

## **Characteristics of bambangan kernel fat fractions produced by solvent fractionation and their potential industrial applications**

### **ABSTRACT**

Given the demand for new fats and oils, and the limited research on bambangan kernel fat (BKF), this study aimed to fractionate BKF and to determine its physicochemical properties such as fatty acids, iodine value (IV), acid value, peroxide value, slip melting point (SMP), and solid fat content (SFC). The major fatty acids of stearin fractions were palmitic, stearic, and oleic acids, with the first stearin having a higher stearic acid (48.50%) but lower oleic acid (33.76%) content than the second stearin. High SMP (36.3°C) and low IV (39.9 g iodine/100g) values were found in Fraction-III compared to Fraction-I. The SFC did not drop to 0% at body temperature, which was shifted to 0% above 40°C for both the stearin fractions, which indicates it is heat-resistant. This study shows that the BKF-stearins fractions could be used as suitable raw materials for developing new fatty products in the food industry, especially the confectionery industries.