



## Quality Evaluation of some Deep Frying Oils and Deteration during Continuous and Intermittent Usage<sup>#</sup>

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**Abstract:** Frying process is popular for being a rapid food preparation process and for the unique characteristics of flavor and appearance. However, the frying oil eventually contains a number of harmful components affect the oil quality and therefore affects the quality of foods. This study evaluated the quality of palm oil, sunflower oil, corn oil during frying of fresh and frozen potatoes. The chemical parameters TPM (total polar material), acidity and physical parameter smoke point were considered for the appropriate time to change degraded oil. The results showed that the content of total polar material and acid value in these three kinds of oils increased linearly with frying time ranking from the more resistant: palm oil > sunflower oil > corn oil. Palm oil was undertaken to compare deterioration in continuous and intermittent frying. Continuous frying was carried out for eight hours with hourly replenishment with fresh oil to maintain the constant volume. Intermittent frying was done for two hours every day for four days without replenishment. Samples drawn at regular intervals were analyzed for TPM.

**Keywords:** *frying oil, TPM, discard.*

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