

FINAL REPORT

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Report Title: **Fatty Acid Composition Analysis of Moringa Oil**
Report Number: **150244**
Brief: **Fatty Acid Analysis**
Date of Request: 22 September 2015
Work Commenced: 29 September 2015
Date of Report: 01 October 2015
Technical Staff: M. Menziwa (N.D. Analytical Chemistry)
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Certified by:

1. Sample Reception & Treatment

The sample was received on the 22nd of September 2015 and stored at room temperature prior to analysis.

2. Methodology

A standard in-house laboratory method was employed for the fat analyses and referenced against AOAC-accredited method.¹

3. Results

Table 1: Total fatty acid analysis results for the sample supplied. Results are an average of duplicate determinations.

| Fat | Fatty acid | Fatty acid (%) | Composition (%) |
|-------------------------|--------------------------|----------------|-----------------|
| Saturated | Palmitic acid (C16) | 6.80 | 6.92 |
| | Stearic acid (C18) | 6.24 | 6.34 |
| | Arachidic acid (C20) | 2.57 | 2.61 |
| | Behenic acid (C22) | 7.26 | 7.38 |
| | Lignoceric (C24) | 1.26 | 1.28 |
| Mono-unsaturated | Palmitoleic acid (C16:1) | 1.56 | 1.58 |
| | Oleic acid (C18:1) | 69.11 | 70.29 |
| Poly-unsaturated | Linoleic acid (C18:2) | 0.73 | 0.74 |
| | Linolenic acid (C18:3) | 2.82 | 2.86 |

| | | |
|------------------|--------------|------------|
| Total Fat | 98.33 | 100 |
|------------------|--------------|------------|

4. Discussion & Recommendations

The results of the total fat analysis of the moringa oil are to be used at the client's discretion.

5. Declaration

I declare that all analyses were performed with scientific protocols strictly adhered to and that the results are reliable within the scope of the methods.



L. Dolley

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References

1. AOAC 996.06 (2005) 18th Edition, Chapter 41, pg. 20 – 24 (Oils and Fat).

Notes

Herewith explanatory notes in terms of abbreviations and other terms needing clarification in this report:

g: gram

AOAC: Association of Official Analytical Chemists