



KEPHIS NEWS

A Kenya Plant Health Inspectorate Service(KEPHIS)Newsletter

www.kephis.org

KEPHIS IN COLLABORATION WITH POTATO BREEDERS RELEASES 52 NEW POTATO VARIETIES

Kitale, Trans Nzoia County -Trans Nzoia County is known as Kenya's bread basket, growing predominantly maize, Kenya's staple food. However, maize production in the area and in other counties has faced the challenges of pests and disease, significantly reducing the quantities of maize produced. Top of mind is the fall army worm, a pest that has ravaged maize in many counties and the Maize Lethal Necrosis Disease.

It is against this background that KEPHIS and potato breeders are promoting the production of potato to increase Kenya's food availability.

From 2013, KEPHIS in collaboration with local and international breeders has released 52 potato varieties. These include Ambition, Lady Amarilla, Derby, Markies, Sagitta, Saviola, Musica, Royal, Jelly, El Mundo, Faluka, Challenger, Evora, Panamera, Rodeo, Sifra, Voyager, Unica, Konjo, Carolus, Zafira, Milva, Connect, Sarpo Mira, Mayan Gold, among others. However, Shangji, also known as the 'farmers' potato' controls about 70% of the market.



Susan Mureithi, a potato breeder (front, 2nd right) explains to Agriculture CS Willy Bett (holding potatoes) the process of potato multiplication. This was during the Potato Awareness Field Day at KEPHIS Kitale regional office. KEPHIS MD Dr. Esther Kimani(left) and other stakeholders look on

Inside this issue

- KEPHIS in collaboration with potato breeders releases 52 potato varieties.....1
- Nakuru County Farmers urged to use certified seeds.....3
- Nursery operators trained on nursery management and certification.....4
- KEPHIS trains importers on the Plant Import and Quarantine Regulatory system (PIQRS).....4
- KEPHIS offers internship opportunities to students.....6
- KEPHIS participates at the 2017 Kisumu ASK show.....6
- KEPHIS empowers Nyatike farmers on Good Agricultural Practices for enhanced agricultural production.....8
- Importing plants, plant products and regulated articles into Kenya safely.....11



Some potato varieties on display during the potato awareness field day at KEPHIS Kitale regional office

chips and crisps. This in essence means that these hotels and restaurants do not have to import potato; business people can multiply the released varieties. The released varieties are resistant to diseases other than bacterial Wilt and have also created the need for elevated technologies. For instance, using machines for planting, harvesting and development of cold storage facilities. **KN**

The top potato producing counties in Kenya are Nyandarua, Meru, Nyeri, Kiambu, Taita Taveta, Nakuru, Narok, Bomet, Elgeyo Marakwet, Trans Nzoia, Bungoma, Uasin Gishu and West Pokot; other potato producing counties are Kisii, Nyamira, Kirinyaga, Murang'a, Baringo, Nandi, Laikipia and Kericho. Upcoming potential potato producing counties include Machakos, Makueni, Embu, ajiado, Tharaka Nithi, Samburu, Kwale and Nairobi. Farmers harvest 60-80 bags of 110 kilograms per acre while small holder farmers harvest 30-50 bags of 110 kilograms per acre; this against a potential production of 150 bags per hectare for a 110 kilogram bag.

Kenya's population currently stands at about 48.3 million with a growth rate of 2.6% per annum. The population is estimated to reach 65 million in 2030 and by 2060, we shall be close to 100 million. With this population, maize cannot meet the food demand. Conversely, potato is a short cycle crop, highly productive in terms of area, time and moisture. Since maize takes longer to mature, potato can tie over as food to the population. Due to diminishing land sizes and diseases, potato production is moving to the North Rift where pockets of extensive land still exist. These lands have been under cereals and hence there is less presence of potato diseases. Hence the reason the field day was held in Kitale, Trans Nzoia County.

Kenya's middle class is growing and have disposable incomes to spend. A lot of that money goes towards buying chips or French fries. International hotel chains and restaurants have set shop in the country and have quality standards to adhere to, hence need suitable potato varieties to produce their food. The released varieties meet some of these quality standards; there are also table varieties for



Agriculture CS Willy Bett (centre) with KEPHIS MD Dr Esther Kimani (3rd left) speaking to Mr. Kibet of Kisima Farm during the potato awareness field day held at KEPHIS Kitale regional offices



Members of the public sample chips from various potato varieties during the potato awareness field day at KEPHIS Kitale regional office

NAKURU COUNTY FARMERS URGED TO USE CERTIFIED SEEDS

Naivasha, Nakuru County - Farmers in Naivasha participated in the 14th annual Naivasha Horticultural Fair, an event that brings together exhibitors from Kenya, Africa and other parts of the world. The Fair showcases products and services from various industries and institutions among them the horticultural

and farmer advisory services.

