

A Kenya Plant Health Inspectorate Service(KEPHIS)Newsletter

Compliance Key to Reduced Interceptions in the European Union Market

hief Executive Officers serving in organizations in Kenya's horticulture industry have been urged to ensure compliance of their horticultural produce destined for the key European Union (EU) market to reduce interceptions.

Speaking during a consultative meeting to brief the industry so far on addressing the interceptions, the acting Managing Director, KEPHIS, Dr. Esther Kimani also said the EU had advised that it will not put any more stringent measures on Kenyan horticultural produce as the trading bloc had recognized efforts put in place by the government to address the interceptions. However, Kenyan produce was still on the list of high alert hence the produce has to be compliant to the market requirements. "We commend you for the efforts you have put in place to address the issues of compliance," she said.

Participants were informed of the efforts KEPHIS has initiated and developed to ensure the success of the industry. These include strengthening relationships with stakeholders such as the Horticultural Crops Directorate (HCD) and the Pest Control Products Board (PCPB) and instituting proper traceability systems and risk based analysis of pesticide residue levels on peas and beans with pods. The Ag. MD urged the leaders to identify farmers who still have issues with compliance to contact KEPHIS for training; moreover, traceability systems have to be put in place. Exporters were also urged to be vigilant and send clean...... **Cont. Page2**



French beans (left) and Karella (Bitter Guard): These are some of Kenya's horticultural produce under scrutiny in the key European Union market

www.kephis.org

Inside this issue

Kericho Governor Prof. Chepkwony Praises KEPHIS World Class Labora- tories	2
Seed Regulations to Enable Cross Border Trade Launched	4
Moyale Border Post: Sensitisation Forum on Plant Imports and Exports	5
KEPHIS Working with Counties to Promote Food Security and Facilitate Plant Exports	6
Special focus on the Maize Lethal Necrosis Disease	8
New Crop Varieties Released to the Farming Community	11
Giving Back to the Community Through Corporate Social Responsi- bility	12
KEPHIS Introduces Security Features to Curb Sale of Fake Seed	13
KEPHIS Staff End of Year Get To-	15

KEPHIS NEWSLETTER FEBRUARY 2015



The Head of Pesticide Residue Analysis and Food Safety at the KEPHIS Analytical Chemistry Laboratory Onesmus Mwaniki (left) explains how the laboratory works to Prof. Paul Chepkwony, Governor of Kericho county (2nd left) when the Governor paid a courtesy call to the laboratory

Kericho Governor Prof. Chepkwony Praises KEPHIS World Class Laboratories

ericho Governor Prof. Paul Chepkwony has praised the plant health laboratories at KEPHIS, stating they are among the best in the world. speaking when he paid a courtesy call to the Corporation, the Governor also urged the government and stakeholders in the agriculture sector to protect Kenya's laboratories as they are "the face of Kenya."

"KEPHIS laboratories are way ahead of many European countries and other countries around the world," he stated. The Governor spoke after touring the Analytical Chemistry Laboratory at KEPHIS headquarters, where he saw firsthand how horticultural produce destined for the European Union market is analyzed and pesticide residues detected before export. He was impressed by the state-of-the-art equipment purchased by the government to boost the **Cont. Page 3**

From Page1

and compliant produce at the point of exit to minimize rejections. The Ministry of Agriculture, Livestock and Fisheries constituted a taskforce comprising KEPHIS, PCPB, HCDA and the Kenya Agricultural and Livestock Research Organization (KALRO) to urgently address the issues of interceptions in the EU, Kenya's key market where more than 95% of her horticultural produce is exported. The committee came up with an action plan to address the interception issues and meets regularly to access the progress made so far.

Zakayo Magara, the Interim Head of HCD informed the meeting that the directorate was vetting and auditing farms to bring out companies that have working systems and to use them to mentor those that do not have working systems. The industry still has issues that need to be addressed such as Maximum Residue Limits (MRLS) and documentation issues, harmful organisms, the use of unregistered suppliers and produce harvesting at the airport, and exporting companies who have been suspended still exporting using their affiliated companies and concern of the market receiving immature crops. Currently, 10% of beans and peas in pods is subject to mandatory checks at the ports of entry.

