BP1, Lippia javanica

Benefit sharing through scientific innovation and traditional knowledge

Vinesh Maharaj, PhD

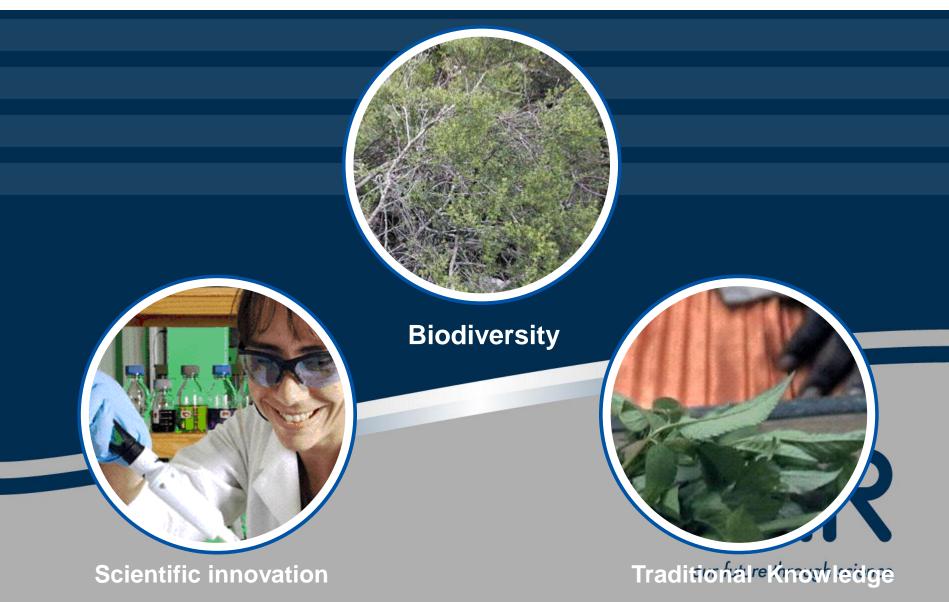
Technology Manager

CSIR, Biosciences



Adding value to SA resources



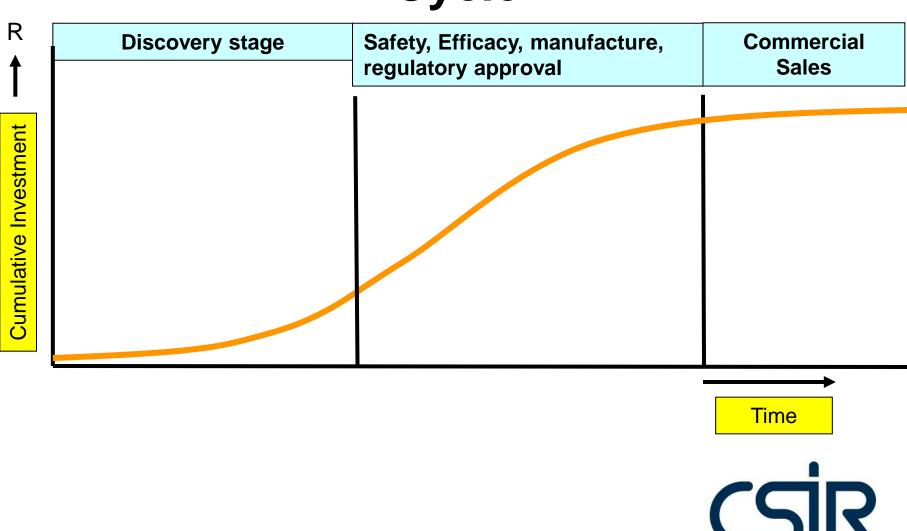


South African plants of commercial interest

Agathosma betulina, Aloe ferox, Artemisia afra, Aspalathus linearis, Cyclopia genistoides, Harpagophytum procumbens, Hoodia gordonii, Hypoxis hemerocallidea, Lippia javanica, Mesembryanthemum tortuosum, Pelargonium sidoides, Siphonochilus aethiopicus, Sutherlandia frutescens, Warburgia salutaris and Xysmalobium undulatum.



Typical Product Development Cycle



our future through science

BP1 (*Lippia javanica*): mosquito repellent

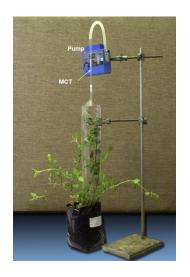


History

- Based on collaboration with THC late nineties
- Lippia javanica used by THPs for malaria and to repel mosquitoes
- Also known as musukudu, mumara, inziinziniba, umsuzwane, fever tree
- Placed around dwellings, burnt in fires keep mosquitoes away
- Use pointed to a product based on the volatile components of the plant



