

Essential Oil Express



3rd South African Conference on Essential and Vegetable oils

25 - 26 July • 2024 Pretoria National Botanical Gardens, South Africa

The 3rd South African Conference on Essential and Vegetable Oils explored a wide range of topics, including navigating global standards and regulations, the crucial role of market access and quality assurance and the importance of agricultural innovation for a sustainable essential and vegetable oils industry. Future strategies for sustainable supply chains covered both wild harvesting and cultivation and featured contributions from representatives from Angola, Namibia and Zimbabwe reporting on production and challenges. The conference was rounded off with presentations and discussions on the importance of leveraging local and global partnerships for collaborative success.

To date, three South African conferences on Essential and Vegetable Oils have been held successfully with the support of CQSP-SA in collaboration with the dtic. The speakers and the titles of their presentations can be downloaded from the website and the video on the conference can be downloaded with the QR code provided. Alternatively visit our website www.saeopa.co.za



Scan to view 3rd SAEOPA LEOPA conference video.



The 2 day conference was attended by 200 delegates in person from all over South Africa, some were a government, academia, producer and corporate delegates. 11 exhibitors stands of producer members and 2 demonstrations on extraction and technical aspects. There were sessions for questions and answers and evaluation was done at the end of each day. The media was also present and several interviews were made with different role players. Link to the video of the conference: <https://kaimara.smugmug.com/UNIDO-Conference-on-Essential-Oils/n-t7mRpf>

FROM THE EDITORS DESK

Karen Swanepoel

Executive Director Southern African Essential Oil Producers Association



The last 6 months have been a period packed with exciting events and opportunities with a fresh wind of change on the horizon. We are positive about the future for the industry as new applications including essential oils and vegetable oils are seen on the market. Very few commodities experience a constant demand as new products are increasingly developed. The industry remains an example where job creation and skills development in tandem can improve the life of everybody. Lets take hands and work together in this dynamic field where agriculture, innovation, technology, health and wellness meet. Our beautiful planet needs all hands on deck, now more than ever!

We wish to thank all the producers for their continued loyal support.

On behalf of all the members of SAEOPA, we welcome all the new members of SAEOPA.

CONGRATULATIONS



Prof Ben-Erik van Wyk was the key note speaker at the 3rd Conference. He received Lifetime Award at the National Science Technology Awards 2024. Prof Ben-Erik van Wyk, Chair: Department of Science and Innovation (DSI)/National Research Foundation (NRF) South African Research Chairs Initiative (SARChI) in Indigenous Plant Use, University of Johannesburg (UJ).

He received the award for his contribution as a botanist and an authority on traditional and commercial uses of plants, with numerous books and publications covering all or most of the socially relevant and commercialised plant species of the world. He was also awarded a certificate for continued research on aromatic plants at the 3rd conference from SAEOPA

Dr Theo de Jager was the key note speaker of the Conference in 2022. We would like to congratulate him representing Saai, on receiving the prestigious BPI Business Leadership Excellence Award for 2024, which recognises his immense contribution to the development of agriculture in South Africa and across the continent. He is congratulated by the Minister of Agriculture, Mr John Steenhuizen.



SAEOPA PRESENTED AT THE INDIGENOUS PLANT USE FORUM



The Indigenous Plant Use Forum (IPUF) has been an instrumental platform since its inception in 1993, driven by the National Research Foundation of South Africa (NRF). Established to champion the sustainable use of the southern African flora, IPUF has evolved into a dynamic force promoting cultural, socio-economic, and scientific benefits.

The annual IPUF conferences, known for their uniqueness and multidisciplinary nature, serve as a nexus for diverse interest groups. Academics, traditional healers, anthropologists, businesspeople, resource managers, conservationists, policymakers, and enthusiasts converge to explore the sustainable utilisation of the southern African flora.

