



1St South African Conference on Essential and Vegetable Oils

Industry milestones, sharing successes and demystifying market requirements

Leriba Hotel, Centurion, Pretoria • 25 – 26 July 2019













Introduction

In September 2017, the United Nations Industrial Development Organization (UNIDO) launched a 42-month project, funded by the Swiss State Secretariat for Economic Affairs (SECO), on strengthening the quality of essential and vegetable oils exported from South Africa.

This initiative, if sufficiently supported and successfully executed, could greatly contribute to developing a phenomenal industry for South Africa, and in turn effectively create employment opportunities across the whole value chain, from cultivation through exporting, stimulating the economy of South Africa.

The 1st South African Conference on Essential and Vegetable Oils was presented to great acclaim on 25-26 July 2019 in Pretoria, South Africa jointly funded by GQSP-SA and the Department of Trade and Industry (the dti) and in collaboration with the Southern African Essential Oils Producers' Association (SAEOPA).





Attentive delegates during the opening of the conference session.



The Global Quality and Standards Programme – South Africa (GQSP-SA)

The GQSP-SA Project, "Strengthening the quality of essential and vegetable oils exports from South Africa" aims, through its interventions, to facilitate market access for SMEs whose products are destined for the food, health and cosmetic markets.

In strengthening standards and quality compliance capacity to gain market access, it is also necessary to strengthen the technical quality infrastructure institutions that support trade. The Project has three outcomes to respond to the main compliance challenges identified for the South African essential and vegetable oils destined for food, pharmaceutical and cosmetic markets.

OUTCOME 1:

The technical competence and sustainability of the National Quality Infrastructure System and the conformity assessment services that serve the selected value chains are enhanced.

OUTCOME 2:

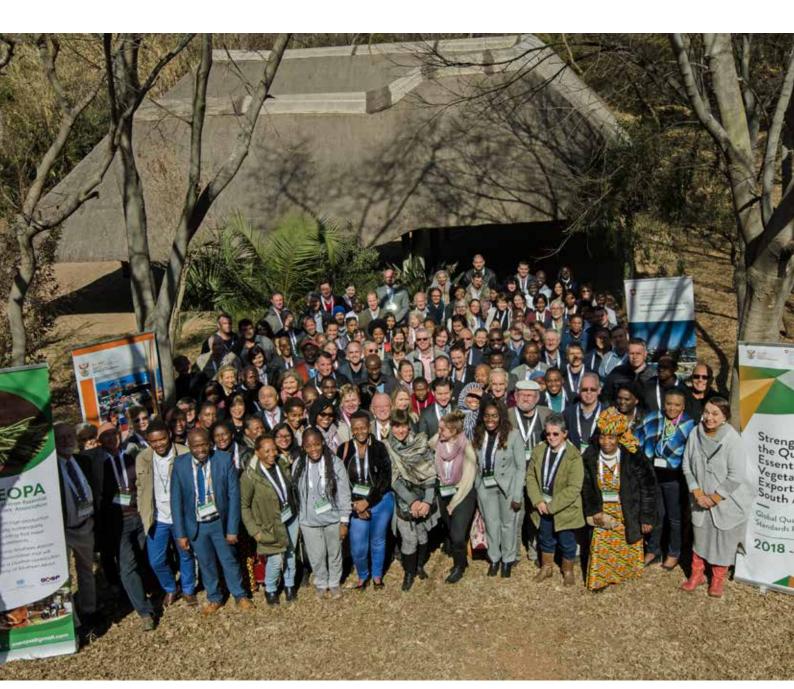
SME compliance with international standards and technical regulations is enhanced.

OUTCOME 3:

A culture for quality is promoted.







National, Regional and International delegates.



The conference rationale and context

The demand for both essential oils and vegetable oils is escalating worldwide, which opens up a wonderful opportunity for Southern Africa with its diversity of climate and soil types to excel and prove themselves a worthy contender in exporting both essential and vegetable oils for world consumption. But in order to compete, this industry has to become a quality-driven industry.

Essential and vegetable oils are sought after by the cosmetic, food and health industries. These industries are rapidly growing, especially for products that contain natural, organic ingredients. The impact of this sector on local economies has been demonstrated in Brazil, Morocco and Indonesia.

The Department of Trade and Industry of South Africa (the dti), Switzerland through the Swiss State Secretariat for Economic Affairs (SECO), the United Nations Industrial Development Organization (UNIDO), and the South African Essential Oils Producers' Association (SAEOPA) hosted the first South African Conference on Essential and Vegetable Oils to facilitate quality exports.

Stakeholders identified knowledge gaps that are needed to grow this sector and some knowledge gaps. These include production (volumes, quality and innovation), procurement of raw materials and packaging, knowledge of international regulatory requirements and recognised testing facilities, understanding global market requirements, pricing and distribution, access to finance, Access and Benefit-Sharing (ABS) and the need for improved communication and cooperation between stakeholders. The conference was structured to answer the most daunting questions SMEs may have when considering to access markets and provide realistic solutions and success stories, motivating them to focus on quality. The conference secured speakers and additional panellists to address these needs.

The theme of "Industry Milestones, Sharing Successes and Demystifying Market Requirements" was brought to light by renowned Oil and Quality Infrastructure experts from South Africa as well as Australia, Europe and Turkey. It brought together 150 oil producers from all over South Africa and Southern Africa and armed them with highly relevant information from proven experts on the burning issues they face, particularly with regards to their successful entry into the global market place.

During the Opening of the Conference session, the following were highlighted:

"The growth in this sector will stimulate increased production (volumes, quality and innovation) of vegetable and essential oils, improved packaging, knowledge of regulatory requirements and internationally recognised testing facilities, understanding of market (and export) requirements, better pricing and distribution. But in order to compete, this industry has to become a quality-driven industry", said Claudy Steyn, Chief Director: Chemicals, Cosmetics, Plastics and Pharmaceuticals, the dti.

