



THE 7TH EDITION OF
Seed AFRICA
Connect 2024
Conference and Exhibition

The Largest gathering of Seed Industry Stakeholders in Africa
Seedconnect Africa Conference and Exhibition 2024
...Ushering in quality seeds for African farmers

26th & 27th Nov. 2024
NICON Luxury Hotel, Abuja.



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Seed AFRICA
Connect 2024
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NATIONAL AGRICULTURAL SEEDS COUNCIL
008021811180, 070000SEEDS (07000073337) or 08113887697
or visit our office at - Km 29, Abuja-Lokoja Expressway Sheda, FCT.

- @NASC_NG
- @NASCNG
- www.seedcouncil.gov.ng
- info@seedcouncil.gov.ng
- KM 29, Abuja-Lokoja Expressway, Sheda, FCT

Theme —
**Leveraging Seed Technology to Scale
up Africa's Agricultural Productivity**

Geographical context in plant breeding priorities – groundnuts in West and Southern Africa.

Agnes Mbugua-Gitonga, Pieter Rutsaert, Victor Kitoto, Colleta Khaemba, Folarin Okelola, Dan Bunter, Akan Uteh, Charles Onwuka and Temitope Olasunkanmi

Introduction

Geographical context plays a critical role in determining breeding priorities for a crop. Key drivers that have historically been prioritized in breeding programs include -

Climatic conditions – Optimal yields – Biotic and abiotic stress – Maturity

However, an easy to grow crop is not all that is required to drive variety adoption within geographical context. End use requirements and preferences may also differ from one geographical location to the other. Within geographical context, the use of any crop is influenced by several factors for example the crop may play a critical role in cultural and religious ceremonies with specific requirement that need to be put into consideration in choosing the right variety suitable for each region. Historical production context is also a key factor. Such factors need to be considered as part of product adoption drivers. A study was conducted on groundnuts in Malawi and Nigeria as key groundnuts producing countries in Africa, aiming to identify various end uses to inform trait consideration in the TPPs.

Methods

Scope and methods

- Primary data was collected through Key Informant Interviews (KII) as well as Focus Group Discussions (FGD) in Malawi and Nigeria
- FGDs were done with farmers and Kilns from traders, exporters, government officials, processors and seed companies.
- Data was collected in Lilongwe and Mchinji districts in Malawi and Kaduna, Kano and Abuja states in Nigeria.
- Other information sources were visits to the local market, supermarkets and tours of processing facilities.

Respondents	Malawi	Nigeria
Focus group discussions with groundnut farmers	4 (2 male FGD and 2 female FGD *6-8 farmers each*)	4 (2 male FGD and 2 female FGD *6-8 farmers each*)
Groundnuts Processors	1 small, 1 medium, and 1 large	1 small, 1 medium, and 1 large
Groundnut Traders	1 small, 1 medium, and 2 large	2 Traders
Groundnut Exporters	2 large	
Groundnut Seed Producer (e.g., seed company and outgrowers)	1 medium, and 1 large	2 medium
Groundnut Breeder	Department of Agricultural Services (DARS)	
Associations	NASFAM, PYXUS	
Government	1 Ministry of Trade official	2 government officials

Results and Findings



Oil production

- Groundnut oil production in Nigeria is done at cottage industry level and industrial level.
- Groundnut has the highest oil content of all food crops and is second only to soybean in term of protein content (20-30%) among the food legumes



Processing kuli kuli

- Groundnut cake is the byproduct obtained after oil is extracted from groundnut paste
- The groundnut cake is prepared by adding water intermittently to soften the thick groundnut paste for easy moulding into desired shapes.
- These are fried in a small frying pan containing hot groundnut oil



Whole grain consumption when boiled or roasted.

- The main consideration for groundnut consumed when boiled or roasted is low oil content.



Haulms for animal feed

- Haulm yield and quality is important across all groundnuts market segments.

Ground nut in Malawi is for local and export market, with greater focus on export market

The market is very specific on color and size.

Uniformity of the groundnuts

More structured market targeting export market.



Basic seed



Processing plant



Grain for sale



Color and size is an important factor



Groundnut flour



Roasted groundnuts

Trait Prioritization Nigeria vs Malawi Comparison

Trait prioritization	Nigeria	Malawi
Oil content	Yes	No
Haulm quality and quantity	Yes	No
Colour differentiation	No	Yes
Maturity	Yes	Yes
Size	No	Yes
Aflatoxins	Yes, but only for health reasons	Yes

Summary

The study demonstrated, Nigeria and Malawi have very different market end use requirements thus different trait requirements in the TPPs. In Nigeria, the entire groundnuts is useful mainly serving the local market

Groundnuts processing for oil and kuli kuli production require groundnuts that have high oil content, this becomes a key trait. For oil production, traits like colour and the size of the groundnuts are irrelevant. For boiled and roasted groundnuts, high oil content is not desirable. Groundnuts haulms in livestock rearing as feed is key in Nigeria. Making haulm volume and quality are a key trait regardless of groundnut end use of any groundnut variety.

In Malawi this is largely driven by export market and local market

Color, size, uniformity of grain are important traits. High oil content is not a key trait in Malawi. Haulms are not a key requirement

The TPPs for identified market segments in the two countries will be revised to prioritize relevant end use traits.

Conclusion

When it comes to breeding prioritization, geographical context should be considered wholesomely to ensure key adoption drivers are put into consideration.

Generalisation of geographical context may present a risk of either putting resources in breeding for a non-priority trait or overlooking key trait that drive adoption in each region.

Both scenarios are a loss to any breeding program.

Gathering relevant market intelligence within geographical context is a prerequisite for optimised breeding prioritization for purposes of driving product adoption and focused breeding resources utilisation.

