

RESEARCH, TESTING & STANDARDS

Development of a successful biotrade depends on research, standards and testing to provide evidence for claimed benefits and give industry confidence in the quality of plant ingredients and products.

Quality assurance for indigenous vegetable oils

The Botanicals Trusted and Authenticated Fingerprinting project (b-TAF) is tackling the challenge of high-value indigenous vegetable oils being adulterated, with a focus on Marula and Baobab. Adulterated oils can be sold at lower prices, causing a loss of trust in the sector, and forcing authentic producers out of the market.

Working closely with industry partners, the b-TAF team is collecting Marula samples from across southern Africa, and Baobab from across the continent. Extraction methods are being documented and comparative results made accessible on a database for producers, including information on oil composition and quality, fatty acid profile, and sterol and tocopherol content. The aim is to increase the accuracy of detecting adulteration in vegetable oils by 80-90%.

The project, run by Precision Oil Laboratories in South Africa and iDEALX integrated scientific services in Namibia, supports standards development, competitiveness and market access for Marula and Baobab, while highlighting the importance of science, technology and research in the biotrade.

Project partners include the Southern African Essential Oils Producers' Association, African Baobab Alliance, Namibia Network of the Cosmetics industry (NANCI), Tshwane University of Technology (TUT) and the University of Pretoria (UP).



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Effects of Baobab fruit powder on gut and cardiometabolic health in obesity

The South African Medical Research Council (SAMRC), University of Cape Town and African Baobab Alliance (ABA) are investigating a link between Baobab and gut and cardiometabolic health.

Obesity and diabetes are modern day pandemics linked to unhealthy lifestyle and diets comprising highly-processed calorie-dense foods with low fibre content. Adequate fibre intake is important for maintaining gut health, which plays a critical role in the development of metabolic diseases. Since about 50% of Baobab fruit powder is fibre, it has potential to positively affect gut health.

The randomised double-blind placebo-controlled trial aims to investigate effects of regular Baobab fruit powder consumption on gut health in people with obesity. It is the first study of its kind.

Fifty men and women living with obesity will be randomly assigned to consume Baobab fruit powder or a placebo for 45 days. Markers of gut health will be measured before and after the research, which is registered on the Pan African Clinical Trial Registry.

The results will increase industry and consumer awareness of Baobab fruit powder, leading to product development and investment, increased production and expanded employment. Preliminary results will be reported in 2024 and final outcomes presented at scientific meetings and in scientific journals. The research will contribute to the training of post-graduate students.



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