NaCRRI August 2017 Bulletin

UBIC Awards winners of Biotech essay writing and poster drawing competition during the 2017 School Farm Camp at Gayaza High School

In a grand ceremony, Uganda Biosciences Information Center (UBIC) awarded the top performers in its flagship activity - the Annual National Biotechnology Essay writing Contest. The awards ceremony was organized as the climax event of an annual national schools' farm camp that brings together secondary schools nationwide to showcase various agricultural best practices and innovations at Gayaza High School in central Uganda. In addition to the essay contest, UBIC recognized winners of its second edition of the National Primary Schools Poster drawing contest organized since 2016.

Themed 'Biotechnology for climate smart agriculture' and 'Best ways to improve agriculture in Uganda' for the essay and poster contests, respectively, the exercise attracted over 1000 participants from institutions of primary, secondary and tertiary institutions countrywide. The theme was chosen to inspire the country's youthful populace in face of climate change challenges and their implications for agriculture.

While addressing participants at the event, Dr. Yona Baguma, NARO Deputy Director General, Research Coordination cautioned that is important for agricultural skills to be inculcated in school children at an early stage because agriculture is the backbone for socio-economic transformation in the country

The State Minister for Primary Education, Hon. Rosemary Seninde commended the organizing Institutions for complementing Government efforts to involve the youth in agriculture emphasizing that it is the mainstay of Uganda's development. She further revealed that the Ministry of Education has put in a lot of effort in ensuring that science and technology gets attention.

During the Farm Camp, experts from NaCRRI trained students but also shared and showcased critical knowledge and skills for bridging the gaps along the agricultural value chain. Major technologies on show included high value horticultural crops, value addition technologies and drought tolerant maize varieties recently released to buffer farmers against losses due to drought.
The Camp was organized by Gayaza High School in partnership with AVSI Foundation, Food and Agriculture Organization, NaCRRI and UBIC from 25 to 31 August 2017.

Joint site visits by WEMA Product Development Team conducted in testing sites in Uganda

Members of the Product Development Team in the Water Efficient Maize for Africa (WEMA) Project from six countries and partner Organizations were in Uganda from 14th -19th August 2017 to conduct joint site visits and peer-review breeding activities of WEMA-Uganda breeding and product development pipelines for drought-tolerant and insect-protected maize.

The participants also took part in selection of advanced drought tolerant hybrids in national performance trials established at Bulindi, Ngetta ZARDI and NaSARRI, Serere. The team also pre-reviewed WEMA deployment activities on seed production by Deployment Team and Seed Companies marketing DroughtTEGO brands in Masindi and Lira.

This PDT tour is an annual review and appraisal exercise rotated in participating countries and the team comprised 25 members from Kenya, Tanzania, Ethiopia, Mozambique, and South Africa, members from partners including CIMMYT, AATF, and Monsanto.

The Team was impressed by progress made by the WEMA Uganda PDT in filling the breeding and product pipeline lines with good materials. The WEMA Project Manager, Dr. Sylvester Oikeh recommended need to fast tract some of promising hybrids combining drought and other stresses such as MLN and Insect resistance.

The WEMA partnership was formed in response to a growing call by African farmers, leaders, and scientists to address the effects of drought and insect-pest pressure in a cost effective way for smallholder farmers in Africa. The long-term goal is to deploy drought tolerant and insect protected maize to smallholder farmers royalty-free through local African seed companies. In Uganda, already 10 DroughtTEGO hybrids have been released and are in commercial production by various private seed companies

Bean research team and partners increase awareness on nutritious bean building on official Presidential Launch of high iron and zinc varieties

Bean research team and partners have intensified awareness together with the media in promotion and scale up of high iron and zinc beans varieties recently released. varieties This follows the official launch of the nutritious bean varieties (NAROBEAN 1, 2, 3, 4C and 5C) by H.E President Yoweri Museveni on 18th July 2017 during the Agricultural Show in Jinja.