Over its 25-year history, IPUF has had enthusiastic support from South Africa and beyond, playing a pivotal role in transforming science in the region. As the 26th IPUF conference at the remarkable !Khwa ttu in 2024, the significance of this milestone was realized. Under the continued leadership of Prof Ben-Erik van Wyk, who has been the chairman since 1995, this edition marks a quarter-century of IPUF conferences. It provided a unique opportunity to reflect on the forum's impact over the years, assessing its contributions to the original purpose outlined in 1993. The 26th IPUF was a special event, building on the legacy of its predecessors. It invited participants to explore the ways in which ancient plant use knowledge can inspire new innovations and socio-economic development. Then in this picturesque setting at !Khwa ttu, new connections, gaining fresh insights, and advancing the shared commitment to the flourishing future of the southern African flora and its sustainable utilisation were evident.

Like many years since the formation of IPUF, SAEOPA was represented by Rosemary du Preez and Karen Swanepoel. Rosemary did a presentation on the Overview of 25 years of research on indigenous fruit development and Karen on the Standards for Marula seed oil as used in natural ingredients for cosmetics.



The IPUF 2024, led by Prof. Ben-Erik Van Wyk, the chairman of IPUF, and Mr. Vuyisile Hobololo, Head of Indigenous Knowledge Systems, TIA, acknowledged the outstanding contributions of Ms. Karen Swanepoel, the Executive Director of the Southern African Essential Oil Producer Association (SAEOPA), by presenting her with a Lifetime Achievement Award in recognition of her exceptional work throughout the years.

SAEOPA was invited to have a special session for its 25th year celebration, during IPUF 2025.

The next IPUF conference will held in Gauteng in August 2025.

GOOD NEWS ON STATUS OF BAOBAB

Baobabs are icons that have been part of Africa's landscapes for around 12 million years. With crowns that can grow as large as three tennis courts, they are important for more than their role in ecosystems. The trees are featured in cultural traditions across Africa, and they also support the livelihoods of thousands of people who harvest baobab fruit.

Baobab oil is known to be used effectively for damage repair and included in many cosmetic products. Its popularity is increasing and the status of the tress in nature is always monitored.

Previously studies warned that the massive trees were threatened and several reasons were investigated. This was based on reports of many trees that fell over and others dying suddenly. It has now been found that the trees are regrowing and that the reputation of resilience of Baobab is certainly true.

Sarah Venter, a baobab ecologist at the University of the Witwatersrand in South Africa reacted. She had not seen signs in her own field work that the continent's ancient baobabs were in trouble, so she decided to conduct her own investigation, which was also published, earlier this year, in Nature Plants.

Dr. Venter found that just five of the trees flagged in the 2018 paper had actually died, while the other 10 were healthy or regrowing. An additional 13 exceptionally large baobabs that Dr. Venter had visited in Southern Africa also appeared to be doing well. In a review of recently published literature, Dr. Venter showed that millions of baobabs populate the continent, including in areas that have endured severe droughts or floods. (Six species of baobabs in Madagascar are imperiled by deforestation.) These findings suggest that "there's a very healthy population of baobabs across Africa," she said.

Dr. Venter traveled around Southern Africa to survey the health of adult baobab trees of all sizes. She found a normal distribution of individuals, and no signs of out-of-the-ordinary disease or mortality. In one group of 116 trees that Dr. Venter has monitored since 1998, for example, none of the adults have died in the past 26 years, despite numerous droughts. She also visited most of the exceptionally old and large trees included in the 2018 study. For the five trees that perished, she found that only one death seemed to be linked to drought. The other four baobabs appeared to have died randomly, during periods of normal rainfall and temperature. "Without being at the trees during time of death, the exact cause cannot be said for certain," she said. Most likely, though, their large, heavy limbs had fallen off, and the breaks had become infected, she said. Of five trees in the 2018 study reported to have collapsed, Dr. Venter found that four were growing back. This was not a surprise, she said, because "it's part of baobab ecology to collapse and grow out again from the stems that are left."

Drought driven by climate change did not seem to have contributed to those trees' collapse either, she added. Jens Gebauer, a horticulturist at the Rhine-Waal University of Applied Sciences in Germany who was not involved in the research, agreed with her conclusion "that climate change is not the main cause for some of the old baobabs' dying." "In general, the baobab is a very climate-resilient plant species," Dr. Gebauer said.

<https://www.nytimes.com/2024/09/27/science/baobab-trees-africa-climate-change.html?>



Dr Sarah Venter



The Dorsland Tree, a baobab in Nyae Nyae Conservancy in Namibia, has collapsed several times but is regrowing.



