

# 3<sup>rd</sup> AFRICAN CONFERENCE ON PRECISION AGRICULTURE

MAIN CONFERENCE SITE:

**Marrakech, Morocco**

**3-5 • December • 2024**



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**PRECISION AGRICULTURE**  
*in ACTION for AFRICA*

Zimbabwe Satellite Site Program



ORGANIZED BY:



**UM6P**

University  
Mohammed VI  
Polytechnic



**AAPA**  
AFRICAN ASSOCIATION  
for  
PRECISION AGRICULTURE

**ISPA**  
International Society of Precision Agriculture



AFRICAN CONFERENCE ON  
**Precision  
Agriculture**

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ABOUT THE

# African Conference on Precision Agriculture



The mission of the African Conference on Precision Agriculture (AfCPA) is to “connect the science and practice needed to put precision agriculture in action for Africa.” Through this mission, AfCPA seeks to provide a pan-African platform focused on highlighting new advances in the fields of experimental and applied precision agriculture.

The conference is aimed at strengthening and supporting the precision agriculture community within the African continent. AfCPA wishes to engage key stakeholders including scientists, policymakers, extension staff, crop consultants and advisors, agronomists, and service providers towards the common goal of building the capacity and resilience of African cropping systems.

AfCPA 2024 is one conference, multiple satellite site event offering a local opportunity to view presentations from the main conference while participating in a regional precision agriculture program organized by the site's host.



#### MAIN SITE:

Marrakech, Morocco

#### SATELLITE SITES:

- Abomey-Calavi, Benin
- Abidjan, Côte d'Ivoire
  - Cairo, Egypt
- Addis Ababa, Ethiopia
  - Cape Coast, Ghana
  - Nairobi, Kenya
  - Abeokuta, Nigeria
- Pietermaritzburg, South Africa
  - Harare, Zimbabwe

AfCPA is an initiative of the African Plant Nutrition Institute (APNI) in partnership with Mohammed VI Polytechnic University (UM6P), the International Society of Precision Agriculture (ISPA), and the African Association for Precision Agriculture (AAPA).



## SATELLITE SITE HOSTS

**Prof. Adima Amissa Augustin**

National Polytechnic Institute  
Félix Houphouët-Boigny, Côte d'Ivoire

**Prof. Dr. Abdelaziz Belal**

National Authority for Remote  
Sensing and Space Sciences, Egypt

**Dr. Temesgen Desalegn**

Ethiopia Institute  
of Agricultural Research

**Prof. Kwame Frimpong**

University of Cape Coast, Ghana

**Femi Adekoya**

Integrated Aerial Precision, Nigeria

**Dr. Tafadzwa Mabhaudhi**

University of KwaZulu-Natal, South Africa

**Dr. V. Nicodeme Fassinou Hotegni**

Genetics, Biotechnology &  
Seed Sciences Unit (GBioS),  
Abomey-Calavi Atlantique, Benin

**Dr. Onesmas Kitonyo**

University of Nairobi, Kenya

**Dr. Regis Chikowo**

Plant Production Sciences  
and Technologies  
University of Zimbabwe



**AfCPA Program Chair**

**Dr. Steve Phillips**

SENIOR CONSULTING SCIENTIST  
African Plant Nutrition Institute (APNI)  
e-mail: s.phillips@apni.net