"This conference represents the commitment from the industry and the South African Government to join forces to mobilize the potential of the sector and we are proud to be a partner in this milestone to achieve their goal of becoming a global player of exporting quality products", said Nonhlanhla Halimana, Programme Manager, SECO.



SAEOPA expressed gratitude to the GQSP-SA project for supporting SAEOPA to organize this standard-setting conference and building their capacity to conduct future conferences for its members and the industry. "It is a unique opportunity for Southern African oil producers to learn from the champions who have already succeeded to access international markets and to understand the importance of embedding quality in one's enterprise, said Phillis Mphogo, Director: SAEOPA.

The public-private dialogue that this conference facilitated will assist the utilization of available public services and develop demand-driven services required by the private sector, ensuring the sustainability and efficient use of the capacity built. "This will be an important platform in the future to sustainably integrate SMEs into global markets and moreover for the achievement of 2030 Development Agenda", said Juan Pablo Davila, Industrial Development Officer, UNIDO.



Claudy Steyn, Chief Director: Chemicals, Cosmetics, Plastics and Pharmaceuticals, **the dti.**



Nonhlanhla Halimana, Programme Manager, SECO



Phillis Mphogo, Director: SAEOPA



Juan Pablo Davila, Industrial Development Officer, UNIDO

The conference was structured to answer the most daunting questions SMEs may have when considering to access markets and provide realistic solutions and success stories, motivating them to focus on quality.





Presentations

SESSION 1: STANDARDS - TO OIL OR NOT TO OIL

Moderator: Mr Christo Van der Rheede



Setting standards for essential oils from Down Under

DR IAN SOUTHWELL

The presentation outlined the function of an industry association and standards for marketing oils, both being very important for a profitable oil industry.

An industry association's objectives should include the promotion of indigenous and introduced oils and plant products; provide an organisation for networking; arrange regular meetings; appoint special purpose committees; provide a unified industry approach for industrial matters, regulations and standards; fund the objectives of the association; and co-ordinate oil research and disseminate findings to members. Networking occurs at meetings, conferences and via newsletters and other means of communication.

Consistent quality is sought using "in-house" standards, industry association standards, national standards, international standards, pharmaceutical standards, therapeutic goods registrations, World Health Organization (WHO) monographs on selected medicinal plants, etc. Reasons for standards, their selection, requirements and specifications were discussed. A proposed standard for *Backhousia citriodora* (lemon myrtle) oil, the history of tea tree oil standards (with recent chiral requirements) and recognition of Australian lavender as an ISO lavender oil, were highlighted, and images illustrating essential oil production were shown.

Primary advice to industry is to have a vibrant industry association and focused standards, both of which are vital for a successful industry.



➤ Global production and positioning South Africa in the global market

MR DENZIL PHILLIPS

Natural ingredients are a small but vital part of the industry, with its growth being faster in flavours than fragrances. The industry is dominated by 11 companies, representing 80% of global supply of F&F. Global production of essential oils (EO) is estimated at 150,000 tons.

Flavours dominate the EO sector. Organic essential oils contribute a growing proportion of the market. Aromatherapy is booming, but not yet well developed in Africa. Most value addition in the F&F sector takes place at the top of the value chain, with raw material suppliers earning a very small proportion of the total product value.

Key problems facing the industry include unsustainable wild harvesting, rising labour costs, environmental pollution, water shortage and inefficient distillation techniques. Many EO production systems are still environmentally unsustainable. Lack of investment at the bottom end of the value chain (in propagation, cultivation and harvesting), especially when compared with huge investment by the F&F industry upstream (in formulation and marketing), makes for an inefficient and old-fashioned EO.

South Africa should be a major global EO player, but the industry is constrained by lack of suitable land, water, high labour costs, cumbersome bureaucratic legislation and general lack of government support.





The status quo of Southern African production

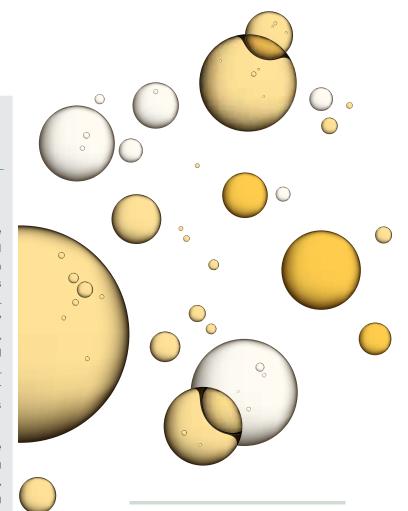
MS KAREN SWANEPOEL

Export and import figures and global supply serve to identify the major and minor oils, positioning local production of oils. The current South African production of essential oils is approximately 2 100-2 900 tons per annum, which could be substantially increased. Knowledgeable academics and good technology are available, coordination in the industry is improving, there exists a huge potential, and support is received from organisations such as UNIDO, GIZ, SECO and SIPPO. Intercropping is increasingly done with vegetables, fruit and forestry. It is also used by the mining industry as community activities.

Partnerships between producers and processors are paramount, as is the sharing of experiences among peers. Job creation and skills development are crucial, and organic production and agritourism are becoming increasingly important.

Despite the environmental challenge, e.g. drought, crops like kalahari melon seed oil are flourishing.

Selection of superior types is being done. Quality is increasingly important, with laboratories being used for batch testing. Standards for the most-produced oils are being written, which will facilitate advantages in respect of safety, higher prices, etc. The technology available was discussed. Species' conservation by cultivation, biodiversity and youth involvement is included in the plans for the development of the industry.



