THE USE OF SUPERHEATED STEAM TREATMENTS ON RICE FLOUR TO ENHANCE THE QUALITY CHARACTERISTICS OF LAKSA NOODLES

by

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Sekian, terima kasih.

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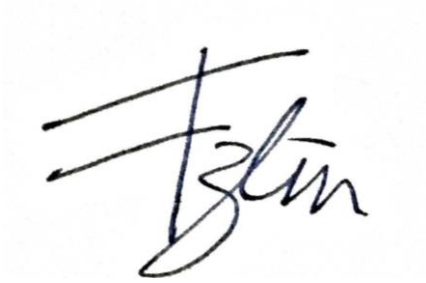

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TABLE OF CONTENT

		Page
DECLARATION BY AUTHOR		ii
ACKNOWLEDGEMENT		iii
TABLE OF CONTENT		iv
LIST OF TABLES		vi
LIST OF FIGURES		vii
LIST OF ABBREVIATION AND SYMBOLS		viii
ABSTRAK		ix
ABSTRACT		x
CHAPTER 1 INTRODUCTION		1
1.1	Research background	1
1.2	Rationale of The Study	3
1.3	Objectives	4
CHAPTER 2 LITERATURE REVIEW		5
2.1	Asian Noodles	5
2.2	Gluten-Free Noodles	6
2.2.1	Laksa Noodles	7
2.3	Composition of Laksa Noodles	7
2.4	The Basic Ingredient in Laksa Noodles Making	9
2.4.1	Rice Flour	9
2.4.2	Water	11
2.4.3	Salt	11
2.5	Processing of Noodles	11
2.5.1	Mixing	12
2.5.2	Dough resting	12
2.5.3	Sheeting	13
2.5.4	Slitting	13
2.5.5	Steaming	13
2.5.6	Boiling	14
2.6	Superheated Steam Treatment	15
2.6.1	Principle of Superheated Steam	15
2.6.2	Advantages and Disadvantages of Superheated Steam	16
2.6.3	Application of Superheated Steam in The Food Production Industry	18

2.6.4 Application of Superheated Steam in Non-Food Industry 19
2.6.5 Effects of Superheated Steam in The Quality of Food Product 20
CHAPTER 3 METHODOLOGY 21
3.1 Overall Experimental Design 21
3.2 Materials 22
3.3 Methods 22
3.3.1 Preliminary Study 22
3.3.2 Superheated Steam Treatment on Rice Flour (SHSRF) 23
3.4 Physical Analysis 23
3.4.1 Colour Measurement 23
3.4.2 Mechanical Properties 24
3.4.3 Determination of Noodles Cooking Quality 25
3.4.4 Texture Analysis 26
3.4.5 Sensory Analysis 26
3.4.6 Statistical Analysis 27
CHAPTER 4 RESULTS AND DISCUSSIONS 28
4.1 Preliminary Study 28
4.1.1 Determination of Steaming Time 28
4.1.2 Determination of The Amount of Water in The Formulation 31
4.2 Physical Analysis 34
4.2.1 Colour 34
4.2.2 Mechanical Properties 35
4.2.3 Cooking Quality 37
4.2.4 Texture 39
4.2.5 Sensory 41
CHAPTER 5 CONCLUSION AND RECOMMENDATION 43
5.1 Conclusion 43
5.2 Recommendations 43
REFERENCES 44

LIST OF TABLES

Table Caption		Page
Table 4.1	Physical appearance of rice noodles as a function of steaming times	30
Table 4.2	Influence of water content in the formulation of physical appearance of raw and cooked noodles	32
Table 4.3	Colour values of cooked noodles	35
Table 4.4	Tensile strength and elasticity modulus of cooked noodles	37
Table 4.5	Cooking quality of cooked noodles	39
Table 4.6	Textural parameter of cooked noodles	41
Table 4.7	Sensory evaluation of cooked noodles	42