References

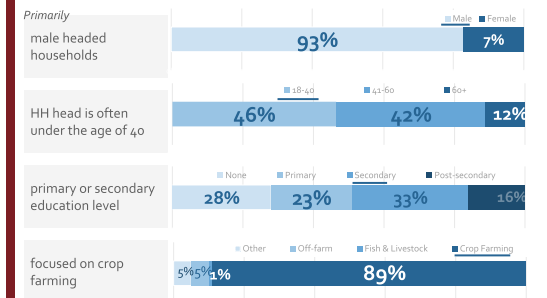
Donovan, J., Cochrane, P., Rutsaert, P., Pritzinger, M., Gitonga, A., Naziri, D., Demont, M., Newby, J., and Ndegwa, M. 2022. Market Intelligence for Informing Crop Breeding Decisions by CGIAR and NARES. Market Intelligence Brief Series 1. Montpellier: CGIAR. hdl.handle.net/10883/22248



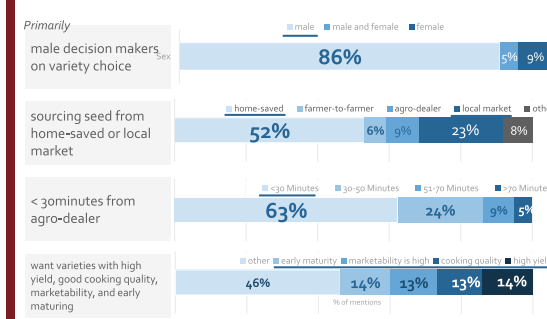
Nigeria Genotyped Crop Survey

Folarin Okelola, Mark Nelson, Brian Love, Cecilia Mwangi, David Wainaina, Akan Uteh, Charles Onwuka, Ayodeji Sunday Ogunleye, Olabisi Olajire and Glayds Mutua

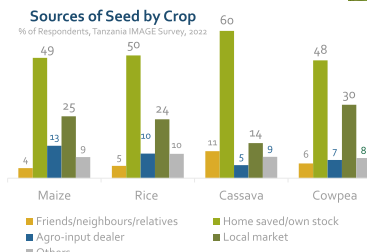
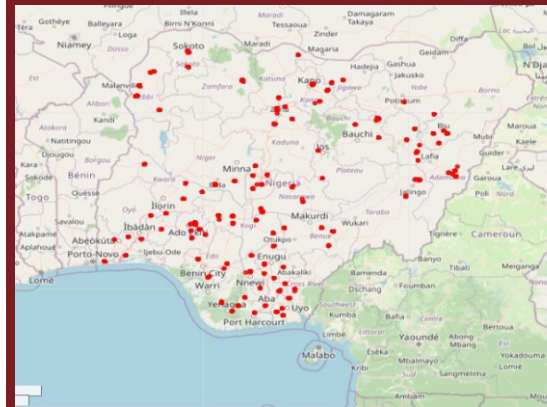
Sample Profile



Seed Selection Behaviors



Survey Locations



Varietal Monitoring Roadmap

Genetic Reference Library



Among the improved maize and rice varieties in the GRL are 8 maize and 6 rice varieties that are not registered in the Nigerian catalogue but exist in the regional catalogue. Samples collected are lower than those in national catalogue because select institutions failed to provide old varieties and certain proprietary varieties.

Monitoring Survey

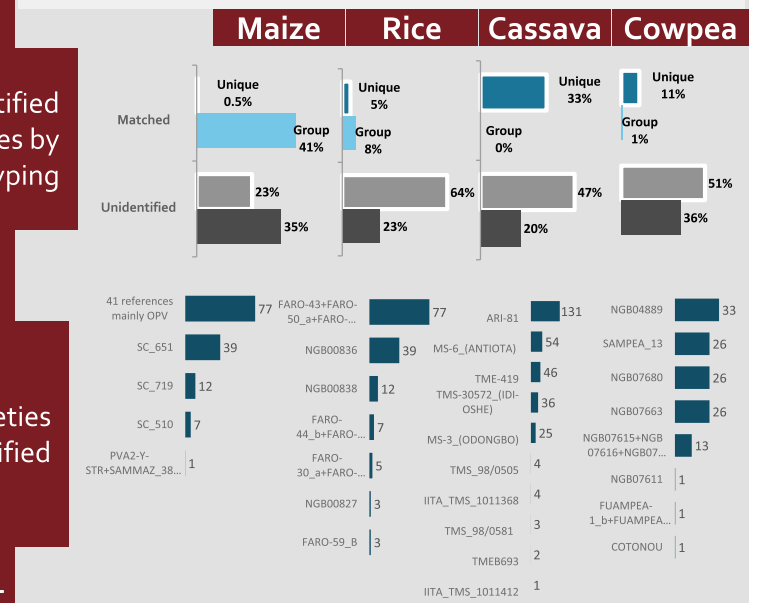


Household Survey	6 Zones/ 26 States / 103 villages
Samples Genotyped	2,059 Farmers / 4,326 Plantings
Maize	1060
Rice	1004
Cassava	799
Cowpea	1005

Identified Varieties by Genotyping



Top Varieties Identified



Learnings and Key Challenges Resolved (or to be Overcome)

Notes

- *Maize GRL: 45 hybrids (male and female genotyped)
- * Selected Identity-by-State (IBS) cut-off level 0.8 for all crops;
- (I) = improved (L) = Landrace
- *Genotyped, improved varieties

Collaborators





NATIONAL ANTHEM

Nigeria we hail thee,
Our own dear native land,
Though tribe and tongue may differ,
In brotherhood we stand,
Nigerians all, and proud to serve
Our sovereign Motherland.

Our flag shall be a symbol
That truth and justice reign,
In peace or battle honour'd,
And this we count as gain,
To hand on to our children
A banner without stain.

O God of all creation,
Grant this our one request,
Help us to build a nation
Where no man is oppressed,
And so with peace and plenty
Nigeria may be blessed.



NATIONAL PLEDGE

I pledge to Nigeria my Country
To be faithful, loyal and honest
To serve Nigeria with all my strength
To defend her unity
And uphold her honour and glory
So help me God.



