



PRECISION AGRICULTURE: BUILDING THE DIGITAL AGRICULTURAL ECOSYSTEM OF THE FUTURE

Eradicating Poverty, Aiming for Zero Hunger And Food Security In a Climate Change Era

VENUE: PROTEA HOTEL TECHNOPARK, STELLENBOSCH

28th & 29th November 2023:

Agriculture's Connected Future- How Technology Can Yield New Growth and is transforming the sector.

30th November 2023:

Villiera Wines & Zetlers Farm: - Tours will provide you with first-hand exposure and connection to the latest developments in Smart Farming Techniques and Sustainable Agriculture solutions.

**Hybrid
Conference**

Accreditation



Organised by



TRENDING TECHNOLOGIES REVOLUTIONISING AGRICULTURE

- **SMART FARMING**-Embracing the digital evolution in South Africa
- **INTEGRATING RENEWABLE ENERGY** Sources in Smart Agriculture Technology (Energy funds and technologies)
- **ASSESSING THE IMPACT OF AGRI TECH ON** Farm Management
- **DRIVING TOWARDS FULL AUTOMATION** New Farming Practices Advancing Digital Crop Nutrition
- **SMART** Cultivation Methodologies
- **FARM With A VIEW:** How Drone Technology Is Taking Agriculture To A New Level
- **LEVERAGING AI & IoT** to Reinvent Agricultural Sector
- **INNOVATE to IRRIGATE** – methods to boost Water Efficiency
- **DISCOVER** Plant Breeding Innovation and Biotechnology (Genome Editing)
- **EMERGING TRENDS** in Climate Smart Innovations and in creating Climate Smart Agri-Food Systems
- **FROM DATA TO ACTION:** Turning Satellite Imagery, Soil Monitoring Sensors and Robotics into Actionable Solutions
- **TARGETING** Digital Solutions to Smallholder Farms
- **FINANCING NATURE:** Changing the Way Farmers Engage with Finance and Insurance
- **DATA** -Soil Insights Soil Insights: Defining and Monitoring Soil Health to Build Sustainable Farming Practices

Who should attend?

Corporate Heads of Agriculture • Commercial farmers and growers • Nutritional Health specialists • Governmental bodies (Local, Regional, and National) • Technology suppliers (corporate, start-up) • Precision farming solution providers • Anyone interested in smart farming • Agricultural industry Technologists • Business Development Managers • Product Development Managers • Agricultural Extension Officers • Autonomous features experts • Harvesting solution providers • Robotic Biotech Developers • Start-up representatives • Agricultural Economists • Heads of Investments • Finance / Consulting • Product developers • Heads of Innovation • Project developers • Research Officers • Logistics suppliers • R&D specialists • Growers • Farmers • Analysts • Digital and Big Data • Agricultural Compliance • Water Management • Industry Analyst • Agriculture Scientist • Digital Farming • Fertilizers • Connected Farming • Precision Farming • Technology • Automation • Policy Advisor • Machinery • Internet of things • Connectivity



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THE global demand for food continues to rise and is projected to increase up to 102% to satisfy the requirements of 9 billion people by 2050. Consequently, agricultural production needs to also increase by 60%–70% to ensure the supply of raw materials for food, feed, and fiber. Ensuring a sustainable future, despite today's sustained and intensified pressure on global resources, means that each actor in the food system needs to develop and enforcing practices that will reduce the use of natural resources where possible, and reuse, recycle, and repurpose them otherwise. Government entities can aid these efforts by implementing policies and strategies for efficient resource management on both national and local levels.

Adopting sustainable farming practices worldwide is contributing to the agroecosystem's efforts to meet the world's current food needs while also ensuring that future generations will be able to meet theirs with the limited resources that they will have. These practices also focus on holistic development that incorporates environmental, social, and economic sustainability which are the three fundamental pillars of sustainable development.

Now the use of advanced technologies in farming is more relevant than ever...

Loadshedding and the current energy crisis (integration of renewable energy technology) are current challenges facing the Farming sector.

As outlined by the FAO and SDG 2 (GOALS) the aim is to eradicate poverty and hunger by 2030. Meeting these demands and combating these challenges can be a task at hand.

Technological advancements and adaptation to the evolving pace to improve the sector in terms of improving yield, efficiency and profitability is gaining momentum over time.

Keeping the sector abreast on the latest technology is key to achieving sustainable agriculture during difficult times.

Over the next year, there should be promising innovations when it comes to precision agriculture. new companies and startups are being formed on a daily basis, many of which focus on developing climate-friendly and intelligent solutions that help drive sustainability in the industry. Technological advancements are today integral to attaining sustainability goals in agriculture.

Satellite and GPS technologies, sensors, smart irrigation, drones, and automation, to list a few, provide the means for precision agriculture, which further aids in effective resource utilization. On the one hand, they reduce the use of harmful agrochemicals and, on the other, they help conserve non-renewable resources. They also help agriculturists to prepare days in advance for unseasonal or extreme weather events, thereby reducing crop losses during such events.

This conference will provide you with first-hand exposure and connection to the latest innovations in Smart Farming Techniques and Sustainable Agriculture solutions.

