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# Second Set of Mango Fruit Fly Traps Launched in Elgeyo Marakwet County

By *Catherine Muraguri*  
PR and Communications Office

**A** **IC Cheptebo, Keiyo North, Elgeyo Marakwet County** - A second set of mango fruit fly traps were officially launched in Elgeyo Marakwet County, in an effort to control the pest and enhance access of the fruit to global markets. The county Deputy Governor Hon. Gabriel Lamaon and KEPHIS Ag. MD Dr. Esther Kimani officially launched the traps in the presence of mango farmers, stakeholders and county government officials, during a field day in Keiyo North sub-county. The event was sponsored

by the Standards and Market Access Programme (SMAP). SMAP is a three year project that is building capacity of government agencies involved in standards setting, to enable export produce meet the stringent international export requirements. Currently, KEPHIS is working with mango growing counties to create pest free areas, thus facilitating exports, particularly to the key EU market. Elgeyo Marakwet is one of the Kenya's top mango producing areas with 518 hectares under mangoes. The county has an annual **Cont. Page 2**



*A mango tree in an orchard in Keiyo North, Elgeyo Marakwet County*



*Elgeyo Marakwet Deputy Governor Hon. Gabriel Lamaon (right) officially launches the second mango fruit fly traps in the county*

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production of 24,285 tonnes valued at Ksh.383, 449,850. It is a net supplier of the fruit to the western part of Kenya. Most mangoes in the County are grown in Kerio Valley that has the best conditions suitable for mango production. The county government has a target of planting over 30,000 seedlings to ensure an annual increase of 240 hectares. The current mango promotion and support given to farmers by the county government where an approximate of 30,000 seedlings are planted annually will result in a progressive increase in production by at least 45% annually. The common existing grown mangoes are Apple, Kent, Ngowe, Keint and local types such as Banda, Nyamaundo, Kapchebet and Kalor Moi. However, the county faces challenges including the presence of pests and diseases that KEPHIS is addressing by sensitizing farmers on management

**“The first set of fruit fly traps was launched by the Governor Hon. Eng. Alex Tolgos in Tot, Endo Ward in March 2015.”**

options. The launch of the fruit fly traps is part of the Integrated Pest Management (IPM) campaign spearheaded by KEPHIS to eradicate the pest. Other methods of pest control in the IPM include field

sanitation and burning of infected fruits.

The fruit fly trap works by trapping the adult male flies hence reducing the population of the pest. A plastic bottle is pierced with small holes on the sides; inside the bottle, a small cotton or cloth ball is soaked with the female fruit fly hormone and liquids

which lure the male fruit fly population. The males fly in through the small holes in the bottle and are killed by pesticides in the lower part of the bottle. As a regulator, KEPHIS is working with stakeholders such as the Horticultural Crops Directorate, Pest Control Products Board and the Kenya Agricultural and Livestock Research Organization to ensure the mangoes in the county are suitable for export. **KN**



*KEPHIS Ag. MD Dr. Esther Kimani (centre) explains how a fruit fly trap works.*



*Elgeyo Marakwet Deputy Governor Hon. Gabriel Lamaon (6th left) and KEPHIS Ag. MD Dr. Esther Kimani (4th left) with stakeholders during the recently concluded field day at AIC Cheptebo, Keiyo North Elgeyo Marakwet County*

# Tharaka Nithi County Launches the Integrated Pest Management Programme

By **Edith Avedi**  
Embu Regional Office

**T**unyai, Tharaka Nithi County-Like Elgeyo Marakwet county, Tharaka Nithi is one of the key mango growing areas in Kenya. As part of creating awareness on managing the mango fruit fly, KEPHIS conducted a one day field day at Mr. Mpanda's farm in Tunyai to sensitize mango farmers on the fruit fly Integrated Pest Management (IPM) Programme so as to ensure compliance with market requirements.

The suspension of mango exports led to the development of a certification protocol for this produce to enable access

for the EU market. The activities culminated in the launch of the mango fruit fly IPM strategy by the General Manager Finance and Administration Mr. Stephen Ithili who represented the KEPHIS Ag. Managing Director Dr. Esther Kimani during the field day.

Mr. Ithili urged mango farmers to adhere to the export requirements to enable the produce be accepted by international markets. He further urged for continued collaboration between the county and KEPHIS, especially regarding matters of seed certification, phytosanitary inspections and for farmers to use the KEPHIS accredited laboratories.

"Our office in Embu is there to serve you, the farmer, so do not hesitate to contact us if you have any issues within our mandate," he advised the farmers. Several stakeholders including representatives of the county government of Tharaka Nithi, mango farmers and exporters, government agencies, financial institutions, community based organizations, seed companies, agrochemical companies and seedling nursery operators were in attendance. The event

**"Over 400 farmers participated in the event."**

was officially opened by the county chief officer in charge of trade, industry and cooperative development Tharaka Nithi County (representing the Governor Tharaka Nithi County) and Mr. Mpanda (representing the mango farmers).

