

# SHAPING THE FUTURE FOR VERTICAL FARMING & NEW FOOD SYSTEMS

13<sup>TH</sup>, 14<sup>TH</sup> & 15<sup>TH</sup> SEPTEMBER 2023 | PROTEA HOTEL | WESTERN CAPE



The concept of vertical farming, Controlled Environment Agriculture (CEA) and New Food Systems has already become an issue of strategic global importance and is producing a vibrant developing market, with innovative start-ups and major corporations driving the development of vertical farming in cosmopolitan areas. The aim of New Food Systems is to maximize and secure yields - without neglecting ecological and social factors.

It's high time - not just to accord this topic the societal relevance it deserves - but to provide a forum for information that's focused exclusively on indoor farming. This is where VertiFarm comes in, making its *début* as the first and only dedicated conference and Tour on Vertical Farming & New Food Systems.

## HOW NEXT-GEN AGRI-TECHNIQUES COULD DELIVER MULTI-FOLD PRODUCTIVITY GAINS AND COMBAT HUNGER IN AFRICA

OVER the ages, advances were recorded through mechanisation, irrigation, and fertilisers, and all revolved around improving land and soil quality. However, the latest advances of today are bringing the centrality of land itself in question. Yes, we are talking about farming practices and methods that do not use land at all. We have come across hydroponics, where plants are grown in inert medium like rocks or coir and are fed with nutrient rich water is probably the most well researched method. And there is aquaponics, where fish are reared in water along with plants.

However, the most interesting among them is Aeroponics - growing of plants in air, with the roots not touching the soil but getting the nutrients.

Global warming and increasing population negatively affect our basic needs for food and agriculture. Food insecurity, logistics, and various economic reasons also play an important role in the expansion of urban farms. Considering the area covered by traditional farming methods, it is quite impossible to include it in the urban area. Moreover, more importantly, the climate change we are facing has made a large proportion of the land unproductive. Thus, vertical farming, which emerged as a result of the search for alternative farming methods at this point where the sustainability of traditional agricultural soil is in danger, is still developing to reach optimum operation.

Vertical farming systems enable agriculture to be implemented in cities, allowing more compact production to increase both food safety and accessibility. It makes soilless agriculture possible with different technological systems developed. These stacked systems are adaptable indoors and outdoors, from green towers to greenhouses. Vertical farms are beneficial systems for urban areas.

The 2023 event is the most substantial event of the year dedicated to featuring two days of conference sessions, networking with key industry figures, vertical farm tours, case studies and presentations.

The conference highlights key issues spanning around creating sustainable agriculture and includes:

- Developing Food Economies through Township Farming and Tackling Unemployment through Youth and SMME development
- The future of Vertical Farming
- Discover the latest developments in Urban and Township Farming
- Unlocking the Potential of Township farming in Agriculture
- Township Entrepreneurs Fighting hunger in communities.
- Vertical Farming's Role in creating a Water Secure Future
- Africa's Green Economy: Climate Smart and New technologies for Urban Agriculture Initiatives
- Creating Agri-preneurs: (How do we drive Entrepreneurship and Innovation in the Agri Food System)
- Exclusive sessions on Cultivating Sustainable Cannabis in South Africa
- Onsite Farm Tour- Showcasing the Latest technology and practices used for Vertical Farming

*Turn Africa's Cities into Vertical Farms and Explore the latest in farming methods by joining our panel of experts unfolding the Current and giving rise to the Future trends of Vertical Farming in Africa.*

## WHO SHOULD ATTEND?

**Farmers involved in:**

- Vertical Farming | Aquaponics | Hydroponics | Aeroponics Hemp/Cannabis Farming
- Emerging Farmers, Commercial Farmers, Youth Agriculturists, Small Holder farmers
- Climatologists
- Environmental Scientist, Greenhouse Technologists
- Extension Officers
- Agricultural Field Researchers and Consultants
- Plant Scientist and Horticulturist
- University Professors/Heads of Agricultural and Agronomy Departments
- FET Colleges
- Growers | Urban planners | Architects | Technology suppliers (corporate, start-up) | System integrators
- Governmental bodies (Local, Regional, National) | Project developers | Finance / Consulting | Food Logistics | anyone interested in vertical farming.