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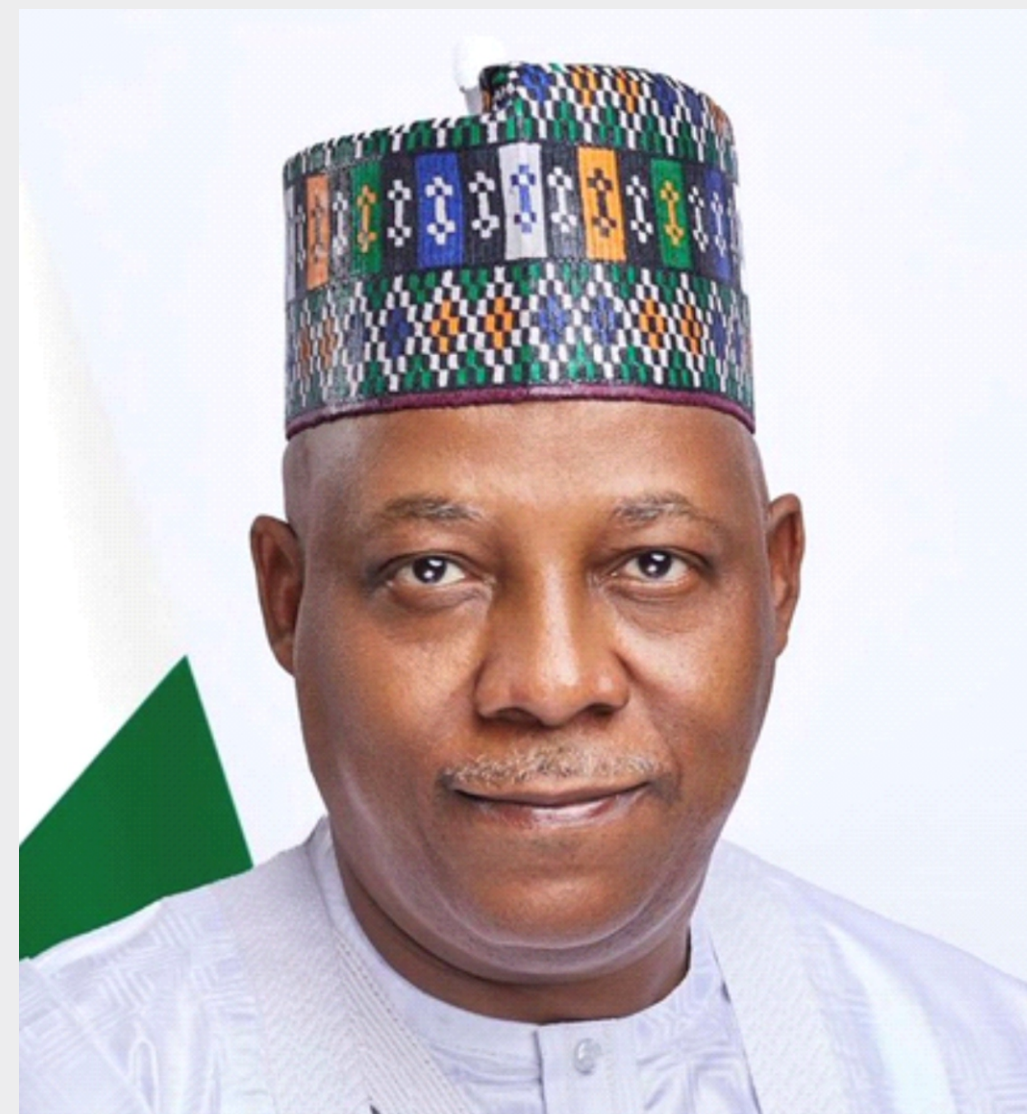


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HIS EXCELLENCY
BOLA AHMED TINUBU, GCFR

PRESIDENT, COMMANDER-IN-CHIEF OF THE ARMED FORCES
FEDERAL REPUBLIC OF NIGERIA.



HIS EXCELLENCY
SEN KASHIM SHETTIMA, GCON

VICE PRESIDENT,
FEDERAL REPUBLIC OF NIGERIA.



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BENJAMIN KALU, CON

DEPUTY SPEAKER, HOUSE OF REPRESENTATIVES,
FEDERAL REPUBLIC OF NIGERIA



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**SENATOR SALIU
MUSTAPHA TURAKI**