The farmers were guided on ways of identifying certified seeds and encouraged to use them for better yields. However, some farmers raised concerns on inaccessibility of certified seed potatoes in some potato growing areas.

Visitors interested in becoming exporters were also taken through the requirements for plant exports

with KEPHIS emphasizing that international markets have stringent requirements and exporters of fresh produce should adhere to the set standards to ensure sustainable market access.

Farmers were further advised on mitigating against the Fall Army Worm threat on maize production by using the best pest management practices. Finally, KEPHIS inspectors urged farmers to adopt alternative foods such as sweet potatoes and cassava and adopt the use of virus cleaned planting materials.

KN



industry, car manufactures, accessories, financial institutions and regulators.

The Fair, which took place at the Naivasha Sports Club, uses proceeds from sales to support charities within and outside Naivasha as well as other national projects. KEPHIS took part in the event as a regulator in the agriculture sector and at least 300 farmers were taken through the Corporation's activities which included seed certification, analytical services, pest diagnosis



Visitors looking at the materials displayed by KEPHIS at the exhibition

NURSERY OPERATORS TRAINED ON NURSERY MANAGEMENT AND CERTIFICATION PROCEDURES

Seventeen private commercial nursery operators from different counties received training on nursery management and certification procedures. The 2 day course that was organized by the Analytical Chemistry Laboratory in conjunction with the Centre of Phytosanitary Excellence (COPE), aims at improving agricultural produce quality and quantity by training nursery operators on registration of nurseries, procedures for nurseries certification, export procedures for nursery materials, common pests of nurseries and tissue culture nursery production.

External resource personnel were also at the forum to facilitate the training which entailed presentations and a field visit to the Jomo Kenyatta University of Agriculture and Technology (JKUAT) Nurseries.

KEPHIS TRAINS IMPORTERS ON THE PLANT IMPORT AND QUARANTINE REGULATORY SYSTEM (PIQRS)



Officer in Charge of the Embu Regional office Mr. Jacob Cheptaiwa (4th right) with trainees of the Plant Import and Quarantine Regulatory (PIQRS) System in Marsabit. The System was developed by KEPHIS and stakeholders to regulate the imports of plants and plant materials into Kenya

Marsabit County - Agricultural importers in Marsabit County have been trained on how to use the Plant Import and Quarantine Regulatory System (PIQRS), to enhance trade and investment in the region. Other groups trained included clearing agents, county officials and customs and border management officials.

The PIQRS was launched in 2015 and has been in use by KEPHIS clients for processing and issuance of Plant Import Permits as well as clearance of imported plant material. Participants were taught how PIQRS addresses the presence of foreign pests, the ease of doing business by providing an IT solution, how PIQRS reduces fraud and categorizing of imports

as quarantine, prohibited or permitted. The training session in Marsabit on the Plant Import Quarantine and Regulatory System

The modules of the training offered included maintenance of client details, agents, exporters and import permit application, facility applications, evaluation applications, consignment inspection and Unique Consignment Reference (UCR).

The training served as a channel through which complaints and challenges that traders have had with KEPHIS and other government agencies would be shared and resolved. **KN**



The training session in Marsabit on the Plant Import Quarantine and Regulatory System

KEPHIS OFFERS INTERNSHIP OPPORTUNITIES TO STUDENTS

Besides implementing the KEPHIS Mandate of Protecting Kenya's Agriculture, internship and attachment opportunities are also offered to university students and graduates thus furnishing them with the necessary knowledge on phytosanitary inspections, seed certification and analysis of agricultural inputs for food security and national growth. This induction is 'learning by doing', consequently, enhancing students intellectual competence and giving them an exposure to learn the dynamics in the agriculture sector. The internship opportunities are available at KEPHIS offices countrywide. The students learn from staff and go out to the field for practical experience. **KN**



Students on internship at the Embu Regional Office inspecting plants in a greenhouse and in the field



KEPHIS PARTICIPATES AT THE 2017 KISUMU ASK SHOW

Kisumu - KEPHIS is committed to ensuring stakeholders' alliances and partnerships by enhancing synergies through information and resource sharing by stakeholders and partners. This is done by establishing communication channels

and tools through field days, shows and media as envisaged in the KEPHIS Strategic Plan.

KEPHIS Kisumu Regional Office participated in the 2017 Kisumu Agricultural Society of Kenya show that took place at the Mambo Leo Showgrounds. The theme of the show was ***"Promoting Innovation and Technology in Agriculture and Trade"***.