Volatile (evaporate rapidly), odorous/fragrant oils, which originate in certain parts of plants (various indigenous and exotic plants)

Vegetable oils are triglycerides that are extracted from the "fatty" portion of a plant (seeds, kernels and nuts).



SESSION 2: CULTIVATION - THE GOOD, THE BAD & THE UGLY

Moderator: Mr Christo Van der Rheede



Managing community projects

MRS PETRA THIESSEN-TERBLANCHE

The Hi Hanyile Essential Oils rural agro-processing enterprise is a community-owned project, funded by DSI and the CSIR as implementing agency. Funding was received from DSI with the mandate of job creation to improve the quality of life of rural communities.

Rose geranium plants for Bourbon-type essential oil were planted during experimental phases of the present enterprise. A 30-hectare farm was established, with rose geranium, lemongrass and *Lippia javanica* planted. A distillation unit and a candle-making factory were established to use these mosquito-repellent oils in candles. About 60 members from the local community benefited from this project.

The community took over in 2014 and was supposed to build on the established facilities and develop it into a sustainable agro-processing business under the guidance of SEOBI, but the enterprise has come to a stand-still.

The expectation that formerly unemployed, illiterate and poor communities have to run a business, is misplaced. Much more support and funding must be involved. Government's funding models proved to be inadequate and have to be reviewed to succeed with turning empowerment into commercial enterprises. Essential oils in rural communities hold lots of potential, but knowledge and experience gained must be used to adapt the models for inclusive development and sustainability.



> Frequently asked questions on cultivation

MS NNANA MAKHUBU

Which crop to plant depends on experts' recommendations, based on climatological conditions and market demand. Seedlings can be obtained from reputable nurseries and from essential oil farmers, most of whom produce seedlings. Distillation units can be obtained from local manufacturers. Essential oils should be stored in cellars in dark bottles, away from direct sunlight, while vegetable oils can be stored in food-grade plastic drums.

Plant density varies from crop to crop. For geranium, it would be 40 000 - 50 000 plants per hectare. Fertilising and irrigation advice can be obtained from DARDLR's production guides. It normally is the best time to harvest during the flowering stage to obtain the best quality. Manual harvesting is recommended for geranium, but mechanised harvesting is more suitable for certain species. Some areas allow for 3 - 4 harvests per year, while it is less in other areas. If the producer does not have a distillation unit, most farmers who own pots would be willing to assist emerging farmers who often lose their harvests due to a lack of support from other sources.

It is of paramount importance that growers understand the language of their crops, knowing the cultivars, its originality and lifespan.



SESSION 3: QUALITY ASSURANCE - CHANCE OR CHOICE

Moderator: Dr Elsie Meintjies



Quality assurance and community projects

DR SARAH VENTER

Not surprisingly, producers are very focused on production aspects such as supply, volumes, seasonality, machinery, certifications and market demand. However, manufacturers and brand owners have their own set of needs such as reliability, regulatory aspects, quality testing and documentation. It is important that producers make themselves fully aware of their customers' needs and requirements. This can be done by having a comprehensive specification sheet, safety data sheet and certificate of analysis for each and every batch.

The additional financial burden of community and conservation projects often have to be carried by the producer and cannot be built onto the price of the product as a higher price for a raw material can make the product uncompetitive. To get around this, EcoProducts formed a separate non-profit organisation called the Baobab Foundation, which carries the costs of corporate social responsibility projects separate to those of core business costs. The Foundation allows for customers to contribute to corporate social responsibility projects on a "voluntary" basis without it affecting the raw material cost. The Baobab Foundation is involved with supporting pre-schools, tree planting, environmental education and ecological research.



Quality control and seed oils

DR MATHILDA MOSTERT

The importance of laboratory analysis and quality control of samples should not be underestimated. Clients often feel that the cost of analysis is too high and neglect to do the necessary laboratory testing and consequent quality control of production. The perception of viewing analyses as an expense instead of an investment should be changed. Quality control in production helps clients to meet consumers' demands for better products and identify the need for any corrective action required. It is crucial for producers to compile a database of their products' characteristics to enable them to timely identify changes in quality and take corrective action.

All products are measured against a norm. Producers should do research and be au fait with the standards against which their products are measured. It is important for clients to understand why certain tests are conducted, which factors influence the results, how often analyses should be conducted and what the results mean so that they can act immediately if any variation occurs.

Accredited laboratories should be used to ensure that the quality of results obtained is measured against prescribed standards. Good quality production, supported by the correct certificates of analysis and technical documentation, is the key to successful marketing.

SESSION 3: QUALITY ASSURANCE - CHANCE OR CHOICE

Moderator: Dr Elsie Meintjies



The necessity of South African standards in the global context

PROF K HÜSNÜ CAN BASER

Essential oils are ingredients of flavour and fragrance materials for use mainly in food and beverage, perfumery, cosmetics and toiletries, wellness and aromatherapy, spa and relaxation, healthcare, pharmaceutical and chemical industries. They also possess various biological activities and in recent years their use in feeds as antibiotic substitute and growth promoter is on the rise.

The global market of essential oils stands at \$6.5 billion with a projected rise by 8.4% - 11.3% to \$14 to 15.8 billion in 2024-2025. Orange oil tops the list of most globally traded essential oils, constituting ca. 22% of the global market revenue, followed by lemon, lime, peppermint, corn mint, citronella, spearmint, geranium, clove leaf, eucalyptus, jasmine, tea tree, rosemary, lavender, etc.

South Africa, with the richness and diversity of its flora, offers opportunities to the world in terms of novel flavours and fragrances. This paper focuses on the importance of the standardisation of South African essential oils for their approval in the global flavour and fragrance markets.