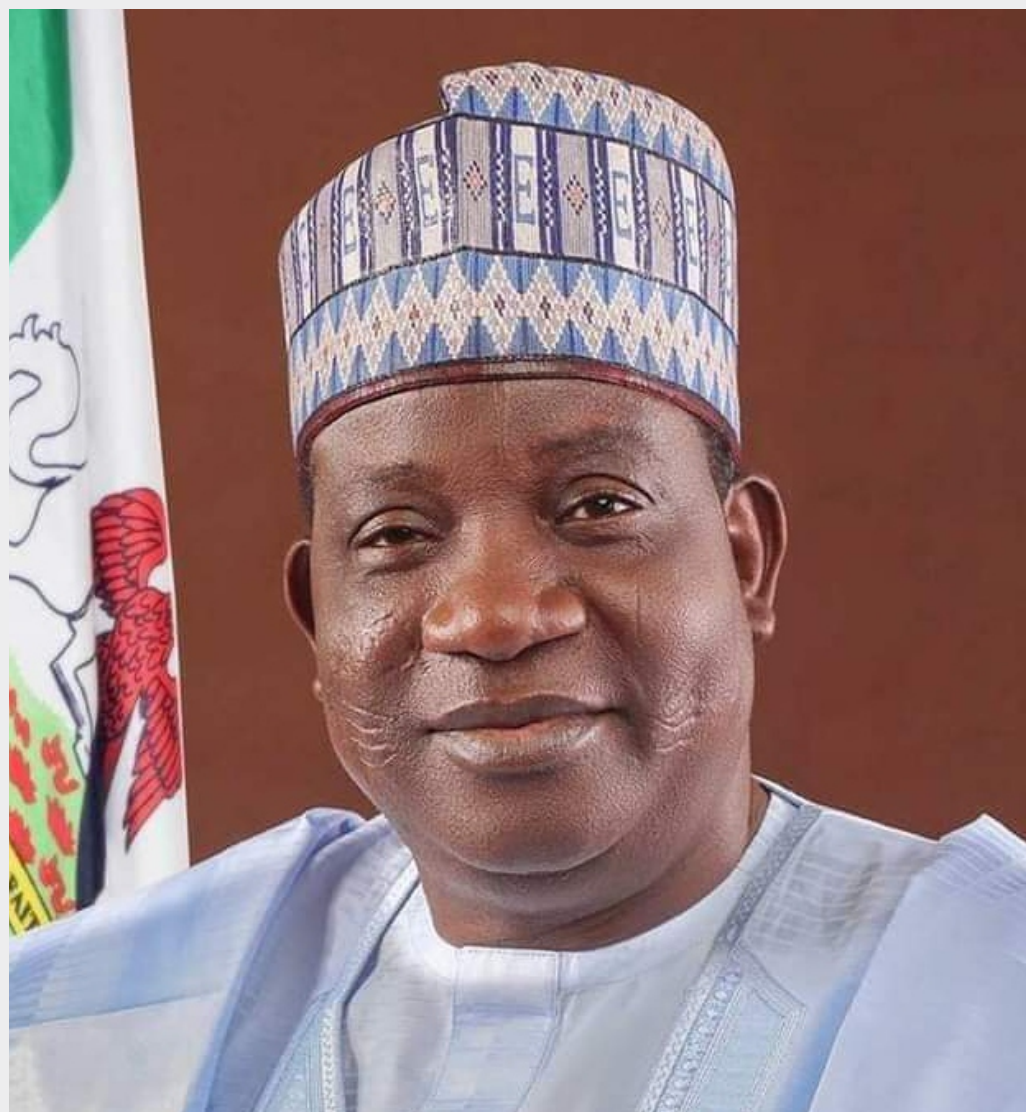
CHAIRMAN, SENATE COMMITTEE ON AGRICULTURE
PRODUCTION SERVICES AND RURAL DEVELOPMENT



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**RT. HON SIMON
BAKO LALONG**

CHAIRMAN, SENATE COMMITTEE ON AGRICULTURAL
COLLEGES AND RESEARCH INSTITUTIONS



HON. BELLO KAOJE

CHAIRMAN, HOUSE COMMITTEE ON AGRICULTURAL
PRODUCTION SERVICES AND RURAL DEVELOPMENT



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**HON. ADEYEMI
AKEEM ADENIYI**

CHAIRMAN, HOUSE COMMITTEE ON AGRICULTURAL
COLLEGES AND RESEARCH INSTITUTIONS



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SEN. ABUBAKAR KYARI

HONOURABLE MINISTER, MINISTRY OF
AGRICULTURE AND FOOD SECURITY



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**SEN. ALIYU
SABI ABDULLAHI**

HONOURABLE MINISTER OF STATE FOR
AGRICULTURE AND FOOD SECURITY



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TEMITOPE FASHEDEMI

PERMANENT SECRETARY OF THE FEDERAL
MINISTRY OF AGRICULTURE AND FOOD SECURITY



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DR. ISHIAQ KHALID

Ag. DIRECTOR-GENERAL,
NATIONAL AGRICULTURAL SEEDS COUNCIL.
HOST



2024 SEEDCONNECT CHAIRMAN OF PANEL SESSION, PANEL MEMBERS AND HOSTS



**Akintoye
Olagbaju, Ph.D**
Chief Research
Scientist
(Postharvest
Entomologist)
Nigerian Stored
Products Research
Institute (NSPRI)



**Chinedu
Agbara,**
Sahel
Consulting.
Role: Facilitator



David Onu
MD INTERA
Network
Role: Panelist,



**Dr Arnab
Gupta**
WCDI
Netherlands.



**Dr Damian
Ndubuisi Njoku**
Director,
Cassava Research
Development,
NRCRI Umudike
Role: Panelist,



**Dr Lucky
Omoigui,**
International
Institute of Tropical
Agriculture (IITA)
Role: Panelist,
Perspective
on Variety
Deployment



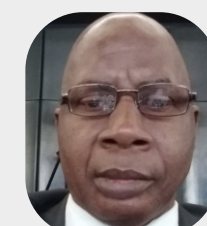
**Dr Oyawale
Ibitoye**
MD Premier
Seeds Limited
Role: Panelist



**Afolabi Samson
O. (PhD.)**
Research and
Production Manager,
Premier Seed
Nigeria Limited
Role: Panelist,



**Dr Samaila
Aliyu**
Head of Value
Chain
Development
at FMN Plc.
Role: Panelist



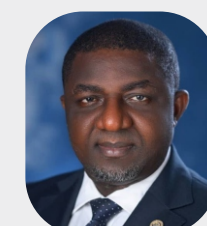
**Dr Sunday
Aladele**
National Centre
for Genetic
Resources and
Biotechnology
(NACGRAB)
Role: Panelist



**Dr William
Malafwal**
Program Manager,
Oxfam
Role: Panelist,
perspective on
humanitarian and
food security



Inge Tenniglo
Agricultural
Counsellor for
Nigeria and
Ghana.
Role: Panelist,
Perspective on
Donor Alignment



**Hon. Patrick
Nwabueze
Ubru**
Commissioner
for Agriculture
and Agro
Industrialization,
Enugu State



**Mr Daniel
Aghan**
Communication
Officer AFSTA
Nairobi Kenya
Role: Panelist



**Peter
Gildemacher**
Agricultural
systems and
seed sector
specialist

2024 SEEDCONNECT CHAIRMAN OF PANEL SESSION, PANEL MEMBERS AND HOSTS



2024 SEEDCONNECT CHAIRMAN OF PANEL SESSION, PANEL MEMBERS AND HOSTS



**Prof Lateef
Oladimeji
Sanni**

Executive
Director,
NSPRIPM



**Prof Morufat
Balogun**

IITA- PROSSIVA
Project
Role: Panelist,



**Prof Mrs N. I.
Odiaka**

Director Seed
Technology Centre
Joseph Sarwuan
Tarka University
Makurdi
Role: Panelist,