The meeting was sponsored by the Standards and Market Access Programme, a three year project sponsored by the European Union. KEPHIS is implementing the project together with the Kenya Bureau of Standards and the Directorate of Veterinary Services. **KN**

KEPHIS NEWSLETTER FEBRUARY 2015



Prof. Chepkwony (3rd right) is shown the workings of the Analytical Chemistry Laboratory at KEPHIS headquarters. He was accompanied by Hon Livingstone Kipkoech, Member of County Assembly for Seretet Ward in Kericho County (3rd left).

From Page 2

export process capacity.

Approximately 95% of Kenya's horticultural produce is exported to the EU market. Some of the produce includes peas and beans with pods, chilies, capsicums, parsley, french beans, karella, gypsophila, eryngium, mangoes and avocado. The Acting Managing Director KEPHIS, Dr. Esther Kimani explained the role and mandate of KEPHIS and the world class laboratories the institution has including the Seed Health laboratory in Lanet, Nakuru; the Plant Quarantine and Bio-security Station at Muguga and the Analytical and Molecular laboratories at KEPHIS headquarters and Kitale.

WORKING WITH COUNTY GOVERNMENTS

KEPHIS, the governor reiterated, is important in facilitating export and county governments need to work closely with the Institution to get vital documents for export such as phytosanitary certificate. For instance, Kericho County is planning to export pineapples to Israel and needed to engage KEPHIS to facilitate the export process. The county is already exporting sweet potatoes and receives services from KEPHIS. "Currently, the top economic sector in many counties is agriculture, and they will have to liaise with KEPHIS if they want to export" he said. Dr Kimani urged county governments to ensure their export produce conforms to global standards to avoid rejections in the market destinations. *KN*



Prof. Chepkwony (3rd right) points out how the Liquid Chromatography–Mass Spectrometry (LC-MS-MS) machine works. The highly specialized machine detects pesticide residue molecules in horticultural produce destined for the EU market. The Government, through KEPHIS, has invested heavily in equipment to ensure that export produce conforms to global market requirements.



From Left, front row: Azariah Soi, the Chairman of the Seed Trade Association of Kenya, John Mukuka of ACTESA, Dr. Esther Kimani of KEPHIS and Argent Chuula of ACTESA and other delegates who attended the official launch of the COMESA Seed Regulations launch at Hilton Hotel, Nairobi, recently.

Seed Regulations to Enable Cross -Border Trade Launched

he Common Market for Eastern and Southern Africa (COMESA) seed regulations were launched in Nairobi, with calls for organizations and individuals to take up the production of seed to promote food security in Africa. "There is a huge amount of seed required, presenting opportunities in investing in seed " stated Dr. John Mukuka. a seed expert from the Zambia based trading

MANY COUNTRIES IN THE CONTINENT ARE NOT FOOD SECURE DUE TO LACK OF GOOD AND CERTIFIED SEED OR NONE AT ALL.

bloc.

"For instance, Ethiopia imports seed from Zambia while Rwanda and Burundi need seed for cereals, "Argent Chuula, the Chief Executive of ACTESA emphasized in his speech. The regulations were launched after years of development by COME-SA through the Alliance for Commodity Exchange in Africa (ACTE-SA) which realized the importance of having harmonized regulations to facilitate trade within the member countries.

"There is a huge amount of seed required, presenting opportunities in investing in seed" -Dr. John Mukuka ACTESA was formed as a result of the Maputo Declaration which states that African governments should commit to the allocation of at least 10 percent of national budgetary resources to agriculture and rural development policy implementation. ACTESA is a regional Agricultural Specialized Agency of COMESA and its mission is to..... Cont. Page 5

integrate smallholder farmers into domestic, regional and international markets through an improved policy environment and expanded market facilities and services. ACTESA was established by the COMESA Authority to harmonize and coordinate multiple interventions of Member States, Development Partners, Implementing Agencies and COMESA Secretariat.