SESSION 4: HARVESTING AND PROCESSING – PEOPLE, PLANTS & PRODUCTS

Moderator: Ms Sinah Mosehla



Lessons learned from community projects

MR TAFARA SHURO

Qobo Qobo Essential Oils provides an economic opportunity for rural entrepreneurs by establishing out-grower farmers from disadvantaged communities in Keiskammahoek to consistently provide top-quality oil and products. Most survive on subsistence agriculture that is complemented by government grants. Current funding models do not address sustainability.

Qobo Qobo developed a new approach to transform communities from donor dependency to a cluster of sustainable enterprises. Independent farmer units are established and assisted to sustainably grow essential oils.

A range of lessons learned and challenges faced was presented, including the necessity to conduct as many trials as possible; the distillation process must work efficiently; the selection of beneficiaries and the terms of the collaboration are critical; availability of financial and water resources; and securing a market for the product.

The transition from donor dependency, both for implementing agencies and farmers, is a challenging process and requires a major mindset change. This begs courage, time and patience. Sustainability demands a business focus, with social responsibility.



General frequently asked questions

MR OBED NELOVHOLWE

Food security versus essential and vegetable oils: Essential oil crops can proliferate in marginal lands, in settlements or in urban encroachments. Wherever they occur, they are considered weeds because they may be invasive plants. But the land may be rendered useless due to its proximity to human settlements or the soil not being suitable for conventional crops.

Drought, pest and disease resistant: Essential oil-bearing indigenous plants have developed and adapted to the environment, and developed variables that make them unpalatable to pests or enable them to grow quicker than other plants. They have developed resistance to drought and provide higher yields in order to survive the environmental vagaries. An example is the kalahari melon (seed oil), that starts to produce in about 25 days and whose profuse fruit number more than sweet melons', and yields more seeds per hectare (4 tons, with 26.7% oil content).

Sometimes indigenous essentials plants bear more nutritional values than conventional crops: Marula fruit contain more vitamins than oranges by a huge percentage, yet they grow on dry and marginal lands along roads and farm fences. The essential oil of marula nuts bears more essences beneficial for skin nourishment than many others.

SESSION 5: MARKETING AND EXPORTS - PRINCE OR PAUPER?

Moderator: Dr Jayne De Vos



> Proudly SA formulations

DR AUBREY PARSONS

The emphasis here is to clearly direct the importance of essential oils in the skincare, pharmaceutical and food industries. There will always be a need for aromatherapy applications, but the major usage can be directed at some of the following products.

The entire citrus range is critical to the soft drink industry, whilst the identical natural range finds excellent applications in the fragrance industry, i.e. one cannot produce a fresh, stimulating perfume without citrus.

Winter brings 'flu about, but fortunately, we have access to the superb essential oils of menthol, peppermint and spearmint, and exports should not be overlooked, e.g. eucalyptus oil.

Who would ever have thought that we can produce a highly acceptable ginger beer-ale beverage without the natural ginger oleoresins and respective oils? This plant has a bright future in the health industry, mainly due to its successful medical function.

As the word natural has arrived and is here to stay, the word synthetic and/or nature-identical is removed rapidly and this is a blessing for our essential oil industry and a saviour for the cosmetic, food and pharmaceutical industries.



The International
Federation of Essential
Oils and Aroma
Trades (IFEAT) and
the importance of
sustainability in
South Africa

MS CATHERINE CROWLEY

An industry that is more connected will build the industry globally. The International Fragrance Association has compiled hard data on socioeconomic benefits, while IFEAT reports on benefits lost to countries by increased regulatory pressure. IFEAT is compiling a global database of all naturals and will link it with its socio-economic reports. Impact data on production can then be reported across Africa.

Sustainability is a topic with a broad reach. It can be deconstructed into 22 practical areas that are important for both larger and smaller companies. Originally driven by consumer demand, the need for demonstrable sustainability practices is now present in all stages of the supply chain.

Recommendations included: Practical integrity (doing what you say you are going to do, and doing the right thing); sharing best practices, proprietary information and common issues; consideration of carbon footprint and natural resources; and maximising the social impact.





Lessons learned from exporting

MR FLIP MINNAAR

Drivers that stimulate diversification from traditional commercial farm crops are competition from overseas competitors with global trade liberalisation; water availability; traditional crops' cost; a weak rand; and hard currency can be earned through exports.

The most important elements related to successful exporting are quality, quantity and price, and consistency in respect of all three. Quality is determined by plant material (variety, contamination with weeds, harvesting time) and distillation (temperature, pressure and length of time of distilling). Drying and filtering, packaging and storage are also important. Quantity can be disrupted by newcomers and bad quality oils. Oil prices are influenced by international volumes, but it should be kept as consistent as possible, and quotes should be issued in US dollars or euros.

Agencies such as SIPPO and CBI can play a major role to support aspiring exporters. Documentation must be 100%, including the export marketing plan; company overview; product, technical and safety data sheets; certificates of analysis; marketing material for trade shows; social responsibility; and access to benefit-sharing compliance.

The problems most commonly experienced are analyses, comparing prices with international companies', sending samples and sending the actual essential oil consignments.



Demystifying market requirements

MR GRANT McMURRAY

Destination markets' regulations have to be complied with, but enforcement may vary between different territories. Regulations generally focus on product safety, product efficacy and label information. Market requirements differ for ingredients and retail products, e.g. the EU's REACH and organic regulations and the USA's FDA and National Organic Program. Quality standards are increasingly relevant, as are organic certification, food-grade, GMP and HACCP.

A product information file (PIF) has to be compiled for each product with the product's test results, material safety data sheets, certificates of analysis for each ingredient, label artwork and copy. Registration requirements vary for different products, e.g. the EU requires all cosmetic products to be notified on the Cosmetic Products Notification Portal (CPNP) and that a "responsible person" be appointed to submit the PIFs onto the CPNP.