**Dr Philip
Olusegun Ojo**

Former Director-
General, National
Agricultural Seeds
Council



**Prof. Bello
Abubakar Zaki,**

Agricultural
Research
Council of
Nigeria (ARCN)



**Prof Adesola
Ajay**

Professor of Seed
Science and Vice
Chancellor First
Technical
University Ibadan
Oyo State



**Malam Dahiru
Rabiu**

Director DG's
Office National
Agricultural
Seeds Council



**Temidayo
Owoeye**

SEEDCO



**Dr Osho
Langunju
Bankole**

National
Agricultural Seed
Council (NASC)
Role: Panelist,
Perspective on
Quality Assurance



**Dr. Ibrahim
Mohammed
Arab**

National Program
Coordinator (NPC)
ATASP-1



**Adedayo
Adetumbi**

IART Moor
Plantation
Ibadan



**Mr. Ebiarede
Zidafamor**

Director NASC



**Timothy
Azakere**

(Foundation for
Sustainable
Smallholder
Solutions)
Role: Panelist



**Mr. Geoffrey
Nsofon**

TAAT Private
Sector Specialist



**Frank
Ugbodaga**

Founder, 3G -
(Grant Group
Global)
Entrepreneurship
Support and
Investment
platform



**Dr Folarin
Okelola**

Acting Registrar
PVP Office
Nigeria and
Convener of
SeedConnect



**Cecilia
Mwangi**

Senior Program
Coordinator



**Dr Godwin
Atser**

Country Director
SAA Nigeria -
Keynote Speaker
2 and panelist



**Prof Yusuf
Ahmad Sani**

Executive
Director
NAERLS



**Dr Anthony
Job**

Head,
Agronomy
and Seed
Development.



**Walter De
Boef**

Wageningen
University and
Research (WUR).
Role: Session
Facilitator

SEED-CO

The African Seed Company

PRODUCT PORTFOLIO

HYBRID MAIZE		
Variety	Maturity	Days
SC 419	Extra Early Maturity	(85-90 days)
SC 510	Early Maturity	(90 days)
SC 612 SC 649 SC 651	Medium Maturity	(110 days)
SC 719	Late Maturity	(110-120 days)

SOYBEAN		RICE	
SC SL 01	TGX 1448-2E	Faro 44	Faro 52

The Home of Bumper harvest

OFFICE ADDRESSES

KADUNA:
NN 16 Constitution Road Opposite Stadium Second Gate, Kaduna State.
// LATITUDE: 10.5026251 // LONGITUDE: 7.4296591

ZARIA:
Shop A19 & A20 Hul-Hulde Plaza, Banda Kano Sakata Road, Zaria,
Kaduna State. // LATITUDE: 11.1257644 // LONGITUDE: 7.7096778

JOS:
No. 2 Anguldi Express Opp. Mafong Plaza before Fire Service, Jos, Plateau
State. // LATITUDE: 9.7761533 // LONGITUDE: 8.85675

KOTANGORA:
No. 11 NTC Tobacco, Kotangora, Niger State. // LATITUDE: 10.4058809 // LONGITUDE: 5.4817487

KANO:
Shop 83 at Santa Shopping Complex, Murtala Mohammed Way, Kano State.
LATITUDE: 12.0103442 // LONGITUDE: 10.4058809

SAMINAKA:
Ahmadu Bello Way beside Magistrate Court, Opposite Police Station Saminaka, Kaduna State.
LATITUDE: 10.4213457 // LONGITUDE: 8.6757021

ISEYIN:
Alhaji Dare House, beside Ba-Nfali Cool Spot Barracks, Iseyin, Oyo State.
LATITUDE: 7.9593653 // LONGITUDE: 3.8122989

GOMBE:
ASM MAI MANJA PLAZA Main Market Road opposite Jaiz Bank, Gombe - Gombe state.
LATITUDE: 10.2831267 // LONGITUDE: 11.18297

OYO:
Adesakin House, Abiodun Aliba Road, Ibi-Opa, Oyo, Oyo State.
LATITUDE: 7.84726 // LONGITUDE: 3.92907

YOLA:
SHOP 3 & 4 Yellare Plaza Target Junction Gimbo Road, Jimeta -Yola,
Adamawa State. LATITUDE: 9.2718171 // LONGITUDE: 12.4532972

SULEJA:
Al-Nurul Huda Barau Shopping Plaza Panfeka Suleja, Niger State.
LATITUDE: 9.20583 // LONGITUDE: 7.17271

JALINGO:
No 157 Mommaruwa Way, Jalingo Taraba State.
LATITUDE: 8.923 // LONGITUDE: 11.339

EDO:
Progressive Plaza No 2 Isakhere street off ire road, opposite Muri line Benin city.
LATITUDE: 6.33837 // LONGITUDE: 5.61996

PROGRAMME OF EVENTS

DAY ONE - TUESDAY 26, NOVEMBER 2024

OPENING DAY

Event facilitators/anchors: Dr. Folarin Okelola, NASC and Daniel Aghan (AFSTA, Nairobi Kenya)

8:00 AM - 9:00 AM

REGISTRATION AND NETWORKING

- Attendees check-in and receive their conference materials and network.

9:00 AM - 11:00 AM

OPENING CEREMONY

- Welcome Address:** by the Chief Convener of the Conference.
- Goodwill Messages:** Government representatives, major sponsors, organizations/partners.
- Special Remarks by Guests of Honour:** H.E Ambassador of Netherlands and other Ambassadors/Chairs of National Assembly Committees on Agriculture and other Chairs of Committees/ Permanent Secretary FMAFS
- Keynote Speaker 2:** Dr Godwin Atser, Country Director SAA - *Leveraging Seed Technology to Scale Up Africa's Agricultural Productivity*
- Keynote Speaker 1:** The Honourable Minister of State Agriculture and Food Security- Senator Dr Aliyu Sabi Abdullahi (CON) - *Leveraging Seed Technology to Scale Up Africa's Agricultural Productivity*
- Special Address and Event Opening:** The Honourable Minister of Agriculture and Food Security- H.E Distinguished Senator Abubakar Kyari (CON)

11:00 AM - 11:45 AM

TEA/COFFEE BREAK & EXHIBITION TOUR

- Attendees explore exhibition booths showcasing the seed industry's latest products, technologies, and services.