# CONFERENCE AGENDA

## 13<sup>TH</sup> SEPTEMBER 2023 (DAY 1)

08:00-08:30	Registrations
08:30	Opening Address: <b>Vertical Farming in boosting Urban Sustainability</b> <b>Presenter:</b> Roger Tuckeldoe <i>Director: Smallholder Development at National Dept. of Agriculture, Forestry and Fisheries</i>
09:00-09:45	<b>Farming Up! Huge Potential for Vertical Greenhouse Farming in SA</b> <b>Presenter:</b> Richard Lomax <i>Vertical Farm Consult FutureAgri</i>
09:45-10:30	<b>Driving the youth -Aeroponics: The vision to train and accredit micro farmers and SMME -Entrepreneurs on Aeroponics Vertical Farming</b> <b>Presenter:</b> Tony Bryant <i>Owner Impilo Ponics</i>
10:30-10:45	<b>NETWORKING OVER TEA/COFFEE</b>
10:45-11:30	<b>Sustainable Agriculture through Precision Aeroponics</b> <b>Presenter:</b> Robin Koehurst <i>Director Plant Science and Applications AEssenseGrows</i>
11:30-12:15	<b>Controlled Environment Agriculture - from glasshouse to vertical farm</b> <b>Presenter:</b> Paul Sheppard <i>Co-Founder Future Farm SA</i>
12:15 -13:00	<b>Innovating Township Farming</b> <b>Presenter:</b> Dr Phuti Chelepo <i>Innovation Specialist The Innovation Hub</i>
13:00-14:00	<b>LUNCH</b>
14:00-15:00	<b>Pioneering innovative use of Aquaponics /Hydroponics and Sandponics to enable Food Justice for All</b> <b>Presenter:</b> Professor Michael Rudolph <i>Director at Centre for Ecological Intelligence University of Johannesburg (UJ)</i>
15:00-15:45	<b>Growing Cannabis in an Aeroponics System</b> <b>Presenter:</b> Dawie Ras <i>CEO Rascal Seed (Potatoes) and Medicinal Cannabis</i>
15:45 -16:00	<b>NETWORKING OVER TEA/COFFEE</b>
16:00-16:45	<b>Mycelium Movement in Indoor Mushroom Cultivation: The integration of Small-Scale Farmers and the growing of medicinal mushrooms aeroponically.</b> <b>Presenter:</b> Craig Fourie <i>MD Mushroom Guru</i>

## 14<sup>TH</sup> SEPTEMBER 2023 (DAY 2)

08:30-09:15	<b>Improving Agricultural Water Management</b> <b>Presenter:</b> Dr Sylvester Mpandeli <i>Executive Manager Water Research Commission (WRC)</i>
09:15 -10:00	<b>Developing Township Entrepreneurs: Fighting hunger in communities.</b> <b>Presenter:</b> Edith Kennedy <i>University of Stellenbosch SBA programme</i>
10:00-10:45	<b>City Rooftops the Next Frontier for Farming (The Urban Initiative)</b> <b>Presenter:</b> Dr Michael Magondo <i>Idea Sherpa WIBC (Wouldn't It Be Cool)</i>
10:45	<b>NETWORKING OVER TEA/COFFEE</b>
11:00-11:45	<b>Latest Developments and Integrated Pest Management in Greenhouses</b> <b>Presenter:</b> Karel Van Heerden <i>CEO Insectec</i>
11:45-12:30	<b>Greenhouse humidity and Temperature Control</b> <b>Presenter:</b> Deon Van Rooyen <i>Vegtech/Netafim</i>
12:30-13:00	<b>Commercial Basil Production in Greenhouses</b> <b>Presenter:</b> Mr Basil Williams <i>Founder Herbal View</i>
13: 00-14:00	<b>LUNCH</b>
14:00-14:30	<b>Township Vegetable Garden Empowering Women</b> <b>Presenter:</b> Nokwanda Nkqayi <i>Siyazama Farmer</i>
14:30-14:45	<b>Food for the Future Population: Vertical Farming</b> <b>Presenter:</b> Kobus Venter <i>CEO Vertical Farming SA</i>
14:45-15:30	<b>The Influence of Rooftop Agriculture on Urban Food Security in South Africa</b> <b>Presenter:</b> Louis-Gillis Janse van Rensburg <i>Founder Fresh Life Produce</i>
15:30-16:15	<b>Food Gardens and Small-Scale Farmers Key to Food System Transformation</b> <b>Presenter:</b> Dr Naude Malan <i>Senior Lecturer University of Johannesburg</i>
16:15-16:45	<b>(Virtual Session): Growing Potatoes in Air</b> <b>Presenter:</b> Mr Apollinaire Karegeya <i>Entrepreneur/Farmer Rwanda</i>