Retail chains' requirements must be fulfilled. They may require documentary evidence on fair labour practices, adherence to environmental laws and regulations, GMP and independent certification of products labelled as organic or fair trade. Consumers consider the social, environmental, ecological and political impact of their buying decisions.

Relationships need to be built by attending trade shows, personal meetings, quick response times, accurate information, certificates matching the stock and goods delivered according to expectations.

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SESSION 6: LESSONS LEARNED - VOLUME IS VOICE!

Moderator: Mr Will Coetsee



Lessons learned from the citrus industry

MR BRETT BUSSCHAU

Citrus is the most important tree fruit crop in the world, being household items in >100 countries. It is sold fresh or as juice and oil. Citrus oils are extracted, without heat, from the peels by centrifugation, producing cold-pressed oil. Quality is key for both the flavour and fragrance industry. Gas chromatography-mass spectrometry (GC-MS) is crucial for maintaining the quality standards needed for the industry.

The main challenges are production's dependence on climatic conditions that can only be partially manipulated by man through irrigation; pesticide residue due to the focus on the fresh fruit; saturation of traditional export markets; relatively high input and capital costs; volatile fruit prices; and the lack of industry control on efficiency and productivity in the supply chain between the farm gate and pack house door.

Threats include cross-contamination at processing plants; increased competition; oversupply of oil; water's availability and cost; and crop diseases.

Opportunities are market access initiatives to Japan, India, Indonesia and China; increasing demand due to consumers' demand for buying more natural flavours; and potential for increased local market consumption.

The industry should focus on the following: Quality is key; optimise processes; add value to the product; communicate with suppliers and customers; and diversify crops.



Lessons learned from the eucalyptus industry

MR JARRETT PECH

Eucalyptus oil is anti-microbial, providing antifungal, antibacterial and antiviral benefits. It is used in many different medicinal products and is a popular choice in vapour rubs, rash creams, inhalers, ointments, dental hygiene and products to support the respiratory system and soothe physical discomforts.

The industry is extremely competitive and new growers need to be aware of the following challenges:

Chinese production: With China producing most of the world's eucalyptus oil supply and having an abundance of leaf material to work with, market prices are not readily predictable and can vary significantly from year to year.

Quality requirements: All essential oils have very specific analytical requirements that need to be met. With eucalyptus oil, getting the odour profile just right is often the hardest part, requiring the steam-distilled oil to be rectified by fractional distillation.

Water use licenses: To plant any form of eucalyptus tree (even if used for oil production and not timber), a planting permit or water use licence for afforestation is required.

Labour issues: South Africa's labour laws make a labour-intensive industry like eucalyptus sometimes difficult and expensive to manage.

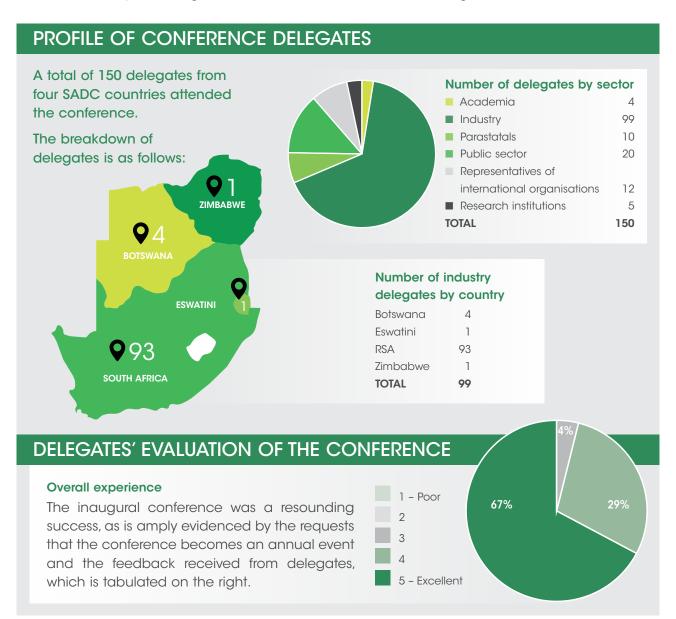
Despite the challenges, one remains positive, as demand for eucalyptus oil is expected to increase due to its proven medicinal properties.





Delegates' profile and evaluation of the conference

The popularity of the conference, its topics and speakers were confirmed by the fact that attendance at the conference was totally oversubscribed. In fact, the number of applications exceeded the number of seats available by a fair margin, even after the sponsors agreed twice to increase the number of registrations allowed.





The speakers, panellists and moderators

THE SPEAKERS



> Prof K Hüsnü Can Baser

Professor of Pharmacognosy: Near East University, N. Cyprus

Prof Baser served as the Founding Director of the Anadolu University Medicinal and Aromatic Plant and Drug Research Centre (TBAM). He is the vice president of the International Council for Medicinal and Aromatic Plants (ICMAP). He represented Turkey at the European Pharmacopoeia Commission for over 10 years. He was a board member of the International Society for Medicinal Plant and Natural Product Research (GA). He organised the 2019 World Congress on Medicinal and Aromatic Plants for Human and Animal Welfare (WOCMAPVI).



Mr Brett Busschau

Group Technical & Commercial Manager, Clive Teubes Group

Since 1995, Mr Busschau works at the Clive Teubes Group with citrus oils and essential oils. The Group was established in 1983 and currently produces, distributes and exports superior quality products to the local and international markets. They provide citrus, essential, indigenous and exotic carrier oils, flavours and fragrances, special extracts and aromatic chemicals. They are seen as one of the largest distributors of citrus oils and essential oils out of Africa. They operate well-equipped laboratories according to strict internationally-accepted quality control standards, and the company is ISO22000 certified.