# Program - Day 1

All times listed are GMT +2

## Conference Program Legend

Plenary Session	Keynote Presentation	Local Session	Panel Session	LS - Live at Site	LV - Live (virtual)	R - Pre-recorded
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Day 1 – Tuesday, 3rd December						
08:00	<b>Welcome Session</b>					LS
09:00	<b>General Session 1</b>					LS
	<b>Local Presenter 1</b>					
09:20	<b>Local Presenter 1</b>					LS
09:40	<b>Break/Posters/Exhibits</b>					
10:10	<b>General Session 1 (continued)</b>					R
	<b>Real-Time Moisture Control in Irrigation Systems for Water use Efficiency and Climate Change Resilience. A Review</b> <i>Didier KINDIKIZA</i>					
10:30	<b>Reduced Tillage and Crop Diversification for Improved Grain and Nutritional Yield in Rain-Fed Maize Based Cropping Systems of Semi-Arid Malawi</b> <i>Donald Nyamayevu</i>					R
11:00	<b>Keynote Presentation 1</b> <b>Presentation by</b> <i>Anthony Chapoto - Africa Network of Agricultural Policy Research Institutes</i>					LV
11:30	<b>Keynote Presentation 2</b> <b>Presentation by</b> <i>Richard Ferguson - Rwanda Institute for Conservation Agriculture</i>					LV
12:00	<b>LUNCH BREAK</b>					
13:00	<b>General Session 2</b>					R
	<b>Toward Precision Agriculture by Assessing FAO Soil Data Accuracy with Localised Soil Mapping in Mid-Western Uganda</b> <i>Emmanuel Ojambo</i>					
13:20	<b>The Development of a Geo-Integrated Pest Management System (Geo-Ipm) for the Monitoring of Cereal Diseases in Algeria</b> <i>Salim LAMINE</i>					R
13:40	<b>Rainwater Harvesting And Nutrient Intensification In Maize-Legume Farming Systems In Semi-Arid Zimbabwe</b> <i>Eleanor Mutsamba-Magwaza</i>					R
14:00	<b>Evaluating Soil Organic Matter Under A No-Till System Using Digital Sensors (EM38 and MSP3)</b> <i>Hasna HAJJAJ</i>					R

# Program - Day 1

Day 1 – Tuesday, 3rd December		
14:20	<b>Break/Posters/Exhibits</b>	
15:00	<b>Keynote Presentation 3</b> <b>How 100,000 Automatic IOT Weather Stations for Disease, Irrigation and Fertilizer Management will Change the Life of 10 Million Smallholder Farmers and Create New Local Jobs for 10,000 Digital Farm Advisors?</b> <i>Gottfried Pessl - Pessl Instruments GmbH</i>	LV
15:30	<b>Plenary Session 1 – Precision Ag Service for Smallholders</b> <b>Presentation by</b> <i>Abdellah Hamma - OCP Nutricrops</i>	LV
15:50	<b>Presentation by</b> <i>Musa Mishamo - Hexagon Agriculture</i>	LV
16:10	<b>Presentation by</b> <i>Robert Blair - Blair Farms</i>	LV
16:30	<b>Human-Powered Proximal Soil Sensing for Small Farms</b> <i>Eric Lund - Veris Technologies, Inc.</i>	LV
17:00	<b>Adjourn</b>	

# Program - Day 2

Day 2 – Wednesday, 4th December		
08:00	<b>Welcome Session</b>	LS
	<b>Plenary Session 2 – Precision Ag Adoption in Africa (pre-recorded)</b>	
09:00	<b>Overview of Precision Agriculture in Africa</b> <i>Samuel Njoroge - African Plant Nutrition Institute (APNI)</i>	R
09:20	<b>Yield of Maize (Zea Mays L.) Varieties as Affected by Neem Oil Coated Urea Application in Southern Benin</b> <i>Vodjo Nicodeme FASSINOU HOTEgni - University of Abomey-Calavi (UAC)</i>	R
09:40	<b>Scalable Artificial Intelligence, Geospatial Big Data Analytics and Digital Agriculture: a Focus on Lessons Learnt and Their Implication for Improved Production</b> <i>Kwabena Niketia - University of Saskatchewan</i>	R
10:00	<b>Presentation by</b> <i>Tomisin Adefare - GBFoods</i>	R
10:30	<b>Break/Posters/Exhibits</b>	
	<b>Plenary Session 3 - Remote Sensing Applications</b>	
11:00	<b>Assessment of Nitrogen Fertilization in Tunisian Wheat Production Using Proximal and Remote Sensing</b> <i>Mouna Mechri - National Institute of Field Crops (INGC)</i>	LV
11:20	<b>Engineering Technology for Crop Monitoring and Disease Identification</b> <i>Manuel Perez Ruiz - Smart Biosystems Laboratory, University of Sevilla</i>	LV
11:40	<b>Presentation by</b> <i>Anthony Hall - Dronelytics (virtual)</i>	LV
12:00	<b>Presentation by</b> <i>Steve Phillips</i>	LV
12:00	<b>LUNCH BREAK</b>	
	<b>General Session 3</b>	
13:30	<b>Preservation of Encroached Gazetted Wetland Through Assessing Moisture Conditions of Riparian Fringes Under Upland Rice Production in Uganda</b> <i>Patrick Musinguzi</i>	R
13:50	<b>Inter-Country Cooperation Can Transform Precision Agriculture Education and Research in Africa</b> <i>Kwame Agyei Frimpong</i>	R
14:10	<b>Local Presenter 3</b>	LS
14:30	<b>Local Presenter 4</b>	LS
14:50	<b>Local Presenter 5</b>	LS
15:00	<b>Break/Posters/Exhibits</b>	