The Glencoe Baobab in Hoedspruit, South Africa, in 2018. It split in 2009 into several stout parts low to the ground.



Regrowth in 2023 of the Platland Tree in Modjadjiskloof, South Africa, which collapsed in 2016



Hop Oils – Preserving the heart of beer. Wanda du Plessis



Naturalists came to associate essential oils as a vital force that clearly identifies the intangibility of the aroma that emanates from them. Originating from outside the hop industry and being involved in engineering and medicine has proven to be valuable experience for the two founders Wanda du Plessis and Jaco de la Rouviere. Although change is somewhat uncomfortable to suggest, a fresh approach is needed in most industries to ensure progress. The hop industry is no different. The seasonality, short harvest periods and expensive growing conditions requires the industry to rely on quality relationships to prosper.

Trust and teamwork are fostered as a culture but most importantly, Preserve Botanica stepped up to meet the challenges facing the industry with innovative solutions and excellent results. Only the cones are picked for beermaking. The rest of the bine, leaf and bract are discarded. The process results in huge amounts of agricultural waste generated each season. They use discarded hop material namely the bract and unprocessed hop cones and leaf for research as not to interfere with operations during the six-week harvest period. The engineering team looked at industrial scale solutions to utilize this wasted opportunity. Steam distillation opted to be the most affordable solution at scale. 'Garage trials' in 2021 provided data on possible yields, equipment parameters, scalability and cost. Hops were collected from two waste streams alongside hop farm operations. These hops were then processed using wet steam to release the aromatic oils we all know so well as the unique flavour in beer. The oils were handled delicately and as an industry first, refined novel hop oils from local upcycled South African hop varieties were produced.

Hops are extremely complicated plants. The essential oils in hops are represented by 0.1-2.0% by dry hop weight depending on variety. Flavour and aroma are derived from three groups: hydrocarbon compounds, oxygenated compounds and sulphur-containing compounds (thiols). While these components provide aroma (smell as well as taste) to beverages, is also know that essential oils have anti-microbial as well as anti-oxidant activities. The importance of the oxygenated fractions being about 14%, that can contribute up to 34% of hop flavour, because they are more soluble than hydrocarbon compounds. Because hops contain numerous aromatic components, it is difficult to say with certainty which compounds are solely responsible for contributing directly to specific aroma characteristics of a variety.

The distinguishing process of using fresh hop material for distillation has proven to be most effective in retaining hop aroma lost during drying. Loosely bound volatile fractions are abundantly available in Preserve Botanica Hop Oils, about 3000 times more so than in hop pellets. In various brewing trials, it became apparent that 0.1 – 0.3g oil / hl beer is more than adequate to achieve desired outcomes which reduces cost to produce. Hop hydrosol is the condensate from which the oils are separated. This product is rich in water soluble aroma fractions for beyond beer applications like teas, flavoured waters and kombucha to name a few.

170+ compounds available in oils from fresh hops were recognised by Warren Wiese, Head Brewer at Newlands Spring Brewing Company. "Substituting a significant portion of dry hopping with oil would reduce the volume lost as there is less vegetative plant material in the fermentation or maturation vessel. The oil can be added post filtration to minimize flavour loss due to CO2 scrubbing. The oils from Preserve Botanica made a definite change to the beer that received a dose in 10,000-Miles Fresh Hop Ale. Reputable craft brewer Nick Smith from Soul Barrel Brewing used the Southern Passion Hop oil blended with pellets at 0.2ml/hl at the end of fermentation.

Adding hop oil delivers beautiful, fresh passionfruit notes with a very clean, fruity and aromatic finish. The famous JC Steyn from Devils Peak Beer Company also loves the idea of using hop oil additions to establish desired hoppy aromas. As a special project initiated by Preserve Botanica, SAB Hop Farms, On Tap Magazine and Prof. Olga de Smidt; Associate Professor & Deputy Director: CAFSaB Research at the Central University of Technology of the FreeState, craft enthusiasts and home brewers will have the opportunity to enjoy South African variety hop oils as their commitment to innovative upcycled verified products from locally grown hops. Preserve Botanica has launched 5 variety specific hop oil products in different size units available for small and large application. In celebration of this milestone, a special collection of five x 1g units of Southern Promise, Southern Passion, Southern Star, Southern Dawn and African Queen Hop Oils has been prepared for comparison. Certificates of analysis are available on request and oils are ISO:17025 certified as being undiluted and without any impurities.

