



## EDITORIAL

This has been a very busy six months. We welcomed Aurelia Van Wyk as our trainee analyst and she has performed excellently in learning the ropes under supervision of Mrs. Andri Van Wyk. As always our objectives are:

### SAFOI OBJECTIVES

To terminate the consumption of unhealthy abused oils and fats especially by our poor communities.

To develop and promote effective oil waste management procedures.

To terminate misrepresentation practices.

To promote the Steward's Principle.

## PROGRESS

The following progress was made in various aspects of our set objectives.

### 1 FRYING OIL & FAT ANALYSIS

Our analytical section steered by Prof. Carlien Pohl and Mrs. Andri Van Wyk and Miss Aurelia Van Wyk has analyzed various frying oil samples from the Department of Health and different industries.

#### SUMMARY OF RESULTS

**Table 1**

Quality of used frying oils and fats since December 2014. The percentage of samples above South African regulatory limits based on polymerised triglycerides (PTG) is included.

Drawn by:	No. samples analysed	% Samples above PTG limits
Industry*	178	0.0
Dept of Health (North West Province)	55	0.2
<b>TOTAL</b>	<b>178</b>	

According to The Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act no. 54 of 1972) published on 16 August 1996 in S.A., oil is deemed to be harmful or injurious to human health, unless they contain less than 16% PTGs and/or 25% PCs.

*\*Some practicing the Steward's Principle*

The oil with the highest % PTGs was obtained from the North West Province Department of Health and contained 31.8% PTGs, well above the legal limit.

Please note that it is assumed that the used oil samples have not been cleaned by any means that may lead to colour changes and that the natural progression of oil breakdown has not been tampered with.

**Table 2**

Quality of fresh unused oil since December 2014 (based on fatty acid composition).

Oil type:	No. samples analysed	No. of samples not complying with the particular Codex Standards
Palm	61	0
Sunflower	57	0
HO sunflower	5	0
Canola	4	0
<b>TOTAL</b>	<b>102</b>	<b>0</b>

### 2 OIL ANALYSES FOR INDUSTRY

Analyses were performed on various products for Rossgro Feeds, Precision Oils, Southern Oils, AJ Oils, Bospoort Beskuit, Energy Oils, Chem Nutri Analytical and Willowton Oil. We would like to urge all members of the oil industry to use our services if there are any questions regarding the quality or authenticity of oil.

### 3 LIST OF ANALYSES DONE BY SAFOI

Below is a list of the analyses that we currently perform.

- Polymerised triglycerides
- Fatty acids
- Total lipid percentage
- Peroxide Value
- Moisture
- Impurities
- Free fatty acids/Acid Value
- Iodine Value
- Density
- Refractive Index
- Oil extraction from solids
- P-Anisidine
- TBA (Malondialdehyde content)
- Rancimat
- Refractive Index
- Omega 3 & 6
- Solvent extraction (Soxhlet)
- Shelflife

## CONTACT

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