The Acting Managing Director, KEPHIS, Dr. Esther Kimani in her speech,

recognized that the COMESA states were at different levels of seed development, hence the need for other countries to strive for improvement to make inter border trade seed trade a reality. For instance, Kenya is a member of the Organization for Economic Corporation and Development as well as the International Seed testing Association while some of her neighbours were not members; Kenya also has established infrastructure and a liberalized market. The launch also brought

to the fore the need to have regulatory staff in the different COMESA countries to oversee the functions of seed. Mr. Kenneth Ayuko, representing the Ministry of Agriculture, Livestock and Fisheries reiterated the need for availability of seed which he pointed out was necessary for agricultural improvement and trade.

"To access seed, there has to be trade between countries," he stated. COMESA states will also have to improve their plant variety protection mechanisms so that breeders of seed are confident that their inventions will not be copyrighted. The event was attended by University of Nairobi, the Seed Trade Association of Kenya, Plant Breeders, Kenya Agricultural Research and Livestock Organization, Seed companies and representatives from the Ministry of Agriculture, Livestock and Fisheries. After Nairobi, the regulations will be rolled out in Tanzania, Malawi, Zimbabwe, Rwanda and Burundi.

KN

Moyale Border Post: Sensitisation Forum on Plant Imports and Exports

he KEPHIS Moyale border office held a seminar to sensitize plant exporters and importers, the police, county officials, Kenya Bureau of Standards and Ministry of Agriculture officials on the KEPHIS role of facilitating cross border trade. The seminar was also crucial for stakeholders to understand that safeguarding the country from the entry of pests and diseases is a collective effort from KEPHIS and the stakeholders the Corporation works with.

KEPHIS explained the importance of the Electronic Certification System (ECS) and the Automated Support System for the Importation of Phytosanitary Consignments (ASSIP-K) in the export and import of plant and plant based products. Also, it is important for importers to obtain the required documentation during export and import of commodities and the need for corporation with Kephis staff. The need to ensure the recommended moisture content in imported cereals was emphasized so as to minimize the effects of mycotoxins. The Moyale border post is porous and has non-official entry points at Sololo, Gither and Biashara Street. This is where majority of plant imports, especially by small scale importers, enter Kenya's territory... **Cont. Page 6**

KEPHIS Newsletter FEBRUARY 2015

From Page 5

hence evading Kephis inspections. This poses a great danger to the country's agriculture since high risk commodities like firewood find their way into the country. Climate change, by nature, has played a part in spreading of pests and diseases hence vigilance is required at all times to mitigate against the entrance of these into the country.

Importers were also urged to include additional declarations, if need be, on phytosanitary certificates and to obtain Plant Import Permits (PIPs) during imports.

Despite several challenges, the participants were happy to note that the One-Stop-Border-Post to be operationalized would enhance service delivery by minimizing movement from one government office to the other to obtain documents. Finally, the stakeholders requested that imported vegetables and fruits sold and consumed locally be tested for MRLs. **KN**

KEPHIS Working with Counties to Promote Food Security and Facilitate Plant Exports

The KEPHIS Kitale and Eldoret offices organized a horticulture stakeholders seminar in Eldoret, to educate farmers in Uasin Gishu, Nandi and Trans Nzoia counties on how to enhance market access for their horticultural produce, requirements for export and how close collaboration with KEPHIS can better facilitate their horticultural businesses.

The horticulture sector is an important foreign exchange earner, with the country earning approximately KES 100 billion yearly in foreign exchange, employing 2.5 million Kenyans directly and indirectly. Stakeholders were also sensitized on emerging plant diseases in the country such as the Maize Lethal Necrosis Disease. This was particularly important as the region is referred to as the 'bread basket' of Kenya where most of maize, Kenya's staple food is grown.



