

Empire Conferencing (events organiser) in collaboration with Stellenbosch University present...

# Carbon Farming, Soil Conservation & New Technologies Conference 2022

1st, 2nd & 3rd JUNE 2022

Protea Hotel, Technopark, Stellenbosch

## OVERVIEW

Farmer experience has demonstrated that regenerative farming practices can restore the soil carbon sponge for better water absorption and purification, nutrient availability, CO<sub>2</sub> sequestration and genuine farmer profitability.

Scientific evidence for this is mounting rapidly. Here in Africa, the application of ecological principles to farming is reversing erosion, flood damage, chemical contamination, and global warming. Our agricultural practices of the last 80 years have exacerbated these serious problems... sustaining that approach into an increasingly uncertain planetary future is naïve.

Agriculture is a major contributor to destructive global warming through habitat destruction. It is also one of the fastest, most powerful ways to reverse it by restoring healthy function to our soils and the hydrologic cycle. Regenerative farming practices do that at low cost.

**Come and listen-** to cutting-edge scientists like Elsenburg Department of Agriculture Western Cape **Dr. Johann Strauss** following many more experts.

**See how experts** are changing dirt to soil and creating a pathway to environmental recovery. Climate change has been called an **existential crisis** – our health, civilization, even existence is threatened.

**It's our responsibility to take the actions needed NOW to restore ecological integrity to SA's agriculture.**

The conference speakers will explain the **Why** and the **How** of profitably regenerating the **Soil Carbon Sponge** through **Healthy Soil Principles** to grow nutrient-dense food and fibre that improves our environment.



## WHO SHOULD ATTEND?

Emerging Farmers | Commercial Farmers | Youth Agriculturists | Conservation Agriculturalists | Environmental Managers | Scientific Manager | Laboratory Managers | Government Departments | Climatologists | Agricultural /Field Researchers and Consultants | Horticulturist | Agriculture finance and funding business units | Professional Scientist | Professors & Heads Agriculture & Agronomy | Soil Scientist/Technicians | Plant Scientist | Ecologists' | Biotechnologists | Fertilizer & Seed Companies | Extension Officers | Conservation Agriculturists | Pasture Scientist | Plant Health Diagnostic Scientist | Agricultural Crop | Research Specialist

## KEY OUTCOMES

Minimize Tillage & Chemical Disturbance | Climate Change, Regenerative/ Conservation Agricultural Practices | Carbon Credits & Saving the Planet | Armour Soils with a Layer of Organic Matter | Cover Crop Farming Methods | Maximize Species Diversity | Soil & Crop Sciences – Agronomy | Keeping a Living Plant in the Soil | What is Carbon farming? | How Does Carbon Capture & Storage Work? | Assessing your Farms Carbon Footprint | Farming for the Future | What is the Soil Solution to Climate Change? | Carbon Sequestration in Soil

# CONFERENCE AGENDA

1st June 2022

**08:30-09:15 Opening Session :  
State of Soil in SA – The Future, the  
Challenges and the Way Forward**

- Future of SA Soil and what this means?
- Soil Health for optimized farming and agriculture sustainability practices
- SA soil erosion crisis

**Presenter: Professor Karin Jacobs , Microbial Ecology, Stellenbosch University**  
*Microbiologist with 15 year's research and teaching experience in Microbial Ecology with a focus on the role of microorganisms in soil environments. Her team has successfully commercialized their research to offer effective soil health testing (www.sporatec.co.za), focusing on biotic factors.*

**09:15-10:00 How Farmers can Earn Extra Income by Practicing Regenerative Agriculture**

**Presenter: Gray Maguire Carbon Project Manager at Climate Neutral Group South Africa**  
*Gray Maguire: AgriCarbon Programme lead at Climate Neutral Group South Africa. Gray is the former Green Economy Coordinator at the Department of Environmental Affairs and development Planning at Western Cape Government where he had a strong focus on the biomass economy. He is the programme lead for South Africa's first registered VM0042- Improved Agricultural Land-use Management methodology carbon credit programme and the co-chair of the Carbon Hub of the Sustainable Landscape Finance Coalition. He holds a post-graduate degree (Cum laude) in Poverty, land and Agrarian Studies from UWC and wrote his masters thesis on private investment in sustainable land-use management at the WITS.*