In a press briefing held at the institute, the media was informed that over 280,000 farming households in Uganda in 13 districts of Kamuli, Kibale, Kabaale, Masindi, Kanungu, Isingiro, Gulu, Oyam, Lira, Mukono, Masaka, Rakai and Kamwenge have already been reached with high nutritious beans.

According to Dr. Nkalubo Stanley, the Programme Leader, Legumes research team at the Institute, the beans contain significant levels of micronutrients-iron and zinc that can be delivered cheaply to address issue of hidden hunger caused by nutrient deficiency.

“The bush beans contain iron levels of between 65 - 69 parts per million (pmm) and zinc at 31- 38 pmm, while the climbers contain iron of up to 77 - 80 pmm and zinc of 32 - 34 pmm. The required amount of zinc by children is 13.7 micro grammes per day while adults require 17-19 micro grammes per day,” explains Nkalubo.

The beans are specially targeted at addressing the worrying trends in the prevalence of anemia: in 2011 the prevalence of anemia had dropped to 49% from 73% in 2006. In 2016 however, anemia prevalence increased to 53% up by 4% from the preceding 2011 UDHS report. This implies that one in every two children in Uganda is anemic.

“So it is crucial that we have consumed beans with a higher concentration of both nutrients so that when consumed in smaller amounts, one will still get the required amounts in the body,” emphasized Dr. Titus Alicai, while representing the Director at the event.

Seed agro-dealers; CEDO and Pearl Seeds have been engaged to further scale out and multiply the beans so as to make them available to vulnerable households country-wide.

Paul Mwambu of the Ministry of Agriculture, Animal Industry and Fisheries, also revealed that the promotion of nutritious beans was integrated into the Uganda Nutrition Action Plan and the Anemia Prevention and Control Strategy. “These efforts will work to scale up more nutritious crops countrywide, thus addressing the deficiencies in a cost effective and sustainable manner,” said Sylvia Magezi, Country Director, and HarvestPlus.

NaCRRI launches Namulonge community outreach program

NaCRRI launched a community outreach program in which staff engaged farmers in the vicinity of the Institute to complement other dissemination activities in a bid to boast adoption of various improved technologies developed at the Institute.

On 20th August 2017, NaCRRI staff hosted Service at the Namulonge Church of Uganda Parish in Wakiso District bringing together over 80 members of the Anglican Church. The event marked the launch of an outreach program to be rolled-out to all major religious denominations in the Institute's periphery. The plan is to create public awareness and mobilize demand for NaCRRI's technologies.

Reverend Patrick Muyanja, the Parish Priest lauded NaCRRI for reaching out to the Anglican community noting that this should mark the beginning of a new era of the relationship between the farmers and research.

While addressing participants, Dr. Yonah Baguma, NARO Director General-Research Coordination challenged the community on their reluctance to utilize commodities developed at NaCRRI yet have great potential to deliver them out of poverty. "People from far and outside Uganda have realized the how useful these crops are and many have used them to develop". He said. Dr. Baguma also urged them to create cooperatives which would strengthen their capability to enable them benefit from Government resources targeting organized farmers.

Dr. Godfrey Asea, the Director NaCRRI remarke
that it is odd to see poor gardens surrounding a
Institution of agricultural research like NaCRRI. "
our proximity, one would expect to flourishin
agriculture. You should the first beneficiaries so th
you seem to utilize the knowledge and products bre
from your backyard," he noted.

Further to interacting with the participants, th
Institute distributed cassava, maize and amaran
seed for planting in the Planting Season 2017
along with other assorted church logistics.

The cassava (NAROCASS1) is high-yieldin
resistant to Cassava Mosaic Disease and tolerant
Cassava Brown Streak Disease while the maiz
(WE 2115) is drought tolerant with a yield potential
7-9tons under good conditions. Meanwhile, th
amaranth offers high nutrition potentials containi
minerals such as amino acids, calcium, iron, an
magnesium; key in fighting hidden hunger. Farme
were further sensitized on good crop manageme
practices. This was meant to stimulate interest

Institute to benefit from Multi-billion piped water system by Wakiso District Local Government

This August, the Ministry of Water and the National Water and Sewerage Corporation launched a nucleus of a 9.5b piped water supply system to be hosted at the Institute.