OVERVIEW OF HORTICULTURE IN UASIN GISHU COUNTY

Uasin Gishu's total land area is 3,375km2 of which 2,995km2 of the land area is arable. Passion fruit, French beans, snow peas and summer flowers are some of the horticultural crops produced for the export market. Some of the challenges experienced include rejection of produce, lack of cold storage facilities, lack of clean planting material, dependence on rain fed agriculture, delays in..... **Cont page 7**

From Pg 6

farmers payments, low volumes of produce and lack of agro-processors. Priority crops for the county include tissue culture banana and passion fruit. The county has prioritized infrastructure development, horticulture development and stakeholder linkages to facilitate the sub-sector.

The Ag. MD KEPHIS, Dr. Esther Kimani stated the importance of KEPHIS, a member of the World Trade organization, in facilitating trade. She emphasized the importance of adhering to standards in order to access global markets such as the European Union market. Moreover, produce for the export market must meet the standards stipulated by the particular market. She also encouraged the farmers present to have their inputs such as soil and fertilizers analyzed and seek remedial recommendations to enhance their harvests. Exporters were urged to understand market concerns such as exceedances of Maximum Residue Limits (MRLs) and the presence of harmful organism on plant produce and to present clean

produce at exit points to avoid interceptions at export markets. The CEC trade & tourism congratulated the Standards and Market Access Programme(SMAP who through KEPHIS had planned the training in the North Rift, a zone reliant on cereals. She pointed out that diversification would be more profitable to farmers in the area. She urged the participants to work with KEPHIS to seek solutions to some of the challenges. *KN*



Special focus on combating the Maize Lethal Necrosis Disease (MLND)

Analysts Training on Maize Seed Testing for the Maize Lethal Necrosis Disease (MLND)



Maize crop attacked by Maize Lethal Necrosis Disease (MNLD)

A aize is widely grown in Kenya and ranks highly in food security and meeting dietary preferences of many communities in Kenya. In September 2011, cases of maize infected by the Maize Lethal Necrosis Disease (MLND) were reported in Bomet County; during this year, the total value of the maize crop was worth about KES 87.8 billion, a figure which has continued to decrease since then. Hence, any factor that threatens maize production impacts negatively on the national economy and food security. Within a span of one year, the disease has been reported and confirmed in the Eastern, Rift Valley, Nyanza, Western, Nairobi and Central counties. The disease has now been reported in almost all

maize growing regions of Kenya and in most of our neighboring countries. In Kenya, the disease is caused by a combination of two viruses: sugarcane mosaic virus (SCMV) and maize chlorotic mottle virus (MCMV). The SCMV is transmitted by aphids, whereas a

number of insects including thrips are implicated in transmission of MCMV. Infected maize plants show severe symptoms that result in poor grain formation and rotting grains, drastically affecting yields.

Earlier reports indicated that the rate of transmission of the causative viruses in seed was very low (0.04%). However recent research has indicated that the rate of transmission by seed could be much higher. As part of the activities that KEPHIS has undertaken to mitigate the disease is the implementation of mandatory testing for all seed lots currently under certification in the country for the presence of MLND causative viruses. This would be done before the seed is delivered to farmers and would help to ensure that the seed sent to farmers is free from the virus.

For KEPHIS to achieve this, it was found necessary to train additional analysts to enable the testing to be expanded to the three KEPHIS Laboratories, i.e. the Plant Quarantine and Biosecurity Station at Muguga(PQBS), the head laboratory at the headquarters and the Nakuru Seed Laboratory...... **Cont. Page 9**

The activity was supported by the Standards and Market Access Programme (SMAP) project. The training was undertaken at the PQBS from the 5th to 9th January 2015. Participants were 10 trainees from KEPHIS and 2 from Kenya Seed Company. The participants were taken through the principles of nucleic acid extraction, various methods of virus detection as well as the details of PCR. The sessions involved both theory and practical sessions.