LIST OF FIGURES

Figure Caption		Page
Figure 3.1	Overall schematic experimental design	21
Figure 4.1	Percentage weight change of rice flour as a function of steaming time for RF150 and RF250	29
Figure 4.2	Radar plot of hedonic scores for the different sensory attributes of the cooked noodles sample. a; Commercial dried rice noodle (CMN), b; High superheated steam rice flour at 250^{o}C (RF250), c; Low superheated steam rice flour at 150^{o}C (RF150), d; Fresh rice noodle (FN)	42

LIST OF ABBREVIATION AND SYMBOLS

Abbreviation	Caption
ANOVA	Analysis of variance
CMN	Commercial Dried Laksa Noodle
FN	Fresh Rice Noodle
RF150	Low Superheated Steam Treatment on Rice Flour at 150^{o}C
RF250	High Superheated Steam Treatment on Rice Flour at 250^{o}C
SHSRF	Superheated Steam Treatment on Rice Flour
%	Percentage
<	Less Than
>	Greater Than
^{o}C	Degree Celcius
±	Plus Minus

MENGGUNAKAN RAWATAN PENGERINGAN WAP YANG TERLALU PANAS KEPADA TEPUNG BERAS UNTUK MENINGKATKAN KUALITI MI LAKSA

ABSTRAK

Mi laksa, juga dikenali sebagai mi beras, adalah produk beras yang paling popular di Asia Tenggara. Produk yang diperbuat daripada beras, biasanya mudah mengeras; kemudian, tekstur dan rasa mereka akan hilang dari masa ke masa kerana sifat penghabluran semula amilosa dan amilopektin kanji. Kajian ini bertujuan untuk menilai kesan penggunaan wap yang terlalu panas pada tepung beras (SHSRF) terhadap sifat fizikal, memasak, makan, dan kualiti deria mi laksa yang dihasilkan. Dua syarat SHSRF dipilih; a) rendah suhu pada 150^{o}C (RF150) dan b) tinggi suhu pada 250^{o}C (RF250). Perbandingan antara mi beras dibuat daripada dua keadaan ini berbanding dengan mi segar (FN). Kedua-dua rawatan dengan ketara ($P<0.05$) mempengaruhi sifat fizikal, kualiti memasak, dan kualiti makan mi beras. Mi beras yang disediakan dari kedua-dua rawatan ini lebih tinggi kekuningan dan mempunyai kekuatan tarik yang lebih kuat daripada FN. Rawatan ini juga menyebabkan pengurangan waktu memasak dan ini menunjukkan peningkatan kualiti memasak berbanding FN. Kekerasan mi beras mengikut urutan; RF250>RF150>FN menunjukkan peningkatan kualiti makan mi beras yang disediakan dari SHSRF. Ringkasnya, wap yang terlalu panas boleh digunakan untuk modifikasi fizikal untuk mengubah sifat tepung beras untuk meningkatkan kualiti memasak dan makan mi berasaskan tepung beras.

THE USE OF SUPERHEATED STEAM TREATMENTS ON RICE FLOUR TO ENHANCE THE QUALITY CHARACTERISTICS OF LAKSA NOODLES

ABSTRACT

Laksa noodles, also known as rice noodles, are the most popular rice products in Southeast Asia. The products made from rice, are usually prone to harden; later, their texture and taste will lose over time because of the recrystallization properties of starch's amylose and amylopectin. This study was aimed to evaluate the effects of using superheated steam on the rice flour (SHSRF) on the physical properties, cooking, eating, and sensory quality of laksa noodles produced. Two conditions of SHSRF were selected; a) low temperature at 150^{o}C (RF150) and b) high temperature at 250^{o}C (RF250). The comparisons between rice noodles were made from these two conditions vs. fresh noodles (FN). Both treatments significantly ($P<0.05$) affected the physical properties, cooking, and eating quality of rice noodles. Rice noodles prepare from both treatments were higher in yellowness and had stronger tensile strength than those of FN. The treatments also caused a reduction in cooking time, and improvement in cooking quality compared to FN. Hardness of rice noodles was in the order; RF250>RF150>FN indicating an improved eating quality of rice noodles prepared from SHSRF. In summary, superheated steam may be used for physical modification to change rice flour properties to enhance the cooking and eating quality of rice noodles.