



NaSARRI Newsletter

VOL 1, ISSUE 1 2025

DIRECTOR'S MESSAGE

By Dr. Kalule Okello David
Director of Research, NaSARRI



It is with great pride that I present the First Edition of the NaSARRI Newsletter, a platform designed to share updates on our ongoing research efforts, innovations, and milestones at the National Semi-Arid Resources Research Institute (NaSARRI), one of the institutes under the National Agricultural Research Organisation (NARO).

NaSARRI continues to play a vital role in addressing agricultural challenges in Uganda's semi-arid regions. Our dedicated scientists and research teams are at the forefront of developing technologies and solutions that support resilient and productive farming systems. Over the years, we have released a range of improved demanded crop varieties—groundnuts, sorghum, finger millet, cotton, sunflower, simsim, mungbean, cowpeas, and pearl millet—tailored to the needs of farmers in these challenging environments. Additionally, we have advanced livestock technologies, particularly in the area of animal traction, to enhance agricultural productivity.

This newsletter highlights our recent research activities, key events, and stakeholder engagements. It reflects our commitment to innovation, farmer empowerment, and sustainable development.

We thank all our partners and stakeholders for their continued support. Together, we shall continue to transform agriculture in the semi-arid regions of Uganda.

IN THIS ISSUE

1	NaSARRI releases three new Groundnut varieties	7	NaSARRI Receives New Advisory Committee
2	NaSARRI adopts Climate Smart Agriculture to revamp its livestock unit	8	OWC's Sylvia Owor visits NaSARRI, pledges support for Cotton sector
3	NaSARRI releases Uganda's First-ever Foxtail Millet Varieties	9	UFAAS-Uganda joins NaSARRI to promote agricultural technologies in Teso
4	NaSARRI, CIRAD to Collaborate in Cotton Research	10	Ocung Has No Regrets for Multiplying Seed For Nasarri
5	Farmers endorse new crop varieties under AVISA project	11	PROJECT in Pictorials
6	NARO receives funding from the Gates Foundation to develop sustainable pest control solutions		

Over the years, we have released a range of improved crop varieties—groundnuts, sorghum, finger millet, cotton, sunflower, Simsim, mungbean, cowpeas, and pearl millet—tailored to the needs of farmers in these challenging environments. Additionally, we have advanced livestock technologies, particularly in the area of animal traction, to enhance agricultural productivity.

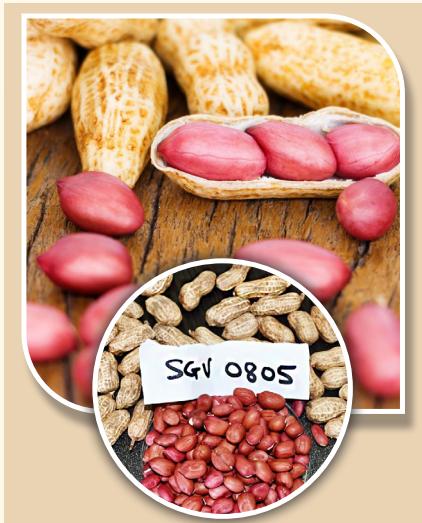
NaSARRI releases three new Groundnut varieties

Groundnut (*Arachis hypogaea* L.) is the second most important legume staple primarily by smallholder farmers in Uganda. It is cheap to produce given its high dependence on the two rainy seasons across the year.

As recent as 2019, groundnut was harvested from 3.20×10^5 ha, producing $\sim 1.60 \times 10^5$ Kg (FAO, 2019).

The 3 new groundnuts varieties were developed as result of identified need by the stakeholders (Farmers, Processors and consumers).

The Valencia botanicals (3-5 seeds per pods) are preferred for their aroma and high oil content used in peanut butter, condiment and confectionery. However, RedBeauty a 1968 release is now very low yielding and susceptible to drought, rosette virus and late leafspot diseases making it low yielding and unadaptable to the current climatic uncertainties.



The market demanded for a red skin Valencia to compliment the weaknesses of the RedBeauty. Research responded by developing and releasing Naronut 5R which



The Vice president Major (Retired) Jessica Alupo during the launch of the Newly released varieties at NaSARRI.

retained the good attributes of redbeauty but added earliness, high oil , Zinc and Iron with superior yield advantage.

easier to shell. NARO-NaSARRI yielded to this call by developing and releasing Naronut 4R which is easier to shell (soft shell) and harvest, Sweet, High yielding and drought tolerant.

To date, at least **29 varieties** of groundnuts have been released, **15** of which was bred by **Dr. Kalule Okello David FUNAS and Team**,which are significantly contributing to increased productivity, production, income, food and nutritional security

The market also demanded big red seeded dual purpose (confectionery and butter) the variety which are

The popular Erudurudu variety, a landrace tracing back to 1970s was now very susceptible to current major production stresses yet it is popular in Eastern and Northern Uganda.