The current status of MLN disease

he first cases of maize infected by MLND were reported in Bornet County in September 2011 and since then the disease has continued to spread throughout Eastern Africa. The viruses, especially MCMV, have been reported in the Democratic Republic of Congo, Rwanda, Uganda and Tanzania and are very likely to be present in other countries such as South Sudan and Ethiopia. The disease has however not yet been reported in the Southern African counties which are a major source of seed for this region. Regulatory procedures have been instituted in Kenya as well in the neighboring countries, the most important of which is the mandatory testing of all seed destined for export (or import) for the presence of the two viruses.



After recent consultations between the seed companies and KEPHIS, it had been agreed that all locally produced seed would also be subjected to this mandatory testing, a decision which had necessitated the expansion of testing to the three KEPHIS laboratories.

Diagnostic techniques for the detection of MLND (ELISA, PCR, LAMP)

he Officer -in-Charge of the PQBS, Mr. Mwatuni explained the principles of the various testing methodologies used in detection of the two viruses. These included the Enzyme Linked Immuno-Sorbent Assay (ELISA), Polymerase Chain Reaction (PCR) and Loop Mediated Isothermal Amplification (LAMP). He also introduced a new technique, Recombinase Polymerase Amplification (RPA) which has great potential in increasing the testing efficiency, reducing the cost of testing and the short turnaround time.

RPA is a rapid isothermal nucleic acid amplification and detection platform that is based on patented Cont. Page 10

RPA technology.

AmplifyRP can achieve similar sensitivity and specificity to that of PCR based testing methods, but has some clear advantages. Unlike PCR, AmplifyRP testing formats do not require thermal cycling. The entire amplification process is completed at a single operating temperature (39°C) using a portable hot block or fluorometer. Additionally, AmplifyRP does not require any nucleic acid purification steps. Crude sample extracts can be prepared using a simple extraction buffer and can be tested directly. This makes the testing process very simple and saves the end-user valuable time. **KN**

Role of KEPHIS in maize seed certification



Participants learning about sample preparation in readiness for QPCR

t was emphasized that seed is the basic input that sets the potential for crop yield. Seed quality control services in Kenya operate within the guidelines and procedures stipulated in the Seeds and Plant Varieties Act (Cap 326) of the laws of Kenya. Seed certification was defined as a confirmation of compliance with these requirements.

The objectives of Seed certification are twofold:

a) It ensures that farmers receive quality seed so as to maximize their crop production. This ensures that the seed is pure, viable and healthy.

b) Ensures that farmers are not at risk of being provided with low quality seed by fraudulent traders.

Using quality seed leads to higher crop emergence, reduced re-planting, uniform crop stands and vigorous early crop growth. The presence of MLND in seed maize will negate all this.

The various activities for production of certified seeds range from registration of seed growers, through field inspection to post control and post certification controls.

a) Mitigation measures taken against MLND (both regulatory and research)

It was noted that so far a lot of work has gone into understanding the dynamics of the disease as well as in instituting regulatory mechanisms to stem its spread. These were highlighted as follows.

• Effective protocols for detection and screening for MCMV & SCMV have been optimized and are currently being used to screen seed

• Also imports of maize seed have been centralized with all requests to import maize seed being handled at the KEPHIS headquarters in Karen

Cont.Page 11

• Maize seed importers are required to send a representative sample to KEPHIS for MLN screening prior to importation. Due to the threats of spread and introducing new strains of MCMV, seed samples are delivered to KEPHIS plant health I aboratories for screening for the two viruses

