

# Diabetes, Hypertension and Metabolic Syndrome

July 19, 2022 | Webinar

Wan Rosli Wan Ishak, J Endocrinol Diabetes Res 2022, Volume 08

## Valorisation of selected agro-residual by-products in lowering glycemic index of foods

Presently, the incidence of non-communicable diseases is increasingly growing with the number of diabetic people expected to increase from 171 million in 2000 to 366 million in 2030. This is the key cause of morbidity and mortality all around the globe because it can lead to complications in health and affect the quality of life. High consumption of refined carbohydrates and fats coupled with low intake of dietary fibres, particularly from fruit and vegetables, has increased the risk of colorectal cancer, CVD, diabetes and other diseases. An increase in the quantities and varieties of fiber-containing foods may prevent or treat many of the non-communicable diseases (including obesity, CVD and diabetes mellitus). An ideal recommended intake of dietary fibre levels is 20-35g / day. However, the average intake for DF among particularly Malaysian populations is alarmingly low, which is only 16g / day. The inclusion of vegetable DF in processed food items is one of the easiest attempts to increase the degree of DF. By reducing the rate of glucose absorption in the small intestine, the DF increases the glycemic response. The DF enhances glycemic response by raising the rate of absorption of glucose in the small intestine, thereby lowering the GI value. Low GI diet will make us feel full for a longer duration while minimizing overeating at the same time. Low GI diet is beneficial to reduce the risks and complications of different health conditions such as diabetes. Our research reveals that incorporation of agro-residual resources from banana (over-ripe banana), oyster mushroom and cornlettes in a few baked-based products such as cookies, pasta, cakes, muffins and flatbread



### Wan Rosli Wan Ishak

Universiti Sains Malaysia, Malaysia

already successful and scientifically proven in improving dietary fibre content while lowering GI values. In brief, physically active, eating properly and regularly sufficient levels of dietary fibres from fruits and vegetables are vital; what we consume and drink now, affects our health in the future.

**Keywords:** Cornlettes, glycemic index, oyster mushroom and overripe banana

### Biography

Professor Dr. Wan Rosli Wan Ishak Specialisation in Food science and nutrition, Function food. Wan Rosli Research Interests are Functional food development Optimizing dietary fibres from agricultural by-products and Research Recognition and Achievements are Innovation: Most Promising Innovation Awards (BioMalaysia 2009) Commercialization: NutriMush Cookies and Oyster Mushroom Powder Patent: Cornsilk Powder for Food Production 2015.

---

**Received:** July 05, 2022; **Accepted:** July 09, 2022; **Published:** July 20, 2022

---