## 10:00-10:15 TEA/COFFEE BREAK

**10:15-11:00 African Leaders adopt Ecological Organic Agriculture as a Mainstream Approach to Climate Resilience**

**Presenter: Professor Raymond Auerbach, Board Member at Agricultural Research Council**  
*51 years in organic agriculture (as farmer, trainer, researcher, and policy adviser) have given him insights into how food systems work, how they have become dysfunctional, and how to fix them. As an agronomist, his research (see Raymond Auerbach on Research gate) has shown how to close the yield gap between organic and conventional farming systems, how soil biology improves with organic, how water use efficiency is better with organics, and how to control pests and diseases. Latest book (<http://www.cabi.org/bookshop/book/9781786399601>)*

**11:00-11:45 Boost Your Farm's Sustainability with the Right Crop Rotation**

**Presenter: Dr. Johann Strauss Senior Scientist, Sustainable Cropping Systems Research, President South African Society for Plant Production, Vice President SAPSSC**

**11:45-12:30 Smart Farming for Soil Protection -Advanced technology for soil mapping and monitoring**

**Presenter: Dr. George van Zijl Soil Scientist North-West University**  
*Currently he is a lecturer in Soil Science at the North West University, director at Digital Soils Africa, Serves on the board of the South African Soil Surveyors Association and the chair of the Soil Classification Working Group, the custodian of the South African Soil Classification system*

**12:30-13:00 CASE STUDY – “Smart Agriculture for Improving Water Management.”**

**-Monitoring spatial variability with new technologies**  
**Presenter: Dr. Carlos Poblete-Echeverría PhD in agricultural science (University of Talca, Chile)**  
*Senior Lecturer in Advance Viticulture and Coordinator of the research group of Digital Viticulture at South African Grape and Wine Research Institute (SAGWRI)*

## 13:00-14:00 LUNCH



**14:00-15:00 Conservation Agricultural Practices and Organic Waste Management and their Implications for Soil Carbon Storage and Nutrient Cycling.**  
**Presenter: Professor Pardon Muchaonyerwa , Soil Science in the School of Agricultural, Earth and Environmental Sciences (SAEES) at UKZN**  
*One of 13 Soil Scientists to watch globally. (Food Tank)*

**15:00-15:45 SUCCESS STORY: No-Till with Cover Crops has Revolutionized our Farming and now we are Pursuing Regenerative Agriculture.**

**Presenter: Egon Zunckel Founder Zunckel Farms 25 years No-Till including 8 years with cover crops as well. Served on the KZN No-Till Club committee for many years and currently chairman.**

**15:45-16:30 Virtual session Soil Properties and Their Effects on Land Management and Soil Erosion**

**Presenter: Dr. Garry Paterson, Research Team Manager, Soil Science, Agricultural Research Council**  
*Garry is currently a Research Team Manager with the ARC-Institute for Soil, Climate and Water in Pretoria, where he has worked since 1981, obtaining his MSc degree (cum laude) in Soil Science from the University of Pretoria in 1998 and his PhD degree (in soil erosion control using geotextiles) through the same University in 2014. He is the past President of the Soil Science Society of South Africa (SSSSA), as well as the previous Convener of the South African Soil Classification Working Group. He is the author of several research articles, and was the recipient of the SSSSA award for the best soil science article in the SA Journal of Plant and Soil for 2011.*

**16:30-17:00 Bio-integrated Farming, and Soil Farming**

**Presenter: AKIM Riemer/ Green Guerrillas**  
*Bio-integrated farmer, soil nerd. He is an advocator of empathy farming, clear to him is a logical approach for earth, animal, plant and human. His driving force is to highlight the massive hidden potential of harnessing the exponential energy of microbes, his passion is to inspire and empower people with cost effective ecological solutions that works with nature, he calls this “dancing with nature”*

## END OF DAY ONE

2nd June 2022

**09:00- 09:45 Bringing you the Facts of No-Till Soil in Conservation Agriculture**

**Presenter: Richard Findlay Coordinator and Committee Member**

**09:45-10:30 Agriculture Drainage for Excess**

**Water from the Soil to Enhance Crop Production**  
**Presenter: Felix Reinders, Chairperson at Global Framework on Water Scarcity in Agriculture. Former Chairperson of the SA National Committee on Irrigation and Drainage (SANCID)**

*Serves on several International committees and is President Honoraire of the International Commission on Irrigation and Drainage. At present he serves as Chair of the Global Framework on Water scarcity in Agriculture.*

**10:30-11:15 How we can Beat Soil Acidity in NO-Till Farming and the Challenges Farmers are Faced With?**

**Presenter: Guy Thibaud, Soil Scientist - Department of Agriculture and Environmental Affairs in KwaZulu-Natal**  
*He holds an MSc Degree in crop Science from the University of Natal. His research interest are on soil fertility and conservation agriculture*

