction used water alkaline method. Banana starch which contain RS 2 is modified to RS 3 with method of repeated autoclaving cooling cycle and combination of debranching – autoclaving cooling. Resistant starch both RS 2 and RS 3 are applied in the batter coating formulation at 3 level ratio (10%, 30% and 50%) and analyze through its effect. Analysis were done on the effect of the resistant starch towards the batter and battered product which were then analyze based on fat content, coating pick up, water retention capacity and sensory evaluation. Throughout the study , it was found that repeated method of autoclaving cooling is better than debranching in the modification of the resistant starch. In terms of reducing oil absorption, it was found that RS 3 Autoclave at 30% substitution have the least oil absorption and is the most preferable in terms of sensory evaluation.

Keywords: Musa paradisiaca formatypica, resistant starch, fat content, water retention capacity, coating pick up,

DEDICATION

I dedicate this study for my family and the future of healthy food for a healthier world.

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Jakarta, June 19th, 2017

Lisa Vania

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