Showcasing the latest technology and advancing the sector with representation from the following companies:



AGENDA

Day 1: 28th November 2023

Future Trends in Agriculture and Digital Transformation

08:30-09:00 Registration /Meet and Greet

09:00-09:15 Welcome and Opening remarks



09:15-10:00 Factors that Influence the Adoption of Smart Agriculture in SA

Presented by: Dr Justy Range Freshmark Systems



10:00-10:45 Smart Farming Embracing the DIGITAL EVOLUTION in SA

Presented by: Dr Dirk Troskie Director: Business Planning and Strategy Western Cape Department of Agriculture



10:45 -11:30 GIS TOOLS for Precision Agriculture and Farm Management

Presented by: Mbulisi Sibanda Department of Geography, Environmental Studies, and Tourism: University of the Western Cape



11:30-12:45 Transforming agriculture with INTELLIGENT TECHNOLOGY as the energy crisis hits SA.

Presented by: Roger Hislop Energy Management Systems Executive: CBI-Electric

13:00-14:00 LUNCH



14:00-14:45 CROP BIOTECHNOLOGY and the Future of Food

Presented by: Charles Matlou: Agri Consultant Former Marketing Manager: Corteva AgriScience



14:45-15:30 SMART Mechanisation For sustainable Farming and a Food secure World

The John Deere S.M.A.R.T initiative has seen great success in Africa. Focused on providing farmers with the right solution for their operation, the mechanisation they need for better yields, access to finance making the un-bankable bankable, reliability at lower costs, and access to training and technology.

Presented by: Zabion Reagon Business Development: Africa and Middle East John Deere SA

15:30 -15:45 BREAK



15:45-16:30 Key-note session: Harness Ag Tech to Master FARM MANAGEMENT (Zoom Session)

Presented by: Albert Anoubon Momo Vice President and Executive Director - Emerging Markets and Funded Projects : Trimble Inc. (USA)



16:30-17:15 Revolutionizing Farming with GIS: A Guide to Precision Agriculture

Presented by: Fanie Ferreira Director Professional GIS Practitioner Geoterrimage

Day 2: 29th November 2023

Agriculture Innovation -Tech Trends and Discussions



08:30-09:00 SMART irrigation technologies driving Precision Agriculture and Water Conservation

Presented by: Deon Van Rooyen Vegtech/Netafim



09:00-09:45 Maintaining sustainable food production amid escalating risks in the Agri-Sector

Presented by: Daniel Stevens Head Agriculture: Santam Insurance



09:45-10:30 How Syngenta is enabling farmers in taking agricultural production to the next level with precision technology (CROP PROTECTION AND SEED INVESTMENT)

Presented by: Brian Kritzinger Head of Commercial: Syngenta SA

10:30-10:45 BREAK



10:45-11:45 Natural drones: AI combs through busy bees' sweet data in SA first

Presented by: Alyssa Jooste Africa Sustainability Manager: Water Stewardship & Smart Agriculture: Anheuser-Busch InBev
Co presenter: Bee Odiversity



11:45-12:30 Turning promise into practice: CROP BIOTECHNOLOGY for increasing GENOME EDITING and Climate Resilience.

Presented by: Professor James Lloyd plant biotechnologist Stellenbosch University



12:30-13:00 How SA Farmers can benefit from Israeli tech. CropX tech in aiding the agri-sector.

Presented by: Yoni Roter Business Development: CropX Technologies Egypt

13:00-14:00 LUNCH

Session theme: Is DRONES the future of Agriculture?



14:00-15:00 Precision Agriculture In Action: Utilising Drone Technology For Enhanced Soil Mapping In African Agriculture



Presented by: Warren Witte CEO: Integrated Aerial Systems (IAS)

Presented by Vice Phiri CEO: Africa Drone Kings



15:00-15:45 How Blockchain Can Change Farming Solutions

Presented by Edith Kennedy SBA Programme: University of Stellenbosch



15:45-16:30 Innovate! Case study USAID Feed the Future Upskilling emerging markets' youth and workforce to inspire, empower and connect Digital Tools and how Virtual Reality can upscale small holder farmers

Presented by: Natalie Miller Co-Founder: XR Global

Day 3- 30th November 2023

Boosting Sustainability in Agriculture: The Role of Solar Power Technology

Villiera Wine Farm (Morning) Tour itinerary includes:

- Showcase and Presentation on Sustainability and Solar Power Technologies for Farming by Simon Grier Viticulturist Villiera Wines.

Simon has a strong focus green energy. Seven buildings have had Solar Domes installed and operate 80% of the time on natural sunlight. With power becoming excessively expensive, green energy is becoming increasingly attractive, both financially and philosophically. In 2010 Villiera investigated the options and decided to take the plunge by installing Solar Power to supply all Villiera's daytime requirements outside of harvest time. This involves approximately 950 m² of Solar Panels mounted on cellar roofs capable of generating 132 KW of power. Villiera were the first winery in South Africa to follow this path.



PRECISION IRRIGATION - Power a Sustainable Farming Ecosystem to ensure a Food Secure Future - Zetler's Farm (Afternoon)

Discover the latest cutting-edge technologies that are changing the way farmers approach irrigation by joining us on a site visit to **Zetler's Farm**.

Precision Irrigation is fundamental for stabilising global food security.

From the plant to the planet - everybody wins. Precision irrigation benefits the:

- Plants • Farmer • Planet

These systems use sensors and data analytics to deliver water to crops in the right amount and at the right time, maximizing water use efficiency.

Modernising irrigation is fundamental for stabilising global food security, freshwater availability, and the economic stability of farmers. Sustainable agriculture depends on effective water management. If governments, local authorities and farmers want to secure the future of farming, they must invest in modern infrastructure and precision irrigation.

Tour Itinerary And Visit includes Presentation and Demo on the latest in Precision Irrigation Technology.