**11:15-12:30 Drip Irrigation has Saved Water, Enhanced Soil Moisture and Crop Yield in Agriculture**  
**Presenter: Heinrich Müller, Irrigation Designer at Overberg Agri**

*An irrigation specialist with eleven years of hands-on experience in all levels of surveying, designing and advising effective and sustainable irrigation systems*

**12:30-13:00 Managing soil health in “unhealthy” soil**

**-Overview of the practices the farmers in the Western Free State do in order to be sustainable in soils that is not suited for no-till.**  
**Presenter: André Labuschagne, Campaign Lead at Syngenta**

## 13:00-14:00 LUNCH

**14:00-14:45 Positive and Negative Effects of CO2 Build-up and Carbon Foot Printing on Plant Growth, Horticulture and Agriculture**

**Presenter: Prof Gert Venter, International Seawater Greenhouse and Hydroponics Consultant**  
*Prof. Gert Venter is a well-known international consulting engineer on hydroponics and greenhouse technology, as well as W2E (Waste to Energy) projects. He is the author of many handbooks on hydroponics and greenhouse technology. He obtained his Masters [CUM LAUDE] and Doctorate degrees in Agricultural Engineering while being fully employed as lecturer and senior lecturer in the Faculty of Engineering at the University of Pretoria .*

**14:45-15:30 Opportunities for Transformation -Detailing the broad impact of Regenerative Agriculture**

**Presenter: Dr. Lennox Xolile Mtshaki, President, BFASA CPT**  
*An impressive and imposing leader who is comfortable within himself and easily takes control and encourages team work from his peers and subordinates. As a member of the Black Business Forum and having travelled extensively in pursuit of opportunities, his skills have been perfected and used in Xolile's emergence as a leading businessman and entrepreneur*

**15:30-16:15 Environmental and Economic Regeneration, Farming Like the Future Depends On It.**

**Presenter: Andrew Ardington Founder Regenerative Agriculture Association of Southern Africa**

**16:15-17:00 Towards Resilient Soil: The Role of Soil Biodiversity.**

**Presenter: Dr. Charlene Janion-Scheepers, Department of Biological Sciences, University of Cape Town**  
*Environmental and Economic Regeneration, Farming Like the Future Depends On It.*

## END OF DAY TWO

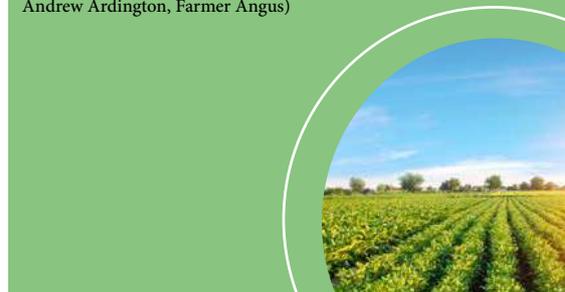
**3rd June 2022 (FIELD TOUR 09:00)**

**FIELD DAY - HANDS ON PRACTICAL INSIGHT AS TO HOW REGENERATIVE FARMS ARE OPERATING WITH NEW CUTTING EDGE TECHNOLOGIES TO REVITALIZE THE SOIL AND WORK TOWARDS SUSTAINABLE AGRICULTURE**  
**Stellenbosch University - Soil Testing and Analysis for Better Crop Sciences**

**9:00-10:30 Hands on practical soil microbiology**

**11:00-13:00 Panel discussions\*: Sustainable agriculture: where do we start?**

*The role of soil testing, Practical implications for regenerative/Sustainable Agriculture (Egon Zunckel, Andrew Ardington, Farmer Angus)*





#### **ABOUT STELLENBOSCH UNIVERSITY:**

Stellenbosch University is a proudly African knowledge hub that serves our country and continent through excellent education, research and innovation. Our vision is to be Africa's leading research-intensive university, globally recognised as excellent, inclusive and innovative, where we advance knowledge in service of society.



#### **GOLD SPONSOR:**

##### **AGRICULTURAL RESEARCH COUNCIL**

The Agricultural Research Council is a premier science institution that conducts research with partners, develops human capital and fosters innovation in support of the agricultural sector. The ARC provides diagnostic, laboratory, analytical, agricultural engineering services, post-harvest technology development, agrochemical evaluation, consultation and advisory services, food processing technology services as well as various surveys and training interventions.



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#### **EXHIBITORS:**

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##### **EUCA TECHNOLOGIES:**

"Here at EUCA Technologies we are dedicated to providing our customers with end-to-end monitoring solutions.

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##### **ORIZON: Plant Change. Grow Carbon. Harvest Value.**

Orizon is your regenerative partner specialising in using the latest technologies and science to help farmers receive maximum carbon credit revenues at the lowest commission in our Carbon Crop Programme.