NARO-NaSARRI responded by improving this landrace through judicious hybridization giving rise to Naronut 3R which are already being disseminated into the region.

These varieties were released in February, 2024 but officially launched during the 44th World Food Day celebration held at NaSARRI Serere. The varieties yield between 2.5- 3.7 tons per hectare, take 85-110 days to mature, yet are also resistant to rosette and leaf spots diseases. The varieties are drought tolerant

and have extra soft pods. They have higher contain higher nutritional content and excellent for paste (butter) and confectionery products with high fodder yields, among other characteristics.

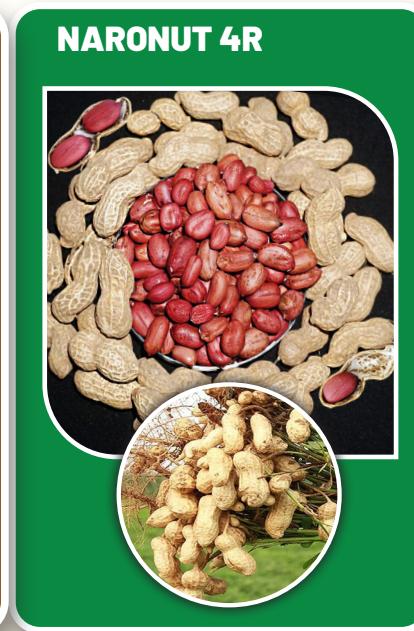
To date, at least 29 varieties of groundnuts have been released , 15 of which was bred by Dr. Kalule Okello David FUNAS and Team , which are significantly contributing to increased productivity, production, income, food and nutritional security



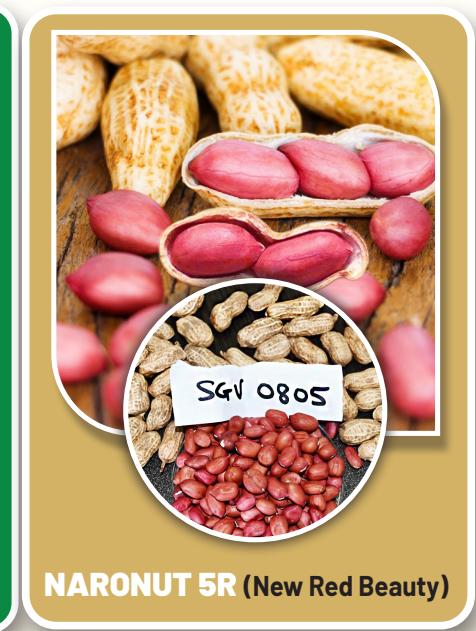
A groundnuts garden at NaSARRI, Serere



NARONUT 3R (New Erudu)



NARONUT 4R



NARONUT 5R (New Red Beauty)



The **3** new groundnuts varieties were developed as result of identified need by the stakeholders (Farmers, Processors and consumers).



A picture of the 3 newly released groundnuts varieties

NaSARRI adopts Climate Smart Agriculture to revamp its livestock Improvement Programme at NaSARRI Serere



A picture of some of the animals at the Livestock improvement program at NaSARRI

SERERE - In a multi-billion transformational journey, the National Semi - Arid Resources Research Institute - NaSARRI in Serere is set to revamp its livestock unit, through the Climate Smart Agriculture approach to enable the institute sustain the unit and empower communities engage in livestock farming.

Owing to the semi-arid conditions in Teso sub region, the institute opted for the climate smart approach, as a response to the extreme condition that affect animal rearing in the region.

The Institute will start the restocking with at least 200 heads of cattle of different breeds that do well in the semi-arid conditions for survival. The preferred breeds include the East African Zebu, which is commonly reared in the region with a high likelihood of doing well at the institute, the Zebu and Boran.

Dr. Babigumira Brian Martin, the Climate Smart Agriculture project lead, who is also charged with the responsibility to lead the revamp, says the Zebu breeds considered are duo purpose in the region, including beef, diary, traction and other uses, while the Boran would be predominantly for meat.

"The East African Zebu, the short horned vary in sizes, some are small while other are big, and the small Zebu weighing up to 90kgs, one thing is that poor management makes the animals so small, stunted, so we need to sensitize the people," he says.

Babigumira shares that the process has started with setting up infrastructures, while some of these were used in the past before the collapse of the unit, many of these are dilapidated and need renovation, while a few of them are condemned.

The Set up sits on at least 100 hectares, the livestock project will run with animals on a rotational system with thousands of paddocks for pasture and water utilization while bench-marking the climate smart approach to agriculture.