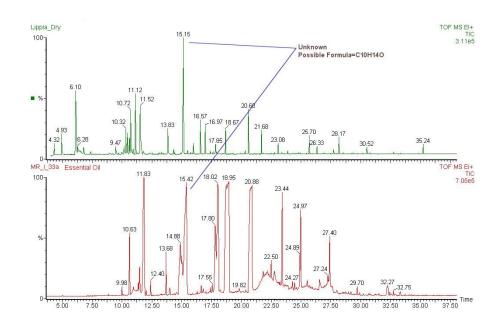
Research and Innovation







Production of an essential oil – steam distillation





Quality Control - GC

Formulation studies

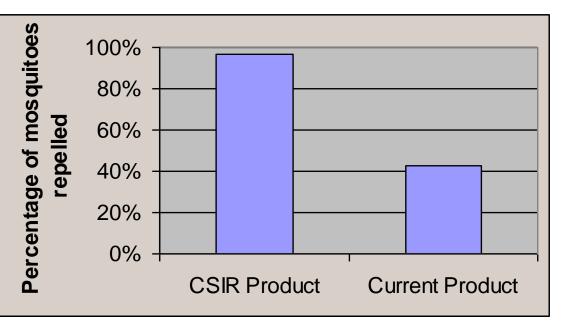




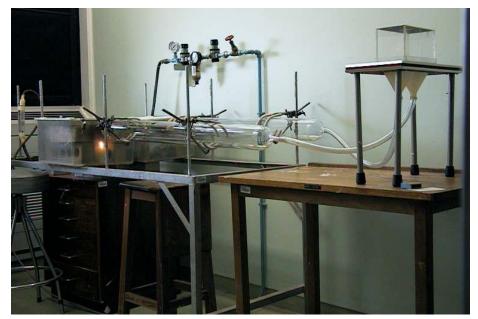




Mosquito repellency testing



SABS comparison of candles containing BP1 vs. citronella oil





Legal Framework

Signing of MOA (1999)

- Prior and informed consent
- Confidentiality of IK information
- Patenting and publication guidelines
- Provides for future agreements for commercialization





Signing of BSA on 2003

- Monetary benefits from milestones and royalties of commercialised product
- Creation of a trust to promote Traditional healing practices

w.csir.co.za

Legal Framework



- African National Healers Trust registered in 2007. Guiding principles:
 - Governed by Trust Property Control
 Act, nr 57 of 1988 and the Trust
 Deed
 - THC members are trustees
 - Main objective is to promote traditional healing practice
 - Raise funds, HIV prevention, SME creation
 - Training programmes in health, schools, bursary scheme, clinics for Traditional Healers
 - Networking and building relationships
 - Non for profit

Community based Agro-processing, Limpopo Province

- Technology transfer to community farmers through ECD, CSIR
- Funded by DST Sustainable Livelihoods
- 30 Ha scale







our future through science

Plant harvesting-Giyani, Limpopo Province



Plant processing-Giyani, Limpopo Province









© CSIR 2006

Essential oil distillation factory on Community farm-Giyani, Limpopo Province







Community owned mosquito repellent candle making factory



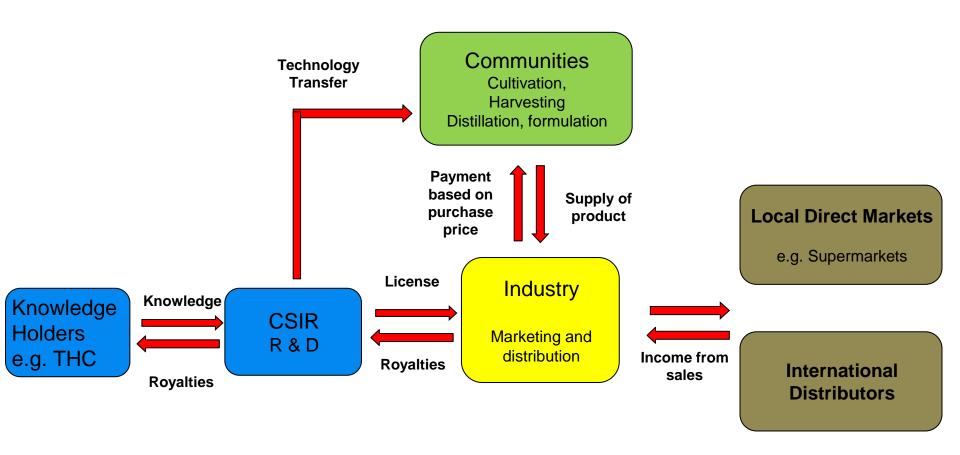


Commercialization

- SA patent on use was filed
- Dossier on the product was completed and submitted for registration
- Registered for use under Act 36, Department of Agriculture as a mosquito repellent
- Currently traded through collaborators through non exclusive licenses.
- First of number non exclusive licenses, Zollhaus Int Pty
 - SPAR
 - Kruger Park
 - Massmart
 - >100 shops
 - Targeting 200 outlets in next year



Value Chain





In memory of TDr's Solomon Mahlaba, Andries Mathaba and Simon Mahlaba