Ms Catherine Crowley

Owner: Eucaforest

Mrs Crowley is the owner of a eucalyptus & essential oil farming & production operation since 1963. In addition to her farms based in Mpumalanga, Eucaforest has expanded into working with smaller growers for new essential oil crops. She stepped onto the board of IFEAT in 2016. Mrs Crowley feels that it is a particularly critical time to keep raising awareness of the positive impact our industry has on developing countries, especially in light of the increased regulatory pressure. She continues to champion the role of business as a key tool to uplift disadvantaged communities.





Ms Nnana Makhubu

Director: BNX Essential Oils

Ms Makhubu is a skills development facilitator and assessor registered with the AgriSETA. She has certificates in ornamental horticulture level 1, plant production and introduction to agribusiness management. She is an experienced nursery keeper with 18 years' experience, and obtained extensive knowledge in the distillation of essential oil crops when working for SEDA for seven years. She assists various farmers with cultivation in the KwaZulu-Natal, Limpopo, Mpumalanga and North West Provinces. She has accumulated 26 years of experience in the industry and in the transfer of skills. Ms Makhubu is a board member of SAEOPA.



Mr Grant McMurray

Director: SOil

Mr McMurray is the founder of SOiL, which has been growing and distilling aromatic plants in KwaZulu-Natal since 2001. He started the enterprise in answer to the need for all things organic and has extensive knowledge of the essential oil supply chain. The company has an eco-ethical range certified by Ecocert and was the first in South Africa to sell a complete range of 100% certified organic essential oils. They are currently also doing blends, body care products and value-adding with essential oils. They farm, process, market and export their own products.



Mr Flip Minnaar
Director: Highland Essential Oils

Highland Essential Oils was established in 1992. Mr Minnaar is a highly successful farmer in the Free State and Zambia, producing rose oil, iris, eucalyptus, chamomile, tagetes and yarrow. His company has a private laboratory on-site, is a successful exporter, and is involved in value-adding. He has been acknowledged by industry for his technology in distillation and cold-pressing extraction methods. He is a proven SA champion and entrepreneur who received many awards for his outstanding work, and is arguably the only individual in the country who produces absolutes and concretes from rose oil.



The speakers, panellists and moderators

THE SPEAKERS



Dr Mathilda Mostert
Chief Executive Officer: Precision Oil Laboratories

Dr Mostert obtained a PhD as a food scientist expert on the analysis of fat and oil stability and composition. She is acknowledged by the SA Association for Food Science and Technology (SAAFoST) as an expert on consultation for and analysis of fats and oils and is a member of the American Oil Chemists' Society and the SA Council for Natural Scientific Professions. Dr Mostert is CEO of Precision Oil Laboratories, Limpopo Province, specialising in seed oil analysis. The laboratory is SANAS accredited and takes part in the proficiency schemes of the American Oil Chemists' Society.



Mr Obed Nelovholwe

Mr Nelovholwe is an experienced distiller and seed oil extractor, with experience in refining and downstream processing with the Precious Metals Group. He is employed by NOVA, working in all provinces in natural product processing. He has his own distillation unit and seed oil press, specialising in the processing of essential and seed oils. He has extensive knowledge of traditional uses and locality of plants all over Southern Africa. He is an expert on indigenous and classic plants of industrial value. He is a director of SAEOPA since 2005 and is the Association's current Chairperson.



Dr Aubrey Parsons
President: SA Association for Food Science and Technology (SAAFoST)

Dr Parsons has been involved with SAEOPA since 2000. He is a patron and honorary member of SAEOPA. Dr Parsons is a champion in the skincare and beauty formulation industry. He has two doctorates in chemistry and has been involved in skincare and cosmetics for the past 45 years. He has received many awards and is a fellow of the UK Flavour Association. He still lectures at the Universities of Johannesburg and Wits, and he is an invited lecturer to India, China, UK, Malaysia, Singapore and Indonesia.





Mr Jarrett Pech Chief Executive Officer: Busby Oils

Mr Pech is the second-generation owner of Busby Oils, which has been one of the leading global producers of pharmaceutical-grade eucalyptus oil since 1972, supplying various international flavour and fragrance houses. The company is situated in Richmond, KwaZulu-Natal, and also manufactures a range of personal care products formulated for growing consumer trends towards natural products. They supply their range of products to Africa, Europe and the USA, and have on two occasions won the State President's Merit Award for Export Achievement.



Mr Denzil Phillips

Director: Denzil Phillips International

Mr Phillips' company, based in Surrey, United Kingdom, is dedicated to the development of natural products worldwide, embodied in their quoting Thomas Jefferson: "The greatest service which can be rendered any country is to add a useful plant to its culture." Mr Phillips is an acclaimed author who wrote many articles published in perfumery and fragrance magazines, and was actively involved in natural product development in West Africa. Mr Philips will be attending the 2019 World Congress on Medicinal and Aromatic Plants (WOCMAP) in Northern Cyprus where he will discuss frankincense and myrrh.



Mr Tafara Shuro Executive Manager: Qobo Qobo Essential Oils

Mr Shuro has a passion for people and strongly believes in the need to make a difference in one's community. He has been involved in community development and training for several years. He joined Siyakholwa in June 2010 and since has been involved in projects aimed at alleviating poverty and empowering youth and adults alike to become entrepreneurs and generate income. He is also the business manager for Siyakholwa and lead trainer for Smartstart, a project whose main goal is to provide access to quality early learning for 3 and 4-year olds.



