

# 3<sup>RD</sup> GLOBAL FOOD SECURITY, FOOD SAFETY & SUSTAINABILITY CONFERENCE

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## Organoleptic assessment of edible vegetable oils with Imarsil® and Activated charcoal

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Edible oils play vital role in a well-balanced diet. However, aflatoxin is a major mycotoxin known to frequently contaminate poorly stored foods and consequently affect the health of animals. This study was carried out to investigate the aflatoxin status of the oils sold in Nigeria and detoxification using local and inexpensive adsorbents “Imarsil® and activated charcoal” and also carry out sensory evaluation of the adsorbed oils. Ten samples of edible vegetable oils from different plant sources such as canola, palm-kernel, sunflower, olive, groundnut, soya-beans, coconut, cotton seed, palm and corn oils were purchased from Nigeria markets and assessed for fungi and aflatoxins using standard microbiological procedures and high performance liquid chromatography (HPLC). Corn oil, Coconut oil, Olive oil, Soya oil, Palm kernel oil, Palm oil and Groundnut oil had the following aflatoxin concentrations respectively; 157ng/kg, 49ng/kg, 33ng/kg, 28ng/kg, 9ng/kg, 5ng/kg and 4ng/kg while Cotton oil, Sun-flower oil and Canola oil had no detectable aflatoxins. Adsorption of aflatoxins in contaminated samples using Imarsil® and activated charcoal gave 100% and 85% reduction respectively. Sensory evaluation carried out using Imarsil® treated vegetable oils had good organoleptic properties (colour and flavour) while activated charcoal-treated vegetable oils were dull-coloured & off-flavour.

### Biography

Oni Eniola is a doctoral student of Food and Industrial Microbiology Federal University of Agriculture Abeokuta Nigeria. She is 36 years and her area of interest is Food Safety.

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