11:45 AM - 12:45 PM

Plenary Session 1 – The Future of Seed Technology in Africa

- Panel discussion with industry experts on the latest advancements in seed technology and their potential to drive productivity.
- Topics:** Innovations in seed genetics, resilience to climate change, and the role of digital technology in seed research, development, and storage.
- Focus will be on:**
- Seed Breeding & Biotechnology – Innovations and Challenges
- Policy and Regulation – Strengthening Seed Systems for Agricultural Growth.
- Climate-Resilient Seed Research and Development – Tackling Climate Change through Seed Innovation.
- Seed Storage - Improving the shelf life of seeds through innovative storage techniques.
- Panelists: The session to be facilitated by Prof. Mrs N. I. Odiaka and will comprise of the following:**
- Breeder- Dr. Rufus Olaogbaju of NSPRI
- Dr Rufus Idris AGRA Country Director

- Mr Geoffrey Nsofon TAAT Private Sector Specialist / ACLBC
- Mr Temidayo Owoeye MD SEEDCO Nigeria

12:45 PM - 1:45 PM

PLENARY SESSION 2 – LEVERAGING TECHNOLOGY FOR SEED DISTRIBUTION AND ACCESS

- Discussions on the role of technology in improving seed distribution, addressing access challenges, and reducing seed costs for farmers.
- Focus of the session:**
- Digital Tools for Seed Industry Transformation
- Partnerships in the Seed Industry – Collaborations for Growth
- Financing Seed Innovation – Access to Funding and Investment Opportunities
- Panelists: The session to be facilitated by Prof. Sola Ajayi will comprise the following:**
- Cecilia Mwangi – Resourced Global
- Mr David Onu - INTERA
- Dr Oyewale Ibitoye MD Premier Seeds Limited
- Dr Samaila Aliyu – Head Value Chain Development FMN PLC

1:45 PM - 2:15 PM

LAUNCHING THE NIGERIA SEED PORTAL AND THE NATIONAL SEED ROADMAP DASHBOARD AND PRESENTING THE GAZETTED PLANT VARIETY PROTECTION REGULATION FOR PUBLIC AWARENESS – CSP/NACGRAB/PVP TEAM.

2:15 PM – 3:15 PM LUNCH AND NETWORKING

3:15 PM - 3:30 PM

SEEDCONNECT DRAMA SERIES

- The drama will focus on the Nigeria Variety release and Plant Variety Protection Portal established to simplify the variety release and protection process to usher in promising varieties of crops for increased productivity and profitability for farmers and seed industry businesses.

3:30 PM - 4:30 PM

PLENARY SESSION 3 – FARMER COMMUNITY-MANAGED SEED SYSTEM

- Focus of the session:** This will be an interactive session for industry stakeholders on the topic of a community-based seed system to ensure access to quality seeds for all.
- Panelists: Session to be chaired by Walter De Boef and will comprise of the following:**
- Dr Sunday Aladele, National Centre for Genetic Resources and Biotechnology (NACGRAB)
- Inge Tenniglo, Agricultural Counsellor for Nigeria and Ghana.
- Malam Idris Dantsoho, National Agricultural Seed Council (NASC)
- Dr Lucky Omoigui, International Institute of Tropical Agriculture (IITA)

4:30 PM - 5:00 PM

RECOGNITION OF SPONSORS /PRESENTATION BY PLATINUM AND GOLD SPONSORS

- Presentation by the lead sponsors.
- The lead sponsors showcase their company**
- Presenters: Representatives of the lead sponsors**

5:30 PM - 7:00 PM

GALA NIGHT SPONSORED BY GOLD SPONSOR OR ANY OTHER ORGANIZATION

- A relaxed evening with refreshments, allowing attendees to meet and discuss potential collaborations and partnerships.

DAY TWO - WEDNESDAY 27, NOVEMBER 2024

DEEP DIVE SESSIONS AND CLOSING

8:30 AM - 9:00 AM NETWORKING

9:00 AM - 10:00 PM

PLENARY SESSION 4 – INSTITUTIONAL MARKET SESSION

- **Focus of the session:** An interactive session for industry stakeholders on building a robust institutional market system.
- **Panelists: The session to be facilitated by Chinedu Agbara will comprise the following:**
- Dr William Malafwal, Program Manager, Oxfam
- Dr Samson Afolabi, Research and Production Manager, Premier Seed Nig Ltd
- Dr Ebiarede Zidafamor, Director of Seed Coordination, National Agricultural Seed Council
- Prof. Bello Abubakar Zaki, Agricultural Research Council of Nigeria (ARCN)

10:00 AM - 11:00 AM

PLENARY SESSION 5 – BEST PRACTICES IN SEED QUALITY ASSURANCE AND PRODUCTION FOR VEGETATIVELY PROPAGATED CROPS AND UNDERUTILIZED CROPS

An interactive session for industry stakeholders on ensuring quality assurance and production of superior varieties of VPC and underutilized crops in Africa.

- The session will be preceded by a presentation by Peter Gildemacher (Managing Director SEPIA Netherlands), which will provide an overview of the challenges and opportunities of the seed potato sector in Nigeria.
- **Panelists: The session to be chaired by Prof Lateef Sanni ED NSPRI will comprise the following:**
- Dr. Ibrahim Mohammed Arab National Program Coordinator (NPC) ATASP-1
- Prof Morufat Balogun - PROSSIVA
- Dr Godwin Atser – Country Director SASAKAWA/BASICS II
- Dr Damian Njoku NRCRI Umudike

11:00 AM - 12:00 AM TEA/COFFEE BREAK & EXHIBITION TOUR

12:00 AM - 1:00 PM

PLENARY SESSION 6 – THE ROLE OF ELECTRONIC /DIGITAL EXTENSION SERVICES TO ENHANCE ADOPTION OF CERTIFIED SEEDS BY FARMERS

An interactive session focusing on how electronic/ digital extension services can enhance farmers' adoption of certified seeds to enable increased yield and profitability.