The speakers, panellists and moderators

THE SPEAKERS



Dr Ian Southwell

Adjunct Professor: Plant Science, Southern Cross University, New South Wales, Australia

In addition to research scientist and academic status, Dr Southwell has been the Secretary of the Essential Oil Producers Association of Australia (EOPAA) for ten years. He is the Chairman of the Essential Oil Committee of the Standards Association of Australia and is extensively involved in quality control, chemistry and oil standards. He is a prolific writer who has published over 50 papers on Australian essential oils. He was also involved with UNIDO's Essential Oil projects in both Zimbabwe and India. He has delivered presentations at many international conferences and trade shows.



Ms Karen Swanepoel

Executive Director: Southern African Essential Oil Producers' Association (SAEOPA)

Ms Swanepoel has been involved in many industry studies in the field of essential oils since 2000. She has presented papers at the Indigenous Plant Use Forum (IPUF) since 2000 and on international level at WOCMAP, ISEO, ASNAPP, Green Gold, SAAB, African Corp Science, Agricultural and Training World Conference, CHEMRAWN, Industrial crops and Rural Enterprises. She has also contributed to publications for the Department of Trade and Industry as well as the Department of Agriculture, Forestry and Fisheries. She is currently a consultant for UNIDO in the GQSP-SA project.



Ms Petra Thiessen-Terblanche

Site Manager: Hi Hanyile Medicinal and Essential Oil Products

Ms Thiessen-Terblanche has been working with rural people in deep rural communities in the Northern Limpopo Province for the past 40 years. Her special interest is the ways and means by which traditional people utilise their environment for their survival, their knowledge being formidable. Her main contributions are in the field of various museum exhibitions, articles and promoting indigenous knowledge systems, thereby preserving this heritage of the local people. All along she gained much knowledge about indigenous plants and their uses from these very traditional people, who are specialists in their fields.





Dr Sarah Venter
Owner: EcoProducts

Dr Venter completed her PhD on the ecology and sustainable utilisation of baobab with the University of the Witwatersrand. She published many papers on baobab ecology and worked for the Department of Agriculture, Forestry and Fisheries as a forestry scientist. She founded the Baobab Foundation and is one of the founding members of the African Baobab Alliance. EcoProducts produces baobab oil and powder, has organic and FSSC 2000 certification, and complies with national bio-prospecting legislation. She has a unique way of working successfully with communities due to her ability to establish and maintain these important relationships.





The speakers, panellists and moderators

ADDITIONAL PANELLISTS



➤ Mr Pietersarel De Bruyn
Managing Director, Herbs-Aplenty

Mr De Bruyn qualified as an agricultural economist at the University of Stellenbosch, followed by post-graduate degrees. He has been involved with organic botanicals, essential oils and related industries since 1994. He leads Herbs-Aplenty, Cape Essential Oil Services, Goedgegewe Farm and Steampunk Distilled Products. His distinctive competence is the multi-faceted interaction from the botanical and horticultural aspects of selection and propagation of plants; technical and operational skills for distillation/drying; cultivation; farming skills of growing; sustainability and profitability of projects; and sharing and monitoring of skills and expertise. He is passionate about natural and organic production.



Mr Adolf Joubert Chief Executive Officer, Afrinatural

With a history as an entrepreneur, Mr Joubert started Afrinatural more than 10 years ago and developed it into a sought-after source of African botanical solutions to international wholesalers, retailers, product developers and content suppliers in the phytomedicine, pharmaceutical, nutraceutical, cosmetic, cosmeceutical, personal care and health foods industries. Currently, more than 70% of Afrinatural's turnover is to international markets all over the globe - 50% outside Africa, EU & USA. More than 50% of its products are sourced from Africa. For this Afrinatural and Mr Joubert have received recognition of numerous local export awards over many years.



Ms Preshanthie Naicker-Manick Deputy Director: Department of Environment, Forestry and Fisheries

Mrs Naicker-Manick has been employed in her current position for approximately 5 years and has experience in a wide variety of water and environmental projects. She was one of the lead pioneers for the National Biodiversity Economy Strategy and is now responsible for implementing Operation Phakisa-Bioprospecting/Biotrade economy outcomes, namely BioPANZA. She founded the provincial chapter of a national NPO, the South African Young Water Professionals Programme. She received various accolades during her career, such as being awarded membership to the Golden Key International Honour Society, Green Chemistry presenter award from the Royal Society of Chemistry, and the GreenMatter WWF Nedbank Green Trust Leadership Fellowship Award.





Ms Lactitia Tshitwamulomoni

Deputy Director, Department of Environment, Forestry and Fisheries

Ms Tshitwamulomoni has fifteen years' experience in bioprospecting, access and benefit-sharing. She coordinates implementation of Chapter 6 of the National Environmental Management: Biodiversity Act; the Bioprospecting, Access and Benefit Sharing Regulations; and is a National Focal Point for the Nagoya Protocol on Access and Benefit Sharing under the Convention on Biological Diversity. Her work involves engagement with stakeholders at international, regional, sub-regional, national, provincial and local levels for awareness-raising and capacity building on access to indigenous biological resources and associated traditional knowledge for its utilisation in order to achieve fair and equitable sharing of benefits amongst the relevant stakeholders.





The speakers, panellists and moderators

THE MODERATORS



> Mr Will Coetsee

Managing Director: Botanica Natural Products

Mr Coetsee is a passionate entrepreneur focused on social entrepreneurship which combines ecology, indigenous culture and business principles to create products and services in developing countries. Having graduated with a BSc degree in biodiversity and ecology in 2003, he started working for his family business, the Mogalakwena Group in rural Limpopo. In 2010 he graduated with an MBA (cum laude) in social entrepreneurship from the University of Stellenbosch Business School. Since 2009, he has been Managing Director of Botanica Natural Products, which produces plant extracts and oils for international markets.



