

Researchers:

PROFESSOR DR. WAN ROSLI WAN ISHAK

Dr. Tengku Alina Tengku Ismail
Dr. Nik Norliza Nik Hassan
Tai Yen Yee
Mohd Kamarul Zaman Ibrahim

▶ TRADEMARK APPLICATION IN PROGRESS



MYNYPA SUGAR: DIABETIC FRIENDLY NATURAL SUGAR FROM *NYPA FRUTICANS* SAP



Introduction

• In Malaysia, the prevalence of diabetes mellitus (DM) has experienced an upward trend as it remains the second most common chronic illness in the country. In a span of just a decade, there has been an 80% increase in the prevalence of diabetes. This number has exceeded the estimated prevalence of DM for the year 2025.

Problem Statement

• The increasing trend of DM seem to have linked to the continued escalation of the availability of added sugar and sweeteners (kg/capita/year) in Malaysia which has risen from 28.8 kg to 48.7 kg, or almost 70% between 1967 and 2017 (FAO, 2017). Consumption of artificial sweeteners such as aspartame, sucralose, saccharine and neotame on the other hand has been promoted as a prevention strategy to replace added sugar. However, the health risks of artificial sweeteners consumptions are still highly controversial topic, which have allegedly been linked to adverse effects such as cancer, weight gain and metabolic disorders.

Novelty & Inventiveness

• A novel alternative natural sugar replacer from *Nypa fruticans* sap which could be incorporated into processed foods in developing high dietary fibres and low sugar (low GI) bakery products which are well accepted by customers.

Applicability

• Suitable to be replaced with sugar in processed foods, especially bakery products.
• Slowly digested and hence, causing a lower rise in blood glucose level after consumption.

Product/Technology Readiness

• TRL5/6
• Ready for commercialization (Potential Partner: MKR for up scaling and mass production)

Research Achievement

• Improvement of physico-chemical properties, antioxidant capacity, sensorial acceptability and GI of bakery products by partially substituting sugar with *My Nypa* (Completed).
• MARA Grant, Dana Inovasi Awal Grant, Bridging Grant
• One MSc student.
• Tai, Y. Y., Alina T. I. T & Rosli, W. W. I. (2019). Improvement of physico-chemical properties, antioxidant capacity and acceptability of carrot cake by partially substituting sugar with concentrated *Nypa fruticans* sap). *PERTANIKA Journal of Tropical Agricultural Science*. 42(3) : 883-902.
• Acceptability of carrot cake by partially substituting sugar with concentrated *N. fruticans* sap. 1st ASEAN Early Career Researcher (ECR) Conference and Networking in Food Science and Nutrition. Singapore 10-11th October 2019.

Intellectual Property

• Trademark of MyNYPA – submitted on June 20, 2019

Commercialization Potential

• Diabetic individuals, obese people, general population.

Level of Impact

• Increase the socio-economic status of farmers while at the same time help to indirectly create jobs.
• Diversify healthy food productions in the market (RTE processed foods etc).



Contact Person:

PROFESSOR DR. WAN ROSLI WAN ISHAK

School of Health Sciences, Health Campus
Universiti Sains Malaysia, Kelantan, MALAYSIA

Tel: +609-767 7649 Fax: +609-767 7505 E-mail: wrosli@usm.my