# Program - Day 2

## Day 2 – Wednesday, 4th December

15:30	<b>Keynote Presentation 4</b> <b>Presentation by</b> <i>Dr. Donald Kelechi Madukwe - OCP Africa</i>	LV
15:50	<b>Keynote Presentation 5</b> <b>Presentation by</b> <i>Pauline Chivenge - IRRRI</i>	LV
16:20	<b>Panel 1 – Women in Precision Agriculture</b> <b>Women in Precision Agriculture - Panel Discussion</b> <i>Tangi Aziza - UM6P and APNI</i> <i>Mouna MECHRI - National Institute of Field Crops (INGC)</i> <i>Tomisin Adefare - GBFoods</i> <i>Pauline Chivenge - IRRRI</i>	LS
17:00	<b>Adjourn</b>	



# Program - Day 3

Day 3 – Thursday, 5th December		
08:00	<b>Welcome Session</b>	LS
09:00	<b>Keynote Presentations 6 – (pre-recorded)</b> <b>Precision Water Management Strategies for Africa</b> <i>George Vellidis - University of Georgia</i>	R
09:30	<b>Plenary Session 4 - Precision Water Management (pre-recorded)</b> <b>Presentation by</b> <i>Sameh El-Sawy</i>	R
09:50	<b>Application of Remote Sensing for Drought Monitoring Using Vegetation Indices in Pineapple Growing Areas in the Central Region of Ghana</b> <i>Emmanuel Hanyabui - University of Cape Coast</i>	R
10:10	<b>Presentation by</b> <i>Zakaria Hazzoumi - UM6P</i>	R
10:30	<b>Break/Posters/Exhibits</b>	
11:00	<b>Keynote Presentation 7</b> <b>Presentation by</b> <i>TBD - OCP Nutricrops</i>	LV
11:30	<b>Plenary Session 5 – Precision Nutrient Management</b> <b>iSDA's Virtual Agronomist – Expert Advice for Every Farmer</b> <i>Paul Chunga - iSDA (virtual)</i>	LV
11:50	<b>Use of "FertiEdge" Application for Optimizing Wheat Fertilization</b> <i>Ibtihel Sbai - National Institute of Field Crops</i> <i>Mohammed Hmimou</i> <i>Faissal SEHBAOUI - AgriEdge SA, Benguerir, Morocco</i>	LV
12:10	<b>Presentation by</b> <i>Amine Jamal - OCP Nutricrops</i>	LV
12:30	<b>Keynote Presentation 8</b> <b>National Agricultural Data Infrastructure As Bedrock for Precision Agriculture</b> <i>Benjamin Kwasi Addom - Commonwealth Connectivity Agenda for Trade &amp; Investment (CCA)</i>	LV
13:00	<b>Closing Session and Awards - APNI - Kaushik Majumdar</b>	LV
13:30	<b>Adjourn</b>	







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