RED PALM OIL (RPO) CANDY

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Candy is a popular confectionery enjoyed by people of all ages. Traditionally, candy has been seen as a sweet indulgence with little to no nutritional value. However, with growing consumer demand for functional foods, there is a shift towards confectionery products that offer both taste and health benefits.

The global sugar confectionery market is expected to generate a revenue of USD123.00 billion in 2025, with a steady annual growth rate of 5.51% from 2025 to 2030 (Statista Market Insights, 2025). This growth suggests a robust demand for sweet products, with consumer preferences evolving to include healthier options such as those incorporating functional ingredients. As the market grows, the opportunity for products that not only satisfy consumer cravings but also align with trends in health and natural ingredients increases.

Red Palm Oil (RPO) is naturally rich in vitamin E and beta-carotene (provitamin A), which provide antioxidant properties and support overall health. These bioactive compounds contribute to eye health, immune function and cardiovascular well-being (Bohn, 2019; Parveez *et al.*, 2023; Tan *et al.*, 2021). By incorporating RPO into candy, this product offers a delicious and convenient way to enjoy RPO. RPO candy lets consumers satisfy their sweet cravings while getting the benefits of RPO at the same time.

RPO candy taps into this trend by offering a unique confectionery product that satisfies cravings while delivering the benefits of RPO. RPO candy stands out as an innovative alternative to conventional candy.

THE TECHNOLOGY

The technology for producing RPO candy is a simplified and cost-effective that prioritises nutrient preservation. Readily available and easy-to-operate confectionery equipment is utilised to minimise capital investments and training needs. The candy formulation incorporates health-enhancing ingredients and optimised RPO levels. Finally, the technology allows for versatile flavour options, enabling a wide range of product variations which appeal to diverse consumer preferences to be created. The photo of the RPO candy developed is shown in *Figure 1*.

NOVELTY OF THE PRODUCT/ TECHNOLOGY

This product/technology offers several key novelties. RPO as a key ingredient, thus offering its nutritional benefits in a tasty and easy-to-eat form. It also uses a unique method to incorporate RPO in the candy matrix. Thus preserving its nutrients and maintaining their stability.

Figure 1. Red Palm Oil Candy.

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BENEFITS AND ADVANTAGES

- Enhanced with vitamin E and beta-carotene from RPO.
- The technology offers a range of flavour options and ingredients.
- Cost effective and simple processing method.
- High overall acceptance among consumers.

ECONOMIC ANALYSIS AND COMMERCIAL BENEFITS/COMMERCIALISATION POTENTIAL

The raw materials cost including packaging for one bottle (20 g) of RPO candy is RM1.65. The estimated retail price in supermarkets is RM8.00-RM9.00 per bottle, while the selling price of commercial products range from RM10.00 to RM12 per bottle. The potential total sales of RPO candy are estimated at 300,000 bottles (20 g) per year, representing 0.36% of households in Malaysia making a purchase each month.

CONCLUSION

RPO candy offers a convenient and tasty way to enjoy the benefits from RPO. Its carefully designed formulation retains vitamin E and beta-carotene while ensuring great flavour, making it an appealing choice for health-conscious consumers and a valuable addition to the functional confectionery market.

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