##### **CAMPBELL SCIENTIFIC**

We are a leading designer and manufacturer of data loggers, data acquisition systems, and measurement and control products used worldwide in a variety of applications related to weather, water, energy, gas flux and turbulence, infrastructure, and soil. We specialize in rugged, low-power systems for long-term, stand-alone monitoring and control. At Campbell Scientific, we are proud to be internationally recognized in the measurement and control industry for producing accurate and dependable instruments.





#### **PlusNet – Setting the standard in the shade net industry in Africa**

PlusNet, a division of Master Plastics (PTY) Ltd, founded in 1995, is a Gauteng based manufacturing company that has been in the shade net business for 22 years. Today PlusNet has a fully integrated state-of-the-art production facility that produces innovated products for the agricultural, commercial and civil industry.

#### **Agricultural Net**

PlusNet has a comprehensive range of agricultural netting from 20% to 60% shade, tailored to improve spectral transmittance and provide the optimal lighting and protection for your crop. Covering orchards with low-percentage agricultural nets can significantly improve the performance of your orchard or vineyard. Part of the responses can be attributed to the filtering of the light spectrum by the nets, and part is due to physical protection and creating a friendlier micro-climate.

#### **CPD PARTNER:**

#### **South African Council for Natural Scientific Professionals (SACNASP)**

SACNASP is the legislated regulatory body for natural science practitioners in South Africa. The natural sciences encompass a wide range of scientific fields covering all of the basic sciences and many of their applied derivatives. SACNASP's mission is to establish, direct, sustain and ensure a high level of professionalism and ethical conscience amongst our scientists.

#### **Media Partner Farmer's Weekly**

**Farmer's Weekly is South Africa's leading source of English news and information about the agriculture and agribusiness sectors, having served the industry for 111 years.**

Trusted by farmers and agribusiness professionals as a source of advice, inspiration and the latest farming news, Farmer's Weekly has evolved into much more than just an agricultural magazine. The brand has grown to also include some of the most widely read and supported online platforms for agricultural news and information in Africa. Our social media platforms, webpage, podcasts and digital and print magazines cater for established commercial, smallholder and emerging farmers, and focus on helping them achieve their objectives.

These multiple platforms serve as a meeting place where Farmer's Weekly and its clients can interact directly with the brand's audience. Farmer's Weekly seeks to inform the wider public about the crucial role that agriculture plays in the African economy, to motivate and inspire farmers and other role players in the agriculture sector, as well as to promote the interests of sustainable food and fibre production.





01st ~ 3rd June 2022  
 Protea Hotel Techno Park- Stellenbosch

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 Delegate substitutions. Substitutions is welcome at any time and do not occur any additional charges. Please notify EMPIRE in writing of any such changes at least 3 days before the date of the event.

- Please note that the speakers and topics were confirmed at the time of publishing however circumstances beyond the control of the organizers may necessitate substitutions, alterations or cancellations of the speakers and/or topics.
- As such, EMPIRE reserves the right to alter or modify the advertised speakers and /or topics if necessary. Any substitutions or alterations will be updated and sent to you as soon as possible
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**PAYMENT BY MEANS OF BANK TRANSFER**

- Please state your full names clearly on the money transfer.
- Please note, bank charges are of your OWN account and this should be stipulated to your bank. Please advise your bank that the charges should be included in your deposit
- A copy of the bank deposit receipt should accompany your registration form and must be posted or faxed

**DELEGATE ATTENDANCE FORM**  
 NOTE: Please provide information as you wish it to appear on your name badge and on the official participant database

Title	Delegate Name & Surname	Position	Email	Phone

**FEE/ DELEGATE** excluding VAT

Yes. [I / We] will attend the event

Early Bird Rate(Before the 6th May 2022):

R4,999

Normal Rate:

R6,999

Per Delegate

By signing and returning this registration form, the authorizing signatory on behalf of the stated company is subject to the following terms and conditions:

- Charge of 50% of the registration fees, plus R700 (+ VAT) Administrative charge will be made for cancellations received in writing at least 14 working days prior to the event.
- or any cancellations received in less than 7 working days before the date of the event, the full fee will be payable and no refunds or credit notes will be
- If a registered delegate does not cancel and fails to attend the summit, this will be treated as cancellation and no refund or credit will be issued.

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**Registration fees above INCLUDES the following entitlements: Entrance to session, registration pack, lunch and refreshment breaks.**

**Registration fees above EXCLUDES the following entitlements: Travel costs and accomodation**

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