- **Panelists: The session to be chaired by Frank Ugbodaga will comprise the following:**
- Hadiza Yaro - Country Manager East West Seeds
- Prof Yusuf Ahmad Sani ED NAERLS
- Dr Anthony Job – Head Agronomy and Seed Development FMN PLC
- Mr. Timothy Azakere– Team Lead Foundation for Sustainable Smallholder Solutions

1:00 PM - 2:00 PM LUNCH AND NETWORKING

2:00 PM - 3:00 PM

CONNECTING THE DOTS- SEEDCONNECT SERIES PROGRESS AND UPDATE

- **Focus of the session:** This is an interactive session for industry stakeholders to explore the action points from previous editions of the SEEDCONNECT AFRICA CONFERENCE.
- **Presentation to be made by the convener of SEEDCONNECT – Dr Folarin Oikelola.**
- Dr. Olusegun Ojo, former DG NASC, will facilitate the session, which will feature testimonials on the impact of SEEDCONNECT by selected speakers from various organizations (AGRA, TASAI, CORAF, AFSTA, SEEDAN, etc).

3:00 PM - 4:00 PM

PLENARY DISCUSSIONS – COLLABORATIVE SOLUTIONS TO AFRICA'S SEED SECTOR CHALLENGES

- General group discussions, in which participants share insights, challenges, and ideas for collaborative solutions to boost the African seed industry.
- **Ms. Yewande Kazeem of Wandieville Media will facilitate the session.**

4:00 PM - 4:30 PM

CLOSING PLENARY DISCUSSION – BUILDING A SUSTAINABLE SEED INDUSTRY IN AFRICA

- The final general discussion, featuring all participants, will discuss long-term strategies to strengthen the industry.
- **The session will be facilitated by Dr. Yacouba Diallo (AFSTA Secretary General), who will be represented by Mr. Daniel Aghan, the AFSTA Communication Specialist,**
- Other panelists include- TBD.

4:30 PM - 5:00 PM

CLOSING CEREMONY AND PULLING OUT PARADE

- **Summary of Key Takeaways:** by the Lead Rapporteur.
- **Pulling out Parade for retired Directors/ Seed Industry Giants.**
- **Vote of Thanks: Director NASC**
- **Event Closing:** by the Permanent Secretary FMAFS.
- **Announcement of Next Year's Theme and Location**

5:00 PM - 6:00 PM

FAREWELL NETWORKING SESSION

- A final chance for attendees to network, exchange contact information, and discuss potential post-conference collaborations.

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Building a strong PVP system in Nigeria

CSP Topic: Plant Variety Protection

Key challenges addressed under this topic

- Institutionalization and operationalization of the PVP Act in Nigeria
- Development of the capacity of the PVP office and relevant stakeholders in Nigeria
- The need to develop and increase the awareness of the public towards Intellectual Property and Plant Breeders Rights in Nigeria.

Objectives of the CSP topic team:

- Raising awareness of stakeholders on PVP
- Operationalization and establishment of the Nigerian Plant Variety Protection (PVP) office
- Develop capacity on Distinctiveness, Uniformity and Stability (DUS) testing
- Develop the capacity of the NPVPO and relevant stakeholders on Plant Breeders Rights in Nigeria

Meet the team

CSP Topic team members

- Folarin Okelola, NPVPO/NASC
- Laura Piñán González, Naktuinbouw
- Arnab Gupta, WCDI
- Toyosi Job, Value Seeds Nig Limited
- Afolabi Samson, Premier Seeds Nig Limited
- Dotun Ogunniyan, IART
- Adams Olosunde, NACGRAB
- Bunmi Ibitoye, NIHORT
- Muyideen Oyekunle, IAR
- Chidozie Egesi, NRCRI
- Dr Umar Umar, ARCN

Additional key partners

- Naktuinbouw
- UPOV
- WIPO
- NARIs (IAR, IART, NCRI, NRCRI, ARCN, NIHORT, NACGRAB)
- Various seed companies
- Various universities



Participants observing a Tomato DUS plot during the training of participants on DUS field management and data collection



Establishment of the DUS field plots at the NASC HQ.



Participants observing a Maize DUS plot during the training on DUS field management and data collection



The Nigeria Plant Variety Protection staffs during a virtual training organized by Naktuinbouw on development of testing guidelines for the NPVPO



Two representative from the NPVPO visit the Naktuinbouw facility for a one-week internship on DUS testing and operationalization of the PVP office in Nigeria.

Key on-going activities

- **Development of the PVP Application System for the NPVPO** The PVP is currently in the beta stage of testing and would become fully operational by January 2024.
- **Secure the approval of the Presidency for the deposition of the instrument of accession to UPOV:** The NPVPO is currently in the process of securing the approval for the deposition of the instrument of accession from the presidency which would enable Nigeria to become a full member of UPOV.
- **SeedConnect Africa Conference & Exhibition:** The SeedConnect is an annual event organized by NASC, in collaboration with the private seed sector
- **Secure the approval of Plant Variety Protection Guidelines and Regulations from the Federal Ministry of Justice and the Federal Minister of Agriculture and Food Security:** The Guidelines and regulation for the PVP Act has already been developed and the office is currently in the process of securing its approval for use from the appropriate offices.