“

The East African Zebu, the short horned vary in sizes, some are small while other are big, and the small Zebu weighing up to 90kgs, one thing is that poor management makes the animals so small, stunted, so we need to sensitize the people" he says.

Multiple Investments

Besides investing in infrastructure, the institute will further invest in establishing pasture conduction systems on about 100 acres of land, where different grasses would be grown including legumes to maintain

the animals' production and supply to the communities.

Dr. Babigumira says they would set up storage facilities including silos, set up a water reservation system

with different distribution channels for the animals and irrigation, a main silo would be constructed for storage, while an overhead silo would also be raised for storage of food for swine and poultry.



An aerial view of the Livestock improvement program paddock.

Production and value addition

Dr. Babigumira reveals that unlike in the past, the institute would invest in production of livestock, but would as well go an extra mile to add value to the products from the stocks.

"We shall have a small diary unit to produce milk with value addition. We might have NARO yoghurt, NARO cheese and others, as we shall soon be running quality checks on the locally produced milk from the communities" he said.

"We shall train the farming communities hands on capacity building on value addition to their products, but we shall also construct a storage facility to increase the shelf life of their milk,"

The institute would invest in acquiring a medium size milk cooling system, which can take up to 3,000 litres of milk every week, which Dr

Babigumira envisages, groups of farmers adopting for business.

In the past, the Institute was running a meat processing unit, where animals would be fattened, slaughtered and meat packed and sold in the neighboring districts on Soroti, Kumi, Mbale, Lira ad well as inside Kenya, where the market had reportedly grown.

When asked why the project should prefer the local breeds, Dr. Babigumira said the local breeds have proven to resist the extreme condition in the region, fight off diseases and survive without water in the dry land.

"The Zebu has proven potential to grow well if managed well. So we shall develop husbandry practices for the farmers to be guided,"

**We shall train the
farming communities
hands on capacity
building on value
addition to their
products, but we
shall also construct
a storage facility to
increase the shelf
life of their milk**

In Uganda, the East African Zebu comprises at least 60% of the national herd and most are distributed along the cattle corridor,

in Teso and Karamoja sub region.

This contributed to high sustainability of the project,

environmental protection and climate smart approaches creating resilience.

Scaling down to communities

The decision to revamp the livestock unit is part of the government initiative to empower communities to lift their lives from absolute poverty using household incomes. The climate smart agriculture project will entirely target the communities, by establishing breeds that are economically viable to maintain, can stand the harsh conditions and have multiple benefits for the farmers.

This would call for full community involvement into the program from the initial stages. Dr. Babigumira says the project would use the local cattle in the communities to cross with the introduced breeds.

"We shall have to multiply good bulls to pass to the communities and improve their breeds, but also boost the Zebu herds," he said.

To scale the program down further, the implementers have a component of training farmers on proper husbandry, but will also provide

to the communities to help them boost their animals, but also survive during the droughts.

The communities would also be trained using the climate smart approaches of farming, to be able to sustainably conduct farming without gravely affecting the environment.

The Uganda Climate Smart Transformation Project by the Ministry of Agriculture, Animals Industry and Fisheries in collaboration with NARO and the Department of Meteorology, will involve raising about 200 heads of cattle, goats and sheep entirely on pasture to enhancing restocking the different parts of the country, starting with Teso and Karamoja sub region before spreading to the entire cattle corridor districts.

This involves using agricultural practices that sustainably increase productivity, enhance resilience to

climate change, reduce greenhouse gas emissions, and ensure food security.

In several other African countries, it integrates traditional knowledge with modern innovations to address the unique agricultural challenges



We shall have to multiply good bulls to pass to the communities and improve their breeds, but also boost the Zebu herds," he said.



A team of MAAIF taking a tour at the Livestock improvement program recently



NaSARRI releases Uganda's First-Ever Foxtail Millet Varieties

In a groundbreaking development for Uganda's agricultural landscape, the National Semi-Arid Resources Research Institute (NaSARRI) has officially released the country's first-ever Foxtail millet varieties. This major milestone was celebrated at the 46th Variety Release Meeting held at Kawanda, where three new varieties—one hybrid and two open-pollinated varieties—were introduced to the public.

The development of these innovative millet varieties was made possible through the generous funding from the Chinese government under the South-South Cooperation initiative. This collaboration, further strengthened by the support of the UN Food and Agriculture Organization (FAO), marks a significant advancement in dryland cereal research and development, with the goal of improving food security and livelihoods in Uganda.

This partnership has been key in delivering a solution that not only improves crop yields but also addresses nutrition challenges in dryland areas,"
Dr. Adikini stated.