> Dr Jayne De Vos

Director: Chemistry and Materials Metrology, National Metrology Institute of South Africa (NMISA)

Dr De Vos joined NMISA in 2002 and has since supported South Africa's need for a sustainable quality infrastructure through the activities of the Institute and the regional metrology organisation, AFRIMETS. She obtained a doctorate in chemistry from the University of Pretoria. Her field of study started in forensic chemistry, deviated towards environmental analytical chemistry, and has now diverged towards food safety, drug analysis and natural indigenous products. In support of measurement traceability and the quality of testing, NMISA is partnering with AOAC International's Sub-Saharan Africa Section to promote food safety, method alignment, public health and trade.



Dr Elsie Meintjies

Chief Technical Advisor, United Nations Industrial Development Organization (UNIDO)

Dr Meintjies holds a PhD degree in chemistry and BCom in information systems and business management. Since 2011 she has been facilitating technical guidance support projects for diverse projects ranging from regional trade capacity building, sanitary and phytosanitary measures to multi-party cooperation agreements. She has held senior and executive positions in South Africa and Botswana. She was the Chief Technical Advisor for UNIDO projects in SADC and ECOWAS and is currently working on strengthening the quality of essential and vegetable oils exports from South Africa.





Ms Sinah Mosehla

Director: Cosmetics, Department of Trade and Industry (the dti)

Ms Mosehla led the development of SA's Natural Ingredients and Products Export Development Strategy in partnership with CBI; the development and implementation of the Cosmetics Sector Strategy; and was instrumental in the establishment of the Cosmetics Export Council of South Africa. Her responsibilities include providing technical inputs into the Industrial Policy Action Plan and legislation that regulate the cosmetics industry. Her involvement with UNIDO includes establishing the SABS's Essential Oils Technical Committee for developing SA standards for vegetable and essential oils. She currently chairs the Finance Cluster (BIOPANZA) that is responsible for developing the Indigenous Natural Products Fund of SA.



Mr Christo Van der Rheede

Deputy Executive Officer, Agri SA

Mr Van der Rheede holds a Masters Degree in Public Policy Analysis and Leadership. In 2005, he was appointed as the CEO of the AHI, a national platform for small business. He focused on small business development, policy issues that have an impact on small businesses, and mobilised more than 140 small business chambers throughout the country. He was appointed as the Deputy Executive Director of Agri SA in 2015, where he is responsible for implementing a socio-economic and transformation strategy for the agricultural sector. His passion is to help ensure an inclusive, technologically advanced and competitive agricultural sector.





Way forward

Delegates at the 2019 conference were unanimous in requesting that the event should be hosted every year, 100% of them having indicated on the conference evaluation form that they would attend and recommend to someone else to attend the next one.

The top 5 recommendations for topics for next conference are:

- i. Quality and testing of oils;
- ii. Legislation, regulations, exports and market compliance;
- iii. Market information;
- iv. Cultivation; and
- v. Processing.

The top 3 "one message I'll take home":

- i. The importance of quality and applicable documentation;
- ii. Awareness of the potential of and opportunities in the industry;
- iii. The importance of standards meeting local and international standards.

Based on delegates' feedback, the conference was a bench-mark event in all respects, and every endeavour should be made to not only repeat it, but to meet the high standard set in 2019.







The conference sponsors



The GQSP-SA Project

The GQSP-SA Project is funded by SECO and implemented by UNIDO. The objective of the project is to strengthen the quality and standards compliance capacity to facilitate market access for Small and Medium Size

Enterprises (SMEs) in the essential and vegetable oils value chain destined for food, health and cosmetic markets.



Federal Department of Economic Affairs, Education and Research EAER State Secretariat for Economic Affairs SECO

SECO

SECO's Economic Cooperation and Development division is responsible for the planning and implementation of economic cooperation and development activities with middle income developing countries, countries of Eastern Europe as well as new Member State of EU. It coordinates Switzerland's relations with the World Bank

Group, the regional development banks and economic organizations of United Nations. SECO is part of the Federal Department of Economic Affairs, Education and Research (EAER).



The Department of Trade and Industry (the dti)

The Department of Trade and Industry of South Africa, is responsible for the transformation of the economy by promoting industrial development, investment, competitiveness and employment creation; building a mutually beneficial regional

and global relations to advance South Africa's trade, industrial policy and economic development objectives; facilitation of a broad-based economic participation through targeted interventions to achieve more inclusive growth; creation of a fair regulatory environment that enables investment, trade and enterprise development in an equitable and socially responsible manner; and to promote a professional, ethical, dynamic, competitive and customer-focused working environment that ensures effective and efficient service delivery.



SAEOPA

The Southern African Essential Oil Producers' Association (SAEOPA) was established as a non-profit organisation to represent the interests of the essential and vegetable oils industry and to foster the growth of the regional

natural ingredients sector by promoting the production, processing and export of these products. It represents all active role players in the value chain, including producers, processors, distributors and ancillary support services. The organisation aims to make a tangible and lasting contribution to social and economic development, with a bias toward women, the youth and rural areas.



Acronyms

DARDLR	Department of Agriculture, Rural Development and Land Reform
DEFF ——————	Department of Environment, Forestry and Fisheries
DSI ————————————————————————————————————	Department of Science and Innovation
EU	European Union
FDA	Food and Drug Administration, USA
GMP	Good Manufacturing Practice
GQSP	Global Quality and Standards Programme
GQSP-SA	Global Quality and Standards Project – South Africa
SAEOPA	Southern African Essential Oil Producers' Association
SECO	Swiss State Secretariat for Economic Affairs
SME	Small and Medium Enterprises
the dti	Department of Trade and Industry
UNIDO	United Nations Industrial Development Organization
	pilocar.



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