Please visit www.preservebotanica.co.za for more information. Cheers!



SAEOPA leads the study tour of 31 delegates from Lesotho - sponsored by GIZ Lesotho, and included ministries of trade, agriculture, University of Lesotho and producers of natural products.

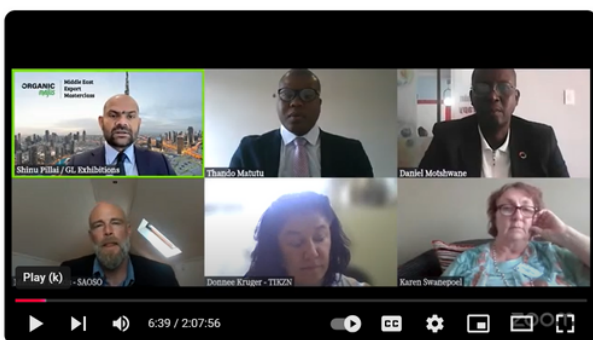
.Day 1 with Lesotho delegation. We visited the laboratory at NMISA where informative talks were given on quality tests followed by a tour through the laboratory. The delegation were given time to discuss and a question and answer sessions proved intensive interest in the industry. We then proceeded to the CSIR facility for extraction of cannabis and hemp. It was a highlight for some to be exposed to the technologies. The delegation was invited to SEED-TO-GROW and saw integrated agriculture at its best.

Day 2 with Delegation from Lesotho visiting Rosemary Hill. A very informative talk by Huibert Franken was followed by a sight of the organic compost making. The tour through the Fields of Rosemary and Lavender was an eye opener. Other herbs like Artemisia, Spearmint, Citronella, Bay leaf and Helichrysum species were discussed, and each delegate got a bunch to smell. The famous distillery tour was another highlight. The day was concluded with a walk in the National Botanical Garden. More species with potential were identified. What a wonderful day of sharing passion, experience and interaction we had as SAEOPA with the 31 delegates.



Day 3 of the study tour by Lesotho delegates. We welcomed the dtic as well. Presentations were given by SAEOPA on what we do and who we are. Training reports on cultivation, labelling and packaging were delivered. The question-and-answer sessions were proof of intensive interest and future engagements. The species with potential for expanding production were identified and included indigenous Artemisia afra, Helichrysum, Pelargonium and Erioccephalus species. Exotic species known in Lesotho include Rosehip and Rosemary. The enthusiasm of the group was contagious! So long Lesotho, all if the best on your production journey! This was a wonderful experience of sharing.

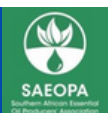
SAEOPA PRESENTED AT THE MIDDLE EAST MARKET EXPORT MASTER CLASS



Organic Majlis - Middle East Export Master Class - South Africa

Presenters included, Daniel Motshwane - Afrique Rising, Donnee Kruger - TIKZN. Karen Swanepoel - SAEOPA, Matt Purkis - SAOSO, Mahlatse Mothapo - dtic, Jenny Robin - Glexhibitions, Thando Matutu - Bioturf, Shinu Pillai - GL Exhibitions

<https://www.youtube.com/live/YxpoqVqORKY>



Recent chemical agency reclassification as reprotoxic substance likely to lead to EU cosmetics ban for tea tree extract

Tea tree is one of the top export oils from South Africa and Australia, employing many people in rural areas.

It is widely used in cosmetics and personal care products for its skin conditioning, complexion-clearing, and antibacterial properties, has been classified as a reproductive toxin by the European Chemicals Agency Risk Assessment Committee (ECHA RAC), making its eventual removal from the European cosmetics marketplace likely. The ECHA RAC's December 2023 Category 1B (H360) classification of tea tree extract as a reprotoxic substance is one step toward a harmonized classification (CLH) as a hazard of highest concern in EU regulations and a cosmetic product ban. If a full cosmetics ban is implemented without exemption, this will have significant consequences for all brands and manufacturers selling cosmetic products containing tea tree oil in the EU, and all affected products will need be removed from the market or reformulated to remove tea tree oil.