- · A Plant Import Permit is issued for importation once the lot is declared to be free from the viruses;
- Seed is treated with systemic insecticides and fungicides to control the vector and opportunistic fungi for the first 6-8 weeks. (Imidachloprid e.g. Gaucho, Thiamethoxam e.g. Cruiser, Cabendazim, Maxim XL)
- · Farmers are encouraged to continue spraying after 8 leaf stage to limit population of the vector
- All imported (and locally) produced seed is tested for the two viruses
- Capacity at KEPHIS is being improved to have three laboratories testing MLND causing viruses
- Breeders/seed companies encouraged to develop resistant/tolerant varieties. Tolerant varieties to be fast-tracked for release. One moderately tolerant variety (WE1101) has been released and seed may be available in the current season
- Screening of all maize varieties under NPT for MLN tolerance. This is a collaborative effort with CIMMYT. CIMMYT/KARI
 have established a screening facility in Naivasha KN

New Crop Varieties Released to the Farming Community

orty eight varieties of crops were released to the farming community at KEPHIS headquarters, an activity that will see farmers getting superior crop varieties to plant thereby enhancing food production in the country. The varieties have come at an opportune time as the country prepares for the planting season later in March. About 50 plant breeders who comprise the National Release Variety Committee (NVRC) released varieties of maize, beans, wheat, potatoes, cowpeas, French beans and sugarcane which will now be commercialized by seed companies and availed to farmers. Crop varieties are released after undergoing National Performance Trials (NPTs) to test their agro-ecological capabilities for two seasons

and Distinctness, Uniformity and Stability (DUS) tests where they are checked to differentiate them from an existing variety in respect to specific traits; a variety is stable after repeated reproduction or propagation. The National Variety Release Committee is the final committee which releases crop varieties after undergoing the tests. KEPHIS is the secretariat of the NVRC. In her remarks while opening the meeting, the Aq. Managing Director, KEPHIS, Dr. Esther Kimani reiterated the importance of Agriculture to Kenya's economy, which contributes to 27% to Kenya's



economy directly and indirectly. Farmers, she said, need the right cultivars for planting. She also congratulated breeders for their hard work. "We know that developing a variety can take very many years and we do not take this for granted." She stated. She emphasized the role of KEPHIS as a regulator who was ready to work with breeders. The Director of Training and Extension at the Ministry of Agriculture, Livestock and Fisheries, Ms.Mary Kamau urged the plant breeders to come up with varieties resistant to pests and diseases such as the Maize Lethal Necrosis Disease (MLND).... Cont.Page 12



Bishop (rtd) Wilson Kigen (right) Founder and Manager of Eldama Ravine Children's Village with some of the children together with KEPHIS staff during the advance party visit to the home

The Disease is one of the challenges facing our country today and we are yet to get a variety that is tolerant to the disease," she said.

In the last year alone, 135 crop varieties have been released, including 87 officially released by the Cabinet Secretary, Agriculture, Livestock and Fisheries Hon. Felix Koskei during the KEPHIS organized Nandi Field Day. **KN**

Giving Back to the Community Through Corporate Social Responsibility

EPHIS gave back to the community through its annual Corporate Social Responsibility (CSR) activity, at Eldama Ravine Children's Village in Baringo County. The home is managed by Bishop (rtd) Wilson Kigen and his son Benjamin Kigen and they house approximately 30 children poverty stricken children from single parent or orphaned homes. The children live in mud huts and depend on well-wishers for their schooling, maintenance and upkeep.

Of particular concern to KEPHIS

was that the children slept on broken beds which had torn bedding. They also had insufficient food and milk; the aging cow at the home provided insufficient milk.

KEPHIS donated a calf which when grown will provide sufficient

milk for the children; the Corporation also donated 32 beds, 32 mattresses, 32 pairs of sheets and 32 bed covers. In addition, the KEPHIS Nakuru Regional Office donated 20 bags of maize. **KN**



maize for Eldama Ravine Children's Home

KEPHIS NEWSLETTER FEBRUARY 2015



The calf (centre) that will in future supply the Eldama Ravine Children's Home with sufficient milk

KEPHIS management and staff, Koibatek with some of the children of Eldama Ravine Children's Home,

KEPHIS Introduces Security Features to Curb Sale of Fake Seed

EPHIS has introduced security features on seed packets in a bid to curb the menace of fake seed in the country.