## 15<sup>TH</sup> SEPTEMBER (DAY 3) - SITE VISIT

09:00	Bus departs for venue
13:00	Lunch
14:00	End of Tour




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**Karel Van Heerden**  
CEO Insectec



**Dr Elsie Cruywagen**  
Plant Pathologist Crop Division Agricultural Research Council (ARC)



**Deon Van Rooyen**  
Vegtech/Netafim



**Nokwanda Nkqayi**  
Siyazama Farmer



**Kobus Venter**  
CEO Vertical Farming SA



**Louis-Gillis Janse van Rensburg**  
Founder Fresh Life Produce



**Dr Naude Malan**  
Senior Lecturer University of Johannesburg



**Dr Babagana Ahmadu**  
Country Director Food and Agriculture Organisation (FAO)



**Mr Apollinaire Karegeya**  
Entrepreneur/Farmer Rwanda

**DON'T MISS OUT!! on joining our Practical Tour to the first Urban Rooftop Farm in Iconic Kenilworth Shopping Centre! 15 SEPTEMBER 2023**

This rooftop farm, which occupies about 192m<sup>2</sup> is equipped with six greenhouse tunnels housing African Growers. Two of the tunnels each covers an area of 20m x 3m, while four smaller ones each measures 6m x 3m. The large tunnels and two of the small ones are used for crop production. The third small tunnel serves as an office and for seedling cultivation, and the fourth is set aside for production trials. "At Fresh Life Produce we are committed to showing the world that there is an alternative to the thinking that we need to have a few large-scale producers to feed households and entire cities. We passionately believe that we all have to become our own "mini" producers that collectively work together to fight the growing food production challenge in a sustainable and natural resource efficient manner. Our growing system that we have developed - and the design of which has been registered - is called the African Grower and our manufacturing and distribution thereof gives us the opportunity to disrupt the fresh food production market."

**OUTCOMES OF THE TOUR:**

- Vertical Farming Practices and Processes
- African Grower. This robust, easy-to-use, modular vertical garden comprises multiple growing pods stacked on top of one another. These towers are suspended, making it pest resilient, and coconut coir is used as a water-efficient growing medium.
- The system promotes increased production, as each African Grower tower, which houses 16 to 24 plants, occupies the same footprint as a person standing. This gives the project the advantage of increased production in a small space using vertical growing practices.

**Tour Facilitator and Presenter: Mr Louis-Gillis Janse van Rensburg** Founder at Fresh Life Produce is a highly motivated, vibrant, well-presented, professional individual with excellent organizational, communication and interpersonal skills. His calm and friendly nature, even when working under pressure, has a positive effect on his colleagues and customers alike. He strives to deliver excellence and to create a fair and ethical work environment amongst his colleagues. Louis-Gillis is a result-oriented individual and his strengths include attention to detail, flexibility, persuasiveness, conflict management and leadership as well as relationship building.

**Participating Companies Includes:**



Organised by

Accreditation



AGRIC Prov/2476/23  
Etqa 694