Over 400 farmers participated in the event.

The field day was preceded by a road show to invite farmers to the field day as well as creating awareness on the local channel, *Muuga FM*.

KEPHIS also paid a courtesy call to the Governor Hon. Samuel Ragwa at Kathwana, the county headquarters.

The farmers pledged to implement the mango fruit fly IPM strategy and achieve an area wide pest free area. **KN**



# Preparation and launch of the mango fruit fly trap by KEPHIS and county officials

## Steps in Setting Up the Mango Fruit Fly Trap

KEPHIS in collaboration with the county governments of Tharaka Nithi and Elgeyo Marakwet has officially launched mango fruit fly traps. The aim is to create pest free areas to enable the export of mangoes to overseas markets, such as the key European Union market. KEPHIS will launch the traps in other mango growing counties, such as Makueni in the 2015-2016 financial year.

### What you need to assemble a fruit fly trap:

- A clear, transparent perforated container
- Pheromone-this is the attractant that is laced with female hormone insecticide that will be used to attract the males into the container
- Hook to attach the pheromone onto a tree
- gloves
- Scissors to cut the satchet containing pheromone.

#### Additional information

- The trap costs approximately KES 350
- 5 traps are adequate for an acre of land
- Replace the traps after 5 weeks
- Care should be taken not to contaminate the plastic container so that the male fliers are not attracted outside the container.
- properly dispose of the gloves and satchet after use

**Monitor the fruit fly population by checking the traps twice weekly.**





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**Pictures 5-6**

*The hooked attractant put inside a perforated (with holes) container which acts a trap for the male fruit flies.*



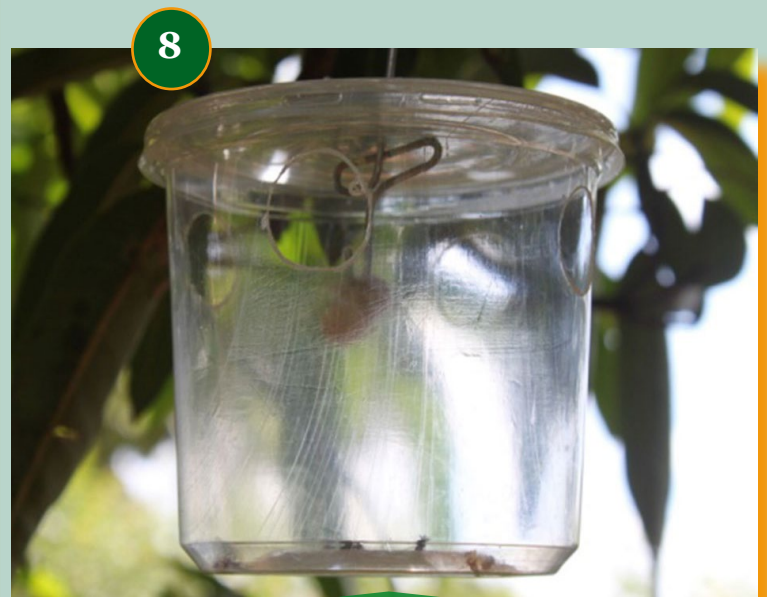
6

**Picture 7**

Hooking the trap onto a mango tree; ensure the tree has enough foliar (leaves)



7



8

**Picture 8**

The trap on a mango tree (see dead fruit flies inside the container)

# Murang'a County Extension Officers Trained on Good Agricultural Practices

By **Hellen Mwarey**  
Managing Director's Office

**M**urang'a is one of the counties in Kenya with high production potential in horticulture. The county is well endowed with rich agricultural resources, having a representation of all agro ecological zones, immense water masses and fertile volcanic soils hence high potential in agricultural growth and development. It's eight sub-counties – Kandara, Gatanga, Kagumo, Kiharu, Kangema, Mathioya, Kahuro and Maragwa - produce avocados for export.

The Regional Integration Implementation Programme (RIIP) COMESA Adjustment Facility through KEPHIS organized a two day sensitization programme for extension officers from the county. Murang'a had expressed interest in the registration of a cooperative to export the farmer's fresh produce directly to the market. Therefore, a sensitization workshop was carried out to sensitize extension staff on KEPHIS activities and to seek partnership in ensuring compliance to international market standards.

#### Other objectives of the training were:

- To create awareness on phytosanitary and quality requirements for export

- To create awareness on compliance of food safety requirements
- To create awareness on Good Agricultural Practices(GAP) and the role of traceability in compliance.

Sixty (60) extension service personnel were trained.

