

## **THE QUALITY OF SUNFLOWER OIL AND PALM OLEIN DURING THE PRODUCTION OF FRENCH FRIES**

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The refined sunflower and palm oil are used in the food industry for the production of French fries. Literary data have been shown that the palm oil had less tendency to degradation than sunflower oil, due to its fatty acid composition. However, palm olein is a palm oil fraction and therefore has a different composition of fatty acids. The aim of this study was to investigate quality of the refined palm olein in relation to the refined sunflower oil during the production of French fries. The oil samples were used for multiple frying during seven days (40 minutes per day at a temperature of 165 °C). The peroxide number and free fatty acids content (acid number) were determined by standard analytical methods. The results showed that the peroxide number in sunflower oil and palm olein increased by 75.0% and 77.8%, while the acid number increased by 50.0% and 26.8%, respectively, in relation to their initial values in fresh oil samples. Based on these results it can be concluded that the palm olein was more suitable for frying. However, this finding cannot be indicated with certainty because the quality of the oil depends on many more parameters, not only of analyzed in this paper.

***Keywords: sunflower oil, palm olein, peroxide number, acid number***

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