The event was officially opened by the Cabinet Secretary, Ministry of Agriculture, Livestock and Fisheries Mr. Willy Bett who was accompanied by the County Executive for Agriculture, Hon. Henry Obade, MD KEPHIS Dr Esther Kimani and board member Ms. Teresia Muchira. Governor Jack Ranguma in his remarks stated that technology in agriculture is key to unlocking the vibrant economic growth in the county. He also thanked the participants for considering the Kisumu ASK agricultural show as a venue to showcase their technologies. He emphasized that agriculture is the main key pillar of the country's economy and urged the stakeholders to work together for the attainment of food sufficiency. He brought to the attention of the stakeholders and farmers that the Kisumu

Airport Cargo Centre which is under construction is an opportunity to explore export trade in the region. He also pointed out that modern technology should be adopted to increase production in various sectors such as textiles. "I also urge research institutions to partner and come up with high yielding crops that are resistant to diseases and are also drought tolerant", he added.

Mr. Obade visited the KEPHIS stand and was taken through the services offered to farmers in line with the Corporation's mandate.



Kisumu County Executive for Agriculture Mr. Henry Obade being shown how to identify certified seed through the seed sticker label by KEPHIS officer MS Beatrice Odhiambo

He was shown the challenges that farmers face and the services that KEPHIS offers to counter the challenges, which include poor soils, fake seeds, poor quality produce, fake fertilizers as well as pests

and diseases. The services to counter this included seed certification, analytical chemistry laboratory services such as soil and water analysis, fertilizer analysis, pathogen elimination through

tissue culture, nursery inspection and certification and phytosanitary inspection of agricultural

produce. He was also introduced to the Seed Sticker Labels, a technology initiative between KEPHIS and the seed industry that would help farmers to determine whether the seeds they purchase are certified or not by simply scratching the label and texting the revealed numbers to 1393 for feedback.

KN



The KEPHIS Stand at the Kisumu Show at Mambo Leo Show grounds

KEPHIS EMPOWERS NYATIKE FARMERS ON GOOD AGRICULTURAL PRACTICES FOR ENHANCED AGRICULTURAL PRODUCTION

Sito Valley, Nyatike - In line with the KEPHIS mission of providing a science based regulatory service by assuring quality of agricultural inputs and produce to promote food security and sustainable development, the Organization visited Sito Valley in Nyatike Constituency with the aim of understanding the area in terms of ecological conditions supporting agricultural productivity, the horticultural crops that can be promoted for food, nutrition security and as well as the potential for seed production.

The name 'Sito' is from the Dholuo corruption of the English word "store". Sito Valley is indeed a food store in the county and beyond. Many crops are grown in the valley including bananas, sugarcane, maize, beans, kales, watermelons, groundnuts, mangoes and seed-cane (sugarcane). These are supplied to markets within and beyond the county. Crops can be grown in the valley throughout the year with irrigation done from the permanent streams that flow through it.

KEPHIS in collaboration with other departments and parastatals in the Ministry of Agriculture, Livestock and Fisheries, the county government of Migori and other stakeholders organized a

3-day farmers training and field day at Riat Market whose objective was to address challenges faced by growers in the valley and its environs and raise awareness on good agricultural practices, crop production, pest management, milk production, handling and value addition. In turn this would lay the foundation that would support small scale farmers in the county access markets, improve food and nutrition security, hence their incomes and standards of living.

At least 400 farmers attended the events.

FIELD DAY

The Cabinet Secretary, Ministry of Agriculture, Livestock and Fisheries Mr Willy Bett was the chief guest and toured various areas in Nyatike. These included:

- Opening of the Sisal factory
- Touring Sori beach to address fish farming concerns
- Touring St. Joseph Alendo Girls' Secondary School, Okayo Secondary School and Obware Secondary School
- Opening of a police post at Riat Market and finally viewing exhibits and addressing a farmers baraza at Riat Market.

In his speech, the CS urged the farmers to use the knowledge and awareness created during the training to improve food production and exploit the opportunities identified.

He also took the opportunity to launch the Cassava Project which aims at increasing the production of the tuber as a food security crop. He also presented certificates of participation to farmers who had attended the training. In addition, the participating farmers were given knapsack sprayers and 500 litres of insecticides to control the Fall Army Worm.





Mr. Willy Bett at various schools during the Sio Valley farmers training and field day





Agriculture Cabinet Secretary, Mr. Willy Bett, KEPHIS MD Dr. Esther Kimani, farmers and other officials at Riat Market during the field day

Farmers receiving knapsack sprayers from the Cabinet Secretary, Ministry of Agriculture, Livestock and Fisheries, Mr. Willy Bett



Proud owners of Knapsack sprayers and pesticides for control of Fall Army Worm

IMPORTING PLANTS, PLANT PRODUCTS AND REGULATED ARTICLES INTO KENYA SAFELY

Agribusiness has increasingly become a preferred business venture especially in food and horticultural products due to global demand for food across continents. Trade in plants, plant products and regulated materials such as soil, fertilizer, manure, bio-fertilizers and others has grown to become significant contributors to global the economy. These items move across borders in the form of food, commercial merchandise, industrial raw materials, research material or genetic exchange. Modern day transport systems and movement of people has made it easy to transport plants and plant products across the globe in a few hours.