The training was officially opened by the Minister of Agriculture Hon. Albert Mwaniki on behalf of the Governor, Hon. Mwangi wa Iria. From the onset, he stated that Agriculture is a key driver of economic growth of the county. Further, the county has rolled out horticulture programmes whereby they're producing French beans, Sugar snaps and Snow peas, alongside floriculture. They have also rolled out programmes on Avocados whereby the department of agriculture is promoting the export of the *Hass* variety. They are also supporting farmers by supplying seedlings and targeting distribution of 130,000 seedlings by end of 2015. Hon. Mwaniki expressed the importance of working together with KEPHIS, Horticultural Crops Directorate (HCD) and Pest Control Products Board (PCPB) for economic growth and production of safe agricultural produce and therefore the need for regular interactions.

The Managing Director, PCPB, Mr. Peter Opiyo explained that pesticides are meant to be injurious to targeted organisms and not harmful to non-targets, therefore they should be used in the required manner as indicated on the packaging. "With increased horticultural activities in Murang'a, more pests products are in use and therefore its necessity to use them well." he emphasized.

He pointed out that Dimethoate's use on fruits and vegetables is banned and called upon all to ensure that this is effected.

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## Other points put forward:

### Maximum Residue Levels (MRLs) on export produce

KEPHIS through its accredited Analytical Chemical Laboratory carries out MRL tests for advise to exporters towards fulfilling market requirements, but doesn't test produce at the time of exit from the country to destination markets. It was further expounded that for produce found to exceed MRLs in the destination markets, destruction is carried out.

### Concern on availability of fake chemicals and fertilizers in the market

Issues of fake pesticides are being addressed by pesticide inspectors who are visiting various agro-vets to ensure compliance. Participants were encouraged to report any case they suspect is dealing with fake pesticides to the relevant authority for action.

### Carrying out post harvest interval calculations to avoid selling produce with chemical residues

The application day should be counted as day zero and complete days counted as per label instructions, after which the harvesting date should be day zero after completion of the specified post harvest duration. Avoid residue build up and a pesticide should be applied after completion of specified Post Harvest Interval. Label instructions should guide pesticide applications.

### Disposal of expired pesticides and fertilizers

Disposal is carried out as per the Environmental Management Act to ensure safety to the environment.

### Export of immature avocados

There is need for traceability from the farm level to export to ensure compliance to market requirements.

### Quality of seeds sold to the farmers

Sometimes some companies release many varieties within a short period of time, hence concern on whether the due process is followed to ensure quality. This was due to a concern from some farmers that some seeds were performing poorly, yet were certified. It was explained that other factors such as improper handling during storage could result in poor performance of certified seeds. Also, there is always serious evaluation for superior characteristics before any variety is released and since some varieties fail but at times cycles of the same variety stabilize, this leads to release of such varieties. It was further expounded that stockists are always updated whenever they have forums with the regulator. It was explained that seed supply is the role of seed merchants and KEPHIS role is regulation for quality.

### False Coddling Moth

False Coddling Moth (FCM): This is not a new pest in the country; however participants were informed that KEPHIS has taken appropriate measures to address the problem including intensified inspections and carrying out farm audits and inspections of the exporters for compliance.

Other topics discussed included Maize Lethal Necrosis Disease and Genetically Modified Organisms (GMOs), **KN**



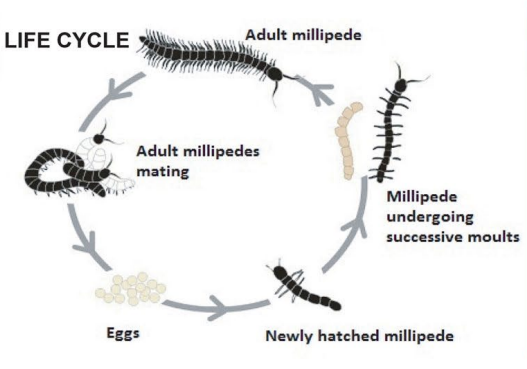
# MILLIPEDES (*Odontopyge spp.*) on POTATO

*Munyongoro (Kikuyu); Mung'ong'ola (Meru); Chepchonge (Kalenjin); Chinyongore (Kisii)*



## CHALLENGES

- Causes direct damage by feeding on the tubers
- High reproductive potential -20 - 300 eggs in 3 months
- Occurs in diverse agro-ecological zones of Kenya
- Wounds on tubers act as entry point for diseases
- No known control measures



## IMPACT

- Crop loss
- Reduces marketability of produce
- Pest of other crops



## MANAGEMENT

- Drenching with soil fumigants e.g. metam sodium
- Plant tolerant varieties
- Maintaining field hygiene i.e. disposal of plant debris
- Crop rotation
- Planting clean and certified tubers







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**ISO 9001:2008 certified**

### NOTICE TO EXPORTERS OF HORTICULTURAL PRODUCE TO THE EUROPEAN UNION (EU)

Kenya has in the recent past faced increased scrutiny of her horticultural produce to the European Union (EU) market