

FUJI OIL HOLDINGS INC.  
NEWS RELEASE

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## Crave-able plant-based heritage cuisine made possible with Novel Ingredients

**Singapore:** Four plant-based versions of Singapore’s heritage cuisine were developed by Diploma in Food Nutrition & Culinary Science, School of Applied Science, Temasek Polytechnic in collaboration with Fuji Oil Group in January.

Currently the plant-based food sector is dominated by burger patties, nuggets and geared towards Western cuisine. Addressing this gap, the team went all out to create four local heritage delights namely, *No-MOO Satay (Vegan Beef satay)*, *No-CLUCK Satay (Vegan Chicken satay)*, *Wow-gyu Rendang (Vegan Beef Rendang)*, *Shojin Laksa (Vegan Laksa)*

The aim was to recreate “meat-less” dishes without compromising on the nostalgic sensorial experience of these heritage dishes and not creating yet another imitation meat product. The team faced a lot of challenges, but we could proudly say that the new dishes are considerable feats in the field of alternative protein. As the quote goes, “Collaboration is the key that takes innovation and creativity to the next level”; the creation of these 4 products within a short span of 3 months would have not been possible without tapping on the expertise from Temasek Polytechnic and Fuji Oil.

After months of repeated trials and tasting, the team of students, research scientists and lecturers from Temasek Polytechnic has managed to recreate all four dishes that captures the texture and in-depth flavor of the dishes. Fuji Oil’s textured vegetable protein (TVP) and high moisture meat analogue (HMMA) provide the main bulk for these dishes. The TVP and HMMA (Prime Soy Meat Block DN1 & WB1) are made from soy protein and other ingredients that has been subjected to a state-of the art proprietary extrusion process that mimics the fibrous texture and chewability of animal meat.

Juiciness is the most important sensory attributes next to flavor and texture and juiciness of products usually are dependent on two factors. The juice, that is the amount of fat and water/moisture that is released during chewing and the amount of saliva produced to moisten the food while chewing. Juiciness is a very complex attribute that is hard to determine by chemical and physical tests. Fuji Oil’s Fat mimetics provided the right amount of juiciness and mouthfeel which mimicked the sensory attributes of traditional products.

All of the four dishes were made with flavorful and aromatic spices with the inclusion of Fuji Oil’s proprietary ingredients utilizing “MIRACORE™”\* technologies to bring out the inherent flavors of the dishes.

As for No-MOO beef satay, No-CLUCK chicken satay and the Wow-gyu rendang, fat-type (Beef Flavour) and dashi-type (chicken and beef flavour respectively) were used to provide the umami, savoury, and resemblance of meaty profile.

For Shojin Laksa broth, UHT-ACE-ROS (plant-based cream) added the rich creaminess and fat-type (shellfish flavour) not only enhanced the overall flavor of the dish, but it also had a note of pleasant savoury taste or umami flavor that helped consumers reminisce the flavor of fresh, sweet seafood.

The students' ingenuity has created amazingly delicious dishes that everyone would be surprised to know that they are all made from plant-based ingredients. By utilizing these recipes, Fuji Oil would like to explore possibilities in the rapidly changing plant-based food scene in the Asian market.

Although the novel plant-based ingredients used in this project are still in the marketing stage, Fuji Oil is looking for partners who can work together for collaboration.

Please contact Fuji Oil if you are interested in technology and R&D collaboration or products (including prototypes).

Fuji Oil Group will keep striving to co-create a sustainable future for food, based on plant-based ingredients that are both delicious and healthy. Beginning with this initiative with Temasek Polytechnic, Fuji Oil Group would like to engage in plant-based innovation in the Singaporean market and to the world.

**\*About MIRACORE™ technology brand**

MIRACORE™ is a core technology for food that leverages the potential of plants, creating food that is both healthy for everyone and always delicious. The feeling of satisfaction that animal-based products deliver is critical for people to continue eating PBF and create a sustainable future. We have established MIRACORE™ as a new technology brand that reproduces this satisfaction. MIRACORE™ fully recreates the aroma, flavor and texture of animal-based products, and delivers delicious, satisfying food. This collaborative technology was made possible by the Fuji Oil Group's bedrock of research on plant-based oils and fats and proteins for over 60 years.

### **About Temasek Polytechnic**

Established in 1990, TP is one of the leading institutions of higher learning in Singapore. Currently it offers 36 full-time diploma courses in the areas of applied science, business, design, engineering, humanities & social sciences and informatics & IT. It also offers over 40 part-time courses, up to the advanced diploma level. TP students undergo a holistic learning system that combines hands-on experience, character education and relevant life skills, in an enriching learning environment.

The Polytechnic has also infused global realities into its programmes and developed a mindset on campus that embraces socio-cultural diversity. Believing in the possibilities of tomorrow, Temasek Polytechnic is committed to co-creating a better world with its stakeholders by nurturing the next generation of values-centred leaders, lifelong learners and future-oriented creators.

For more information, please visit [www.tp.edu.sg](http://www.tp.edu.sg).

### **About Fuji Oil Group**

The Fuji Oil Group is a manufacturer of plant-based food solutions in the fields of hard butters for chocolate and industrial use chocolate; emulsified and fermented ingredients including cream, margarine, and cheese-flavor ingredients; and soy ingredients. With Headquarters in Japan, the Group has 34 companies in 14 countries. In the belief that soy and other vegetable proteins will contribute to human health and the environment, we have been engaged in research and development and business use of them for more than half a century.

Fuji Oil Asia Pte., Ltd., established in Singapore in 2012 as the regional headquarters of the Fuji Oil Group for Asia, managing eleven group companies in the Southeast Asia and Asia Pacific region centralizing the functions of sales, R&D and raw materials procurement etc. Fuji Oil Asia established Alternative Protein Innovation Center Asia (APICA), a development team specializing in alternative proteins, in April 2022.

For more information, please visit <https://www.fujioilholdings.com/en/>