Key outcomes from activities under this topic:

- Establishment of the Nigeria Plant Variety Protection Office (NPVP)
- Conduct of 7 capacity building sessions and hand-on practical training for DUS technical staffs, plant breeders, researchers and other relevant stakeholders
- Development of the PVP application system.
- Development of the PVP regulations and guidelines

Key events during CSP under this topic

- Online training and backstopping to the PVP office staff: April, 2022
- Online training on DUS examination, testing. October, 2022
- Online Workshop on Quality Assurance System (audits): July & October, 2023
- Technical backstopping training for staffs of the NPVP at Naktuinbouw in the Netherlands: April, 2023
- Fundamental of developing Testing Guidelines for the Nigeria PVP Office: July 2023
- Two Days of Empowering Training for DUS Technicians and Field Assistants: Training of the development of DUS testing guidelines for the Nigeria Plant Variety Protection Office: September 2023
- DUS Field Management and Data Collection: October 2023

Our priorities for 2024

- PVP Summer School for undergraduates and postgraduate student in Nigeria
- Organize a series of capacity building trainings on DUS examination, testing and administration

FLOOR PLAN

EXHIBITION BOOTH (3X2m) FOR SEEDCONNECT 2024



Seed production and distribution in the world of digital science, precision agriculture and ailing economy

Samuel A. Olakojo*, Okelola Folarin, Oloruntoba O. Olakojo and Olisa Babafemi

Introduction

Agricultural practices in the 60s and 70s were labour intensive, human-energy demanded, error-prone, and, of minimal accuracy. But, in 1980s and 90s agricultural space was dominated by mechanization. Presently, use of artificial intelligence, computational science and ICT are taking over. The application of these technologies makes farming activities and seed production very fascinating in the western world



Introduction cont'd

Computer Applications Technology is the **study of the integrated components of a computer system** (hardware and software) and the practical techniques for their efficient use, and, application to solve everyday problem;

Solutions to problems are designed, managed and processed through end-user applications that are communicated using appropriate information and communication technologies (ICTs).



Methodology

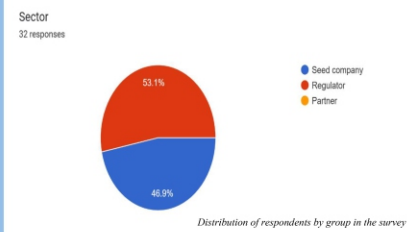
- A total of 32 people responded across representative of major seed companies, seed the regulatory agency, and development partners.
- The google form harvested information, cleaned it up and analyzed using simple descriptive statistics in graphical form for easy interpretation and reporting.

Results

S/N	Focus Crop	Area harvest(ha)	% area harvested to cereals, pulses and oils
1	Maize	6,205,340	21.0
2	Sorghum	5,931,100	21.0
3	Rice	4,321,130	16.0
4	Soybean	1,262,280	4.0
Total			62.0

The overall country score (out of 10) = 6.29
Total arable Land..... 36,872,000 ha
Population..... 238,842,743
Number of farming households 23,510,909
Contribution of agriculture to GDP 24.17%

Source: Seed sector performance index-2023



- Performance of Nigeria Seed system in Africa as at 2023 using evidence-base data.
- From the comparative analysis of Nigeria seed performance, against other African countries, Nigeria was placed at 6th Position.
- Although, the performance was not so bad, but if accurate information was captured using seed portal and reported as appropriate, Nigeria might be probably in a better position.

Source: Samiak Seeds, 2024

Advances in seed science



Molecular genetics had provided authentication of seed identity, quality, true-to-type and pedigree at the molecular levels.



Digital Image Science is now used to assess the genetic purity of crop genotypes by comparing them with the same materials in the hands of farmers to ascertain the level of purity or contamination. this will help the seed company to determine when to replenish their parental, foundation stock for enhance purity.



Software and apps now a days that permits multiple stakeholders in seed value chain that allows breeders, seed producers, farmers, marketers, and processors, to work together under what is described as citizen-base science.



Seed company can estimate the expected yield before harvesting for proper seed planning and distribution.

- Also, there are software and apps now a days that permits multiple stakeholders in seed value chain that allows breeders, seed producers, farmers, marketers, and processors, to work together under what is described as citizen-base science.
- The necessary metrics for each stakeholder is factored into it at the onset to promote high adoption, quick and easy evaluation, reduced time of release, in an holistic nature in Nigeria
- Although, many of the smart farming applications can be found in developed countries, there are also examples from developing countries.
- For example, Saito *et al.* (2015) developed a cloud-base decision-support tool to provide field-specific fertilizer recommendations to farmers in Senegal.
- Shruti Samadder and Deepak Rao (2023) were of the view that Information and Communication Technologies (ICT) has the potential to providing real-time information on weather, market price and crop management, to enable farmers make more informed decisions about crop increase and productivity.

Conclusion

It was observed that the feature of seed production and distribution system in Nigeria is bright and will transform agribusiness and bring forth the expected deliverables in no distant time.

Food and nutrition security will no doubt be guaranteed if seed production, distribution, and coordination of the stakeholders in the national seed system is very effective.

Production cost per unit area or operation will be reduced, time required will be reduced, efficiency will be higher, quality of seed produced will be high, feedback from relevant players will be robust and agricultural production and agribusiness will be profitable

Several authors have also identified with the efficiency and the efficacy of the use of ICT in transforming agriculture and by extension the Nigeria Seed System

It is therefore imperative of the national seed system and her stakeholders to adopt the use of the newly developed seed portal for the benefit of seed companies, farmers, regulatory agency and national and regional seed trade expansion, to revolutionize the Nigerian ailing economy.



Digital Science in this generation is rapidly transforming agriculture with high efficiency by precision, accuracy, speed, economic and result-oriented output



A lot of field activities are being carried out using robot, drones, mechatronic operated gadgets and electronically calibrated farm machines and implements using computer systems and software designed for specific functions.

References
Saito, K.; Diack S., Dierig L., N'diaye M.K (2005): On-farm testing of a nutrient management decision-support tool for rice in the Senegal River Valley. *Compt. Electron. Agric.* 116: 36-44.
Shruti Sammad and Deepak Rao (2023): Role and Importance of ICT in Agriculture Chapter 13 *In* Role and importance of ICT Agricultural Extension pp 201-214