As regional and global trade in plants and plant products increases, so does the risk of introducing exotic injurious plant pests and invasive weeds in a country increase. The sad story is that once a pest finds a conducive environment, it gets established and spreads quickly more so, where there are no natural enemies to control its population. Efforts to stop pest spread, or eradicate it, often costs huge amounts of resources. If left uncontrolled, the injurious plant pests could lead to mega economic losses, food deficits and in many cases contribute to food insecurity. Some notable incidences of pests and weeds invasion in Kenya include the Fall Army Worm and the Maize Lethal Necrosis Disease (MLND) in Maize, Tuta Absoluta in tomatoes, Water Hyacinth, pathenium, agrobacterium in roses and fruit fly.



Maize crop damaged by the Fall Army Worm

Kenya is largely an agricultural country. It is estimated that over 75% of Kenya's population lives in the rural areas where their main economic activity is agriculture. Introduction of harmful organisms into the country not only has negative social and economic impact but also deprives most people their livelihoods. It is therefore the duty of everyone to safeguard Kenya's agriculture from invasive pests and weeds to ensure continued productivity, market access and sustainability.

The Crop Protection Act, Cap 324 of the Laws of Kenya provides the legal frame work for outlining conditions and measures which must be met before plants, plant products and regulated articles (soil water, fertilizer and agrochemicals) are brought into the country. KEPHIS implements this legislation alongside others through application of quarantine measures to safeguard Kenya's agriculture and environment for a prosperous nation.

General guidelines for importation of plant Material into Kenya

1. Documents required to bring plant material into Kenya?
 - Plant Import Permit (PIP) issued by KEPHIS has details of conditions to be met when importing plants and/or plant products into Kenya
 - On arrival, an original phytosanitary certificate issued by National Plant Protection Organization (NPPO) of the exporting country to confirm that the import conditions outlined in the

PIP have been met

2. Process of importing live plant materials into Kenya
 - Make a request for a plant import permit to KEPHIS.
 - You shall receive advice from KEPHIS on how to prepare the import
 - Some plants may be held at government post entry quarantine (PEQ) facility or an approved private quarantine site on arrival. An import permit will not be issued until appropriate post entry quarantine arrangements have been made.

KN

Tomato crop destroyed by Tuta absoluta



When uncontrolled, pest damage can lead to 100% crop loss





KEPHIS Conference Centre

Oloolua Ridge, Karen, Nairobi

'Excellent Conferencing and Accommodation Facilities'

- ✓ Peaceful Environment
- ✓ Excellent Kenyan Cuisine
- ✓ Excellent Customer Care
- ✓ Affordable
- ✓ Free Wi-fi

MEETING ROOMS



ACCOMMODATION ROOMS



FINE DINING



Contacts:

KEPHIS Conference Centre
Tel: 020 661 8000 / 0709 891 000
director@kephis.org
kephisconferences@kephis.org
www.kephis.org

IMPORTANT NOTICE ON CHANGE OF KEPHIS CONTACT

DETAILS

In order to enhance communication with our stakeholders, customers and the public, we are happy to inform you of our new phone numbers which will make it easier for you to reach and engage with us.

The new numbers are as follows:

Telephone: 020 661 8000

Cell phone: 0709 891 000

Our other contacts remain the same:

director@kephis.org

kephisinfo@kephis.org

www.kephis.org

[Facebook.com/kephis](https://www.facebook.com/kephis)

KEPHIS Headquarters

P.O. Box 49592-00100, Nairobi

PH: 020 6618000

Cell: 0709 891000

Email: director@kephis.org

kephisinfo@kephis.org

www.facebook.com/kephis

www.kephis.org

KEPHIS countrywide offices

Nairobi (headquarters) | Plant Quarantine and Biosafety Station,

Muguga | Plant Inspection Unit - Jomo Kenyatta International

Airport, Nairobi | Mombasa | Nakuru | Kitale | Kisumu | Embu |

Naivasha | Eldoret Airport | Malaba Border Office | Busia Border

Office | Isebania Border Office | Namanga Border Office | Loitokitok

Border Office | Taveta Border Office | Lungalunga Border Office |

Moyale Border Office | Bura Office | Timau Office |

KEPHIS News is published three times a year by

Kenya Plant Health Inspectorate Service.

©KEPHIS 2017

Text and images by KEPHIS. In compliance with copyright

restrictions, no portion of this material may be reproduced in

any form or stored on any system without the written

permission of KEPHIS

Chief Editor

Dr. Esther Kimani

Writers

Lynette Mbebya

Hilda Miranyi

Catherine Muraguri

Lindsay Mocheche

Onesmus Mwaniki