As farmers prepare their farms in preparation for the early year planting season, they are being urged to look out for seed packets that have the KEPHIS logo embossed in gold foil and lot numbers; these two aspects are the security features. The KEPHIS logo is placed in such a way that one cannot remove it without damaging the sealed packet of seed. This is the sign that the seed has been certified by KEPHIS. During the planting season, unscrupulous traders many times sell fake seed to unsuspecting farmers, leading to poor harvests.

The security features been adopted by many seed companies which sell the seed to farmers. The security features are on the 2 kilogramme, 10 kilogramme and 25 kilogramme packets of maize. KEPHIS is the regulator of the seed industry in Kenya and works with them to ensure that farmers get top quality seed for planting thereby enhancing food production in Kenya. Currently, Kenya has 131 registered seed companies.

KEPHIS General Manager in charge of Quality Assurance, Mr. Simeon Kibet says the security features are an assurance to farmers that the seed is of good quality and has been certified by KEPHIS. KEPHIS is the regulator of the seed industry in Kenya and all seed companies must be registered with KEPHIS before commencing producing quality seed. Part of a seed packet that has the lot number from KEPHIS

Frequently Asked Questions about Certified Seed

What is certified seed and its benefits to Kenyan farmers?

Certified seed is seed that has met the minimum national set quality standards after undergoing field inspection(s), laboratory tests and post control tests by KEPHIS. The use of certified seed guarantees the following:

•High yields, quality crop produce and better returns when all other factors of crop production and agricultural practices are optimal (i.e. good soil fertility, conducive climatic conditions, adequate soil and irrigation and proper water/fertilizer usage). Farmers are advised to confirm the quality of agricultural inputs Cont.page 14

(fertilizer, pesticides, water and soil) used through laboratory tests conducted by reputable laboratories such as the KEPHIS Analytical Testing Laboratory (ACL) which has offices at KEPHIS headquarters and Kitale.

How can a farmer identify certified seeds?

Certified seeds are packed in containers or packets which are clearly labeled and contain the following information:

a. Seed lot numbers to allow for easy traceability of seed lot in the event of crop failure

- a) Weight of the seeds
- b) Name of the crop species
- c) Packaging date
- d) Seed merchant/company

Labeling and sealing of the containers or packets is done in such a way that seeds cannot be removed without damaging the seal or label. Farmers can avoid fake seeds by:

•Purchasing seed(s) from seed merchants who are licensed by KEPHIS

and prominently display their seed seller's license.

•Buying seeds packed in official company packets containing Variety Name and Lot Number; DO NOT PURCHASE SEEDS FROM OPEN CON-TAINERS.

•After planting, keep the packet and receipt as these may be required as evidence in case you suspect fake seed.

•Not exposing seed(s) to extreme weather conditions, e.g. heat, moisture, light, otherwise the quality of the seed will be compromised. Farmers are advised to purchase and plant recommended seed varieties for their particular areas. SMS 20441 to get the recommended seed varieties and stockists for your area. For example, for maize farmers, send an SMS to maize#division to 5354, for example, maize#Maragua to 5354 and you will get the appropriate response.

Before buying seed, please get the seed stockists ID and send to 5354 to verify if they have been registered by KEPHIS.

NOTE: Report all cases of suspect seed(s) at the nearest police station, nearest KEPHIS offices or the Ministry of Agriculture. •Plant recommended seed varieties for your area



Part of a seed packet that has the lot number from KEPHIS



KEPHIS Staff End of Year Get Together



KEPHIS Headquarters

P.O. Box 49592-00100, Nairobi PH: 020-3597201/2/3 |3536171/2 Cell: 0722-516221 | 0723-786779 |0733-874274 | Email: director@kephis.org www.facebook.com/kephispage 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 2015

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 Editorial Team Joseph Kigamwa Pamela Kipyab Catherine Muraguri George Ngundo Jane Boit

