

ABSTRACT

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STUDY OF PHYSICOCHEMICAL QUALITIES OF PALM-CANOLA COMPOSITE OIL DURING INTERMITTENT DEEP FRYING

(xii + 74 halaman: 14 tabel, 17 gambar, dan 8 lampiran)

Oil blending is an economical method to modify and improve the characteristics of vegetable oil. This research was aimed to study the physicochemical quality of palm-canola composite oil during the intermittent frying of soybean curd (deep-fat frying). Palm oil was blended with canola oil in different ratios (100:0, 90:10, 80:20, and 70:30). Two hours of frying was performed everyday for 4 consecutive days. The result showed that palm-canola composite oil compared to control (palm oil) alone increased the quality of frying oil by the decreased of viscosity, yellowness index (YI), Totox value (TV), free fatty acid (FFA) value and the oil absorption in soybean curd. However, the blends indicated unstable towards oxidation reaction which can be seen from peroxide value (PV) and p-anisidine value (p-AV). Different frying time significantly affected oil degradation and it can be seen from all parameter, while oil absorption of fried soybean curd was not significantly affected. Palm-canola composite oil with ratio 90:10 was the best ratio which can lowered the rate of oil degradation. Therefore, this research indicated that palm-canola composite oil can reduce the hydrolysis and polymerization reaction of frying oil but not for oxidation reaction of palm frying oil.

Keywords: Blending oil, canola oil, intermittent frying, oil degradation, palm oil

References: 63 (1982-2014)