

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

Carbon Farming, Soil Conservation & New Technologies Conference 2022

1st, 2nd & 3rd JUNE 2022

Cavalli Wine Estate, Stellenbosch, Western Cape

OVERVIEW

Farmer experience has demonstrated that regenerative farming practices can restore the soil carbon sponge for better water absorption and purification, nutrient availability, CO2 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

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CPD POINTS

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 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.

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

Presenter: Gray Maguire Carbon Project Manager at Climate Neutral Group South Africa
His experience covers a variety of roles in the socio- environmental and economics fields, most of which fall into five categories: Environmental Management Consulting, Project Management, Research, Training and Local Government engagement. Key focus areas have included: Green Economy, Infrastructure finance, Climate, Energy, Food, Water Nexus, Waste, Land-use Management and Resource Efficiency

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 Building the Soil Life Web Through Bio-Mimicry.

Presenter: Peter Searll, CEO Managing Director Transformus - Cape Town
Peter spent the first 25 years of his career as an innovative market researcher in South Africa, evidenced by being a two time industry award winner. He established Transformus in 2017 with an amazing team of Agri experts and lovers of the earth. He has realised how important the soil is as a living treasure that sustains all life on this planet, and is saddened by how badly we look after this. Using the latest regenerative thinking and Ormus (an alchemical extract), Peter is committed to healing our soils while providing nutrient dense food for environmental resilience and healthy people

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
Ecologist and invertebrate physiologist, with a keen interest in soil biodiversity in natural and agro-ecosystems

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



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