Foxtail millet, known for its high nutritional value, is a game-changer for both smallholder farmers and the wider agricultural sector. Rich in protein and vitamin B12, it stands out as an essential crop for combating malnutrition due to its nutritional superiority containing high levels of iron, zinc and protein. Moreover, it boasts of an impressive growth rate,

maturing within 83 days—far quicker than other millet varieties which mature in 100 days and yields up to 2.5 tons per hectare.

Dr. Scovia Adikini, Programme Leader for Dryland Cereal Research and the Principal Investigator for the project, emphasized the importance of this international collaboration, noting that it plays a vital role in advancing agricultural research and development. "This partnership has been key in delivering a solution that not only improves crop yields but also addresses nutrition challenges in dryland areas," Dr. Adikini stated.

The release of these new Foxtail millet varieties is expected to make a significant impact on Uganda's agricultural productivity, providing farmers with a resilient, high-yielding crop that can thrive in challenging climates. This is a major step forward in the journey towards sustainable agriculture and food security in the region.



NaSARRI, CIRAD to Collaborate in Cotton Research

SERERE – After a long period of uncertainty, cotton production in Uganda may have an opportunity to be revamped and hit European market stalls.

This follows a collaborative visit by CIRAD to the National Semi-Arid Resources Research Institute (NaSARRI), which signifies the start of a shared effort to revamp the once vibrant cash crop

The Director of Research at the Institute Dr. Kalule Okello David FUNAS, who received the delegation from CIRAD enumerated the importance of this collaboration to the cotton production sector, as one that would revamp the local community economy and change lives of people.

"The Institute is accelerating work on cotton research to support the development and release of improved varieties," Dr. Okello said, adding that, "These new varieties will be high-yielding, drought-tolerant, and possess

desirable fiber characteristics such as high gin out turn and good fiber length."

CIRAD, a French agricultural research cooperation agency, is known for its commitment to sustainable development in tropical and Mediterranean regions.

The agency now looks for a start to a circular mission on cotton development in Eastern and Southern Africa. This is expected to start with enhancing research on the cash crop, germplasm exchange and capacity building for scientists.

With NaSARRI having its roots in cotton research since way back in 1922 under the colonial administration, cotton cultivation was started in 1894, but officially adopted as a cash crop in 1903

In Uganda, cotton research has had a number of challenges including lack of funding due to the government's dwindling support.



Dr Alexandria Bombom (extreme left) the program leader Cotton research program takes the CIRAD team on a tour to the cotton field trials.



CIRAD team in a group photo with the NaSARRI cotton research team

Farmers endorse new crop varieties under AVISA project

AVISA project was initiated to develop new technologies for dry land crops including finger millet, Sorghum, and ground nuts. The project has at least three aspects including conducting social economic activities, breeding and developing new varieties and streamlining the seed system which entails dissemination of the technologies like new breeds and improved varieties of the three crops.

Dr. Paul Anguria, a senior research officer and a crop agriculture and seed system scientist says the new varieties are developed with accompanying technologies including pest management, spacing, soil management which are all considered before disseminating the same to the farmers.

Dr. Anguria adds that these technologies are basically climate smart varieties with the capacity to withstand extreme conditions like prolonged drought, diseases among others.

He also adds that a farmer may also apply fertilizer to the garden, in case it is available, but notes that without the same, the variety can as well do well.

Mr Obuo Peter a Senior Technician at NaSARRI cautioned the participating farmers especially those involved in sorghum production, against striger weed. "Management of striger is very key. Please always ensure you uproot the weed, before it flowers, this reduces its chances to multiply," he told farmers while advising them on continuity.

He also revealed that some of the new seed varieties given can resist the effects of striger weed, although they call for better agronomic practices to maintain their production capacity.

The new varieties include three [3] technologies of ground nuts namely; Serenut 8 Red, Serenut 11 Tan, and Serenut 14 Red.

The new varieties for millet include; Serenut 2 and Naromit 2, while the new sorghum varieties include; Narosog 2 and SISO 1.

Following the successful innovations, the institute embarked on disseminating the seeds, to enable the farmers access them multiply and also disseminate to more smallholder farmers in the different communities.



Dr Paul Anguria (extreme right in maroon t-shirt) pauses for a photo with a farmer group in Masindi during a field day.



A farmer in Kasese pauses for a photo with high yielding finger millet varieties after a bumper harvest

The dissemination process was initiated in selected districts in Lango and Teso sub region before expanding to other parts in Buganda, Bunyoro and Tooro regions.

The farmers in Lango Sub Region appreciated the performance of the two varieties of Groundnuts, commending their resistance to drought as well as their early maturing abilities that enables them beat the drought

Farmers particularly appreciated SERINUT 8 variety for its oily nature that is important for commercial purposes.

"This variety is good for us making butter, it has good oil that our customers desire; it is also resistant to too much drought, you see it has survived in the bad weather," says a female farmer in Lango [district]

Another farmer in West Nile who planted both varieties of Ground Nuts call on other farmers to

adopt the new technologies due to the extreme climatic conditions including prolonged droughts.

"These new varieties are very good, resistant to bad conditions, although the shell is hard; yielding is very good even during too much sunshine," she says while giving her testimony.

Another farmer in Kabalore testified that the SERINUT 8 variety gave her a good number of pods, at least up to about 80%, resulting into good yields.

"The sweetness is also very good for consumers, it is the best; Even when we are harvesting, the pods come out well from the soil even during dry season," she testified.

A number of farmers in Tooro and Bunyoro regions testified that the two Groundnuts varieties are quite tasty, yield quite high, and often resistant to diseases.

Another farmer in Hoima testified that his harvest was much more than other farmers in the same region after he planted in non-straight lines while making his rows.

Although scientists did not confirm this, much as they commended the farmer's innovation while planting.

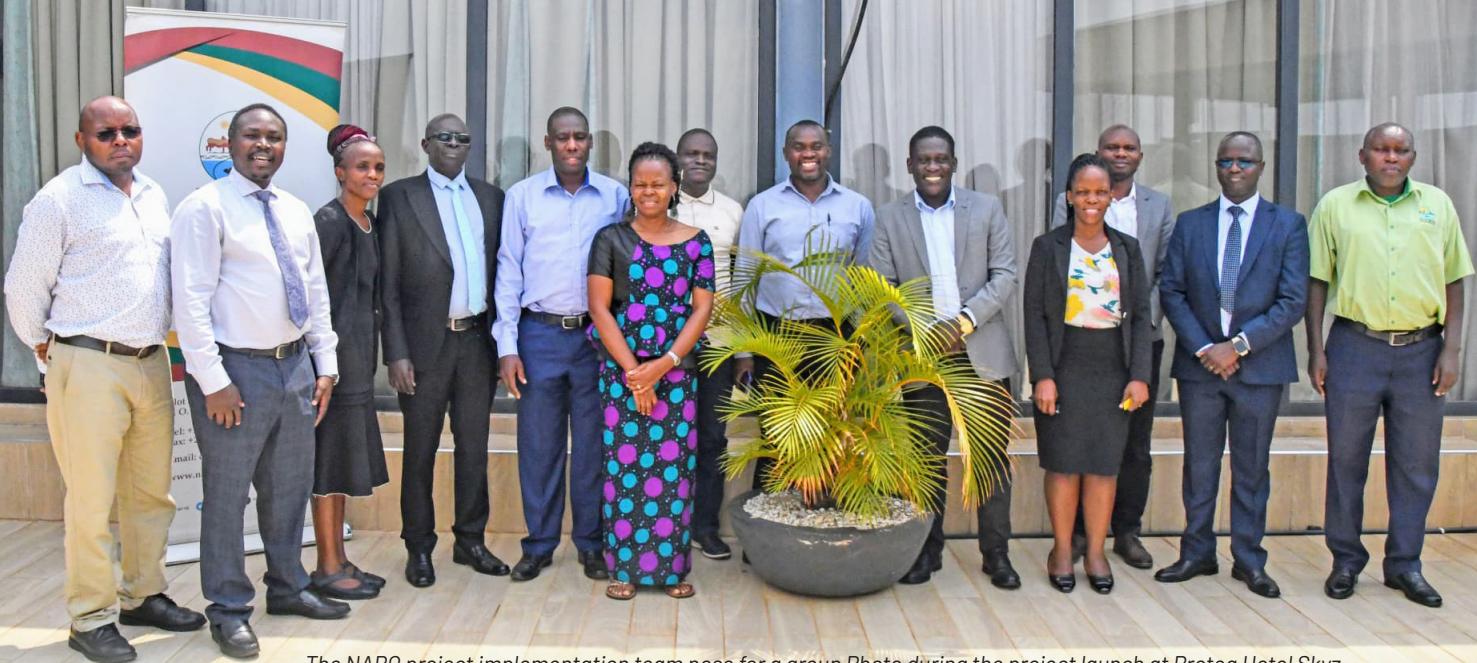
He also told the team that the varieties command a good market, due to their taste and hard shells, giving the ability to keep intact during packaging, transportation and off-loading.

The post harvesting process for Ground Nuts is always quite strenuous leading to losses due to crashing the produce.

The farmers in Bunyoro also appreciated new sorghum varieties introduced as good for making porridge.



Farmers in Kihonda Labong Sub-county Masindi district in a groundnut demonstration plot during a field day.



The NARO project implementation team pose for a group Photo during the project launch at Protea Hotel Skyz Naguru in Kampala

NARO receives funding from the Gates Foundation to develop sustainable pest control solutions

The NARO Microbial fungicide, insecticide and nematicide for African crops II project commenced in October 2024 and was officially launched in January 2025. The project aims to enhance farmers livelihoods in Sub Saharan Africa (SSA) by developing biocontrol options for important diseases and pests of major food crops in the region. Sub Saharan Africa is home to at least 33 million smallholder farmers whose contribution to food supply is estimated at 70 percent. Controlling major pests and diseases of important food crops such as sorghum, maize, banana, potato and sweet potato will therefore go a long way in achieving food security and improved livelihoods of farmers in SSA.

Accordingly, the project's target is the control of aflatoxins in maize, anthracnose in sorghum and black sigatoka in banana; the control of sweet potato weevils; and the control of nematodes in potato and sweet potato. The project will be implemented in four NARO institutes namely NaSARRI

(sorghum anthracnose), NARL (banana black sigatoka), NaLIRRI (aspergillus in maize) and NaCIRRI (potato and sweet potato cyst and root knot nematodes, and sweet potato weevils).

The four-year project, funded by the Gates Foundation, is a continuation of AgBiome's outstanding scientific work during the initial phase, where promising microbial strains were rigorously screened and prioritized for further testing and evaluation. In the current phase (phase 2) of the project, the focus will be on the evaluation of the prioritized strains from phase 1, under appropriate field conditions to select microbials with the best efficacy. The aim of phase 2 is to ensure the consistent performance of the strains under field conditions, and lower production costs to facilitate the scale-up of their production.

The project will leverage on NARO's expertise, infrastructure, achievement and research leadership in sub-Saharan Africa to steer the process of developing microbial solutions for smallholder farmers in Africa. The use of naturally occurring micro-organisms in the control of pests and diseases is anticipated to provide a sustainable and safer alternative to farmers, soils and the environment compared to synthetic pesticides.



Dr. Milton Otema, PI NARO Bio Microbials project during Project launch on 24th January 2025 at Protea Hotel Kampala Skyz, Naguru Hill in Kampala

NaSARRI Receives New Advisory Committee

The National Semi-Arid Resources Research Institute (NaSARRI) has welcomed a new Advisory Committee that will guide the institute in research and innovation for the next three years.

The four-member committee is chaired by Dr. Joseph Oryokot, a former Director of Research at the institute between 1999 and 2001.

Dr. Oryokot brings a wealth of experience and will provide technical guidance in technology development and dissemination. He previously worked as a World Senior Agricultural Specialist and written several high value project proposals including the Mult-Donor Trust Fund.

Other members of the committee include Mrs. Lucy Akareut Omait, who holds a Master of Science in Project Planning and Management from Cavendish University, a Postgraduate Certificate in Project Monitoring and Evaluation, and a Bachelor of Science in Agriculture from Uganda Martyrs University. She is the only member reappointed from the outgoing committee.

The other members include Dr. Cyprian Ebong, who holds a Ph.D. in Animal Nutrition, a former deputy Director General NARO in charge of Quality assurance and written several successful projects.

Also on the team is Dr Patrick Eyudu Equiano a highly experienced Vet officer who started his career at the Uganda Virus Institute and formerly worked at the Vet Officer for Karamoja.

The outgoing team was chaired by Mr. John Kilimbo Wakinya, alongside Mrs. Daisy Eresu and Mrs. Omait.

Dr. Kalule Okello David, in his welcoming remarks, expressed confidence in the new committee, stating that the Institute stands to benefit greatly from their broad technical and professional expertise.

The committee is mandated to represent the different stakeholders in identifying and articulating research priorities and opportunities, reviewing project proposals, evaluating research outputs, and ensuring that adopted technologies meet user needs.



The incoming Chairperson Advisory Committee Dr Joseph Oryokot (Left) gives a handshake to the outgoing chair Mr John Kilimbo Wakinya



Dr Kalule Okello the Director of Research NaSARRI handing over a certificate of appreciation and award to the outgoing Chairperson Advisory Committee Mr John Kilimbo Wakinya as the Senior Human Resource and Administration Officer Mr Mugoya Joshua looks on



The new Advisory Committee pose for a photo with the Director of Research (2nd right). from left to right, Dr Cyprian Ebong, Mrs Lucy Akareut Omait, Dr Joseph Oryokot and Dr Patrick Eyudu extreme right.



OWC's Sylvia Owor visits NaSARRI, pledges support for Cotton sector

SERERE - The Executive Director in charge of Operations at Operation Wealth Creation (OWC) Sylvia Owor has paid a courtesy visit to the National Semi-Arid Resources Research Institute (NaSARRI) in Serere.

Owor's was hosted to a strategic meeting with the team at the research station, with cotton research at the centre of the discussion.

Led by the Director for Research Dr Kalule Okello David - FUNAS, the cotton research team enumerated the importance of cotton as a cash crop, to Uganda's economic transformation.

Cotton is one of the key industrial crop in the country as it was categorized by government among the key C crops - Cotton-Coffee-Cocoa and key drivers for industrial development.

Highlighting her background in fashion design, Ms. Owor expressed a personal and professional interest in supporting cotton production and marketing.

"Cotton is the backbone of the fashion industry.

Strengthening its value chain is crucial not only for agriculture but also for creating jobs in manufacturing and design," she noted.

She was later taken on a guided tour of the institute's research and development facilities, including the experimental fields, ginnery, storage units, and laboratories.

She was flanked by officials from OMEGA Logistics, who also expressed interest in supporting logistics and supply chain needs within the cotton sector.

The visit comes at the heel of an appeal by the station, seeking partnerships with the private sector to support efforts to revitalize the cotton industry in areas of research, logistics and improving the entire supply and production chain.



Director OWC on a guided tour of cotton demonstration plots at NaSARRI



Researchers share ideas during tour of cotton fields at NaSARRI



A well-managed cotton field at NaSARRI. Flower and boll retention are key in achieving high cotton yields.

UFAAS-Uganda joins NaSARRI to promote agricultural technologies in Teso



SERERE - The Uganda Forum for Agricultural Advisory Services (UFAAS), under the African Forum for Agricultural Advisory Services (AFAAS) takes a significant step to bridge the gap between agricultural research and farmer application.

A team from UFAAS-Uganda, led by Dr. Richard Miiro, who is also the Board Chairperson, visited the National Semi-Arid Resources

Research Institute (NaSARRI) to explore collaborative opportunities for technology dissemination.

The strategic partnership aims to explore how innovative research technologies can reach the farmers, particularly in the Teso Sub-region.

Apparently, UFAAS is implementing the Global Programme for Small-scale Agro-ecology Producers

and Sustainable Food Systems Transformation (GP-SAEP) Project with over 5,000 farmers—more than 80% of whom are women and youth.

By tapping into NaSARRI's rich repository of agricultural technologies, UFAAS seeks to promote practices that are not only productive but also environmentally friendly and sustainable.

Promoting practical climate-smart innovations

Some of the technologies being considered for dissemination and scaling out include those that are climate smart, productive and by far sustainable and affordable. These include, but not limited to;

- Black Soldier Fly-based poultry feeding
- Improved pastures for livestock during dry spells
- Sustainable coffee and vegetable farming

- Integration of forestry into livestock and crop production systems
- Use of organic fertilizers such as chicken droppings and livestock dung to enhance soil fertility

These innovations are aligned with agro-ecological principles, promoting sustainable and climate-smart agricultural practices.

Dr. Brian Babigumira, a Research

Scientist at NaSARRI emphasized the importance of the ongoing relevant Climate Smart Agriculture project, pointing out that its structure and focus on specific commodities can support the broader goals of the collaboration.

Dr Hlami Ngwenya, the GPSAEP Project Coordinator at the Global Forum for Agricultural Advisory Services (GFRAS) said that UFAAS has a strong network of trained extension

workers and organized farmer groups that can be instrumental in scaling up NaSARRI's technologies.

"Leveraging UFAAS Structures for greater Impact is pertinent to scale out the technologies. These will change the lives of our farmers in

the region," he said.

Dr. Kalule from the Directorate of Agricultural Technology Promotion (DATP), says this partnership can be accelerated to achieve faster results on the ground.

UFAAS can leverage the extensive presence of the National Agricultural Research Organization (NARO) across Uganda to ensure widespread technology adoption and promotion.

A unified vision for agricultural transformation

UFAAS Focal person Ms. Beatrice Luzobe, stated that the visit was an important milestone to link with research to co-create solutions to farmers' challenges.

Dr. Rosemirta Birungi, the AFAAS Africa Technical Lead on Agricultural Extension appreciated the productive discussions and emphasized the need for stronger integration between research and extension services.

"If we are going to see real transformation in our agricultural sector, we must work together to connect research outputs with farmer realities," she stated.

The different players developed a shared commitment to amplify these efforts under a global framework for agricultural transformation, to reap the available potential to foster resilience among farming communities for sustainable food systems.



Dr Richard Miiro handing over information materials to Dr Kalule Okello David



If we are going to see real transformation in our agricultural sector, we must work together to connect research outputs with farmer realities,

- Dr. Rosemirta Birungi

Ocung a proud Local Seed Businessman (LSB) in Serere



Having had an Auntie who had in the earlier years worked at NaSARRI as causal labourer, but along the way had chance to be certified as seed multiplier, I rode on that to get recommendation from scientists who knew her,

- Ocung

Three kilometers east of National Semi Arid Research Resources Institute (NaSARRI) in Okulonyo village, Olio Sub County, Serere district lives Martin Ocung, a father of 5, in his late 30s. Ocung has NaSARRI to thank for the opportunity to multiply seed through which he has bettered his life.

From the harsh reality of virtually having nothing to his name, today, Ocung by all strides is one of the fairly wealthier natives in Okulonyo village.

Ocung who became an orphan at a tender age, did not have an opportunity to finish his Primary seven, before he dropped out, due to lack of school fees.

Ocung's fortune dates back to a time when her aunt was working at NaSARRI as a casual worker, who later recommended him to scientists at the research station for the task to multiply.

"Having had an Auntie who had in the earlier years worked at NaSARRI as causal labourer, but along the way had chance to be certified as seed multiplier, I rode on that to get



recommendation from scientists who knew her," he explains through an interpreter.

After committing to farming, several years later Ocung found a new lease of life in multiplying seed for NaSARRI.

Narrating to his story to this writer, with a mild smile across his face, Ocung says he started multiplication of seed using a 3acre family land in 2006, before he ventured into hiring land for every single season.

Today, Ocung the family man with 5 children and one wife owns over 30 acres of land, on which he still does seed multiplication.

With just one basin of newly released Serenut 3 ground nut seed, Ocung's dedication saw him multiply to 3 bags in 2 years.

Out of the three bags, Ocung retained one for further multiplication while the research station bought the remaining 2 bags at shs. 200,000 each.

"With Shs. 400,000 at my disposal, I was able to weed my gardens of groundnuts, I had set up after harvest, I was able to get 8 bags of groundnuts which earned me Shs. 2m in 2008," Ocung recalls.

Ocung shares that his seed multiplication venture in the area of groundnuts has since grown, with several other new varieties coming on board.



With Shs. 400,000 at my disposal, I was able to weed my gardens of groundnuts, I had set up after harvest, I was able to get 8 bags of groundnuts which earned me Shs. 2m in 2008,"

Ocung recall.

"Since 2014, I have been able to earn between Shs. 20m to 40m each year from seed multiplication especially from groundnuts," he adds.

The jovial groundnuts farmer recollects that his best moment in his multiplication journey was 2016-2017, when he was able to sale 56 bags of the groundnut seed at Shs. 400,000 each.

Besides acquiring three plots from groundnut proceeds, the Serere rural based farmer has been able to enroll his children to private schools, an achievement he says would not have been easy had it not to be for this opportunity.

Ocung adds that though circumstances deprived him from acquiring education, he is proud that the opening NaSARRI

provided would see his children go heights in education.

"In our family we don't have anyone with a degree but with the help from NaSARRI that long wait will pay off, a couple of years from now , because I am dedicating my energy to seeing that my children have a future," he states.

Ocung who also operates a retail shop in Okulonyo trading Centre, adds that when he realized that the multiplication venture was stable, he thought it wise to enroll his children to private schools for better performance.

The station later enlisted Ocung to multiply other crops like Cassava and Sorghum which are majorly used by the beer industry in Uganda.

With the financial empowerment that this engagement has earned

him, he has been able to also start a produce business bulking cereals and other legumes.

"In our family we don't have anyone with a degree but with the help from NaSARRI that long wait will pay off, a couple of years from now , because I am dedicating my energy to seeing that my children have a future," he states.

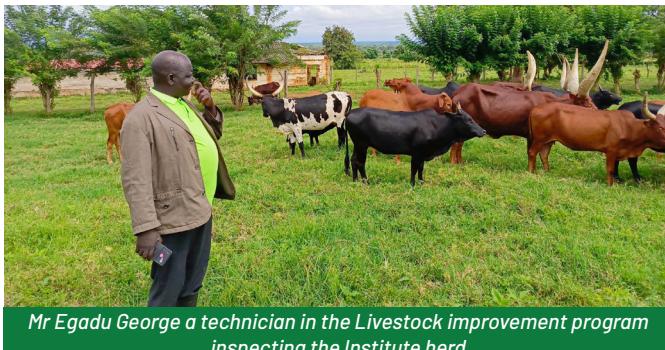


PROJECT in Pictorials





Dr Henry Nakale (Commissioner Agricultural Extension Services MAAIF), interacts with students who routinely come for learning visits



Mr Egadu George a technician in the Livestock improvement program inspecting the Institute herd



Mature Greengram before being harvested



Mr Kokas explaining to visitors groundnuts varieties at the demonstration gardens



A mature Finger millet head



Mr Richard, a research associate admiring a high yielding sorghum line



Flowering Simsim in the field