The project funded by the African Development Bank will supply water to over 40,000 people, benefiting the villages of; Nagamba, Kyambogo, Kasambya, Namulomge, Buso, Busukuma, Balita, Kanyogoga, Kiwenda and Nabitalo, in Busukuma Sub-county, Wakiso District.

The project will have a transmission pipeline of 6k
a distribution main of 32km, two collection reserv
tanks, a treatment house, an office block and a gua
-house. It will also include 600 promotion
connections, 10 public stand posts and two pub
toilets.

Meanwhile, since NaCRRI's initiation in 1947, its la
totaling to 2202.52 acres was dedicated to resear
and over the years, Government of Uganda throu
NARO has heavily invested in development of t
state-of-the-art research infrastructure at the Institu
occupying a significant space of the land. This land
maximally under use for research and se
production activities to support adequate seed qual
and quantity by private seed producers in the count

JICA President visits institute demonstration and training activities in refugee camp in Adjumani under the PRiDe Project.

The President of Japan International Cooperation Agency-JAPAN, Dr. Shinichi Kitaoka on 24th August 2017 visited Adjumani, West Nile Region where JICA funded PRiDe Project and the United Nations High Commission for Refugees (UNHCR) are empowering refugees and host communities in rice production skills.

During the visit, Dr. Kitaoka interacted with PRiDe Project expert, Director of National Crops Resources Research Institute (NaCRRI), members of the local government of Uganda in Adjumani including LC5 Chairman and officials from UNHCR on the collaboration in various fields towards the refuge crisis in Uganda. He visited Mirieyi settlement and the farmer field school which was set-up for refugees and their host community.

The collaboration between JICA and UNHCR dates four years back in 2014. They agreed to work hand in hand to assist and relieve the government of Uganda of the burden of the increasing number of refugees in the country. One of the activities is training of Refugees and their host community on improved rice cultivation technology to increase food production in refuge settlements.

Dr. Godfrey Asea, Director NaCRRI gave a background of PRiDe Project and explained the current and planned activities towards refugees and rice farmers in Uganda. Since 2011, PRiDe has been building capacity by conducting Training of Trainers (TOTs), Training of Farmers (TOF) in 58 districts including refugee hosts. He stressed that, “At the beginning of this year 2017, the project established demo-sites (farmer field schools) to ensure adaptation of improved technologies and improve productivity among rice farmers.”

Further, the Project Chief Advisor, Mr. Yoshino Minoru demonstrated some of the techniques practiced in upland rice cultivation. Upland cultivation is largely practiced by farmers in Uganda due to the climate and nature of environment. Only farmers close to wetlands (swamps and lakes) practice lowland rice cultivation. Mr. Yoshino involved the President in the field practice of line planting of NERICA 4 rice variety during a farmer training that was on going at the farmer demonstration field.

While addressing the gathering, Dr. Kitaoka was impressed with the oneness between refugees and their hosts and urged them to continue working together to improve their livelihood. He said that Japan is one of the top rice growing nations in the whole world and it has developed a lot of technologies. “It is in our best interest to share the knowledge to assist farmers around the world to increase food production in communities.” He emphasized.

Officers from UNHCR expressed their appreciation towards the visit of JICA President to Adjumani, among all places and

	pledged to improve on the collaboration and continuously seek assistance from JICA to support refugees in Uganda.

Upcoming events and opportunities

1. Agribusiness Congress Nov 29- Dec 2 2017
2. NARO Quarter review and planning Oct- 24th
3. Excellence in Breeding workshop organized by CIMMYT in Munyonyo Hotel, Kampala, Uganda - Nov 8-10
4. Youth in Agriculture for Development"– Tuesday 17th Oct 2017 – Golf Course Hotel, Kampala