

## **Heat stability of fatty acids of selected blended palm oils during potato frying**

### **ABSTRACT**

The study aimed to determine the hydrolytic stability of free fatty acid (FFA) and fatty acid composition (FAC) of selected palm oil (PO) blended with corn oil (POCO), sesame oil (POSO), and rice bran oil (PORBO). The blended POs were tested for their stability and fatty acid changes of the unheated oils after 10 and 20 times of potato frying. The FAC was determined using gas chromatography. As the oils were being heat treated for 0-20 times, the most significant changes were the increased in SFA and MUFA levels, and the reduction of PUFA that observed in the blended POs. The blended oils also had increased FFA contents after 20 times of potato frying. POCO was the most stable blended oil in terms of hydrolytic stability. The findings suggest that there is an improve in the quality of PO after blended with vegetable oils, especially its FAC.

**Keyword:** Hydrolytic stability; Blended oil; Palm oil; Fatty acid composition; Saturated fat