Substances classified as CMRs (carcinogenic, mutagenic, and reprotoxic) in EU Classification, Labelling and Packaging (CLP) regulations, including those classified as Category 1B (H360), are banned for use in EU cosmetics unless industry members receive an exemption by demonstrating safe use according to specific criteria as per Article 15 of the EU Cosmetics Regulation (EC) 1223/2009. Suppliers of tea tree oil may submit a safety dossier to the EU Scientific Committee on Consumer Safety (SCCS) to apply for this exemption. There is currently no certainty that the ingredient will be defended, and the likelihood that tea tree extract will be banned in cosmetics in the EU and Northern Ireland (where EU rules apply) is high, pending publication of the final legislation. If confirmed, this change will be published as an Adaptation to Technical and Scientific Progress (ATP) to CLP, followed by the addition of tea tree oil to Annex II (prohibited substances) of the EU cosmetics regulation via the next CMR omnibus. Cosmetics already on the market that contain tea tree oil could then continue to be sold until the new CMR omnibus took effect, at which point the remaining stock would have to be removed from circulation.

Implications For U.K. and U.S. markets

As the U.K. now operates under a separate chemical and cosmetics regulatory framework to the EU, a potential tea tree oil ban will not apply to cosmetics sold in Great Britain. This could change if U.K. cosmetics regulators follow the EU in a future decision to reclassify tea tree oil as a CMR substance. For tea tree oil products sold in the U.S., the formally designated responsible person should consider how they will be able to meet the requirement to substantiate safety of products containing tea tree oil under The Modernization of Cosmetics Regulation Act of 2022 (MoCRA), following the EU reclassification.

Australia - ATTIA (Australian Tea Tree Industry Association) has reacted already in social media platforms and South Africa is also in negotiation with them and the SA government. We urge all the producers and users of tea tree in South Africa to stand together as we take action in discussions with the ministers of Agriculture, Trade industry and competition as well as with export councils. We will be signing a memorandum of concern as this has a serious effect of employment in impoverished areas. The producers of SAEOPA has formed a chamber for tea tree producers and role players including formulators and agents. Please support us in the challenge and send an email to get more information to; Karen Swanepoel karen@saeopa.co.za or Ryan Biggs ryan@ayanda oils.com

<https://www.exponent.com/article/tea-tree-oil-faces-eu-cosmetics-ban>

https://static1.squarespace.com/static/64897e758f2a707fe985d1d9/t/65ce6d97c039bc6822f12875/1708027510484/ISSUE+BRIEF+V2.3_FEB24.pdf



Ryan Biggs
Ayanda Oils

TRAINING ON QUALITY

THE FOUNDATION OF WORLD-CLASS ESSENTIAL AND VEGETABLE OILS

The quality of essential and vegetable oils produced in South Africa has a competitive advantage on the international market. The SECO-funded UNIDO implemented Global Quality and Standards Programme South Africa Project (GQSP-SA) conducted a 2 day training on quality in essential and vegetable seed oils. 15 selected producers of indigenous species attended with interest the course funded by UNIDO GQSP-SA Programme.

This program is exclusively for oil producers/processors and is designed to support new intakes, offering priority to those focusing on GQSP-SA project-specific oils (Essential oils: Buchu, Cape chamomile, Helichrysum, Lippia and Rose geranium, Vegetable oils: Baobab, Kalahari melon, Marula, Manketti/Mongongo and Ximenia) Based on applications most provinces were represented including 2 producers from Namibia and Zimbabwe. We are looking forward to part 2 scheduled for November 2024.



Anya Knoetze is the facilitator for the training.



To take part in the support scheme for testing oils of the focus species Buchu, Cape chamomile, Helichrysum, Lippia and Rose geranium, Vegetable oils: Baobab, Kalahari melon, Marula, Manketti/Mongongo and Ximenia
click on the link :
<https://www.saeopa.co.za/news/unido-gqsp-support-scheme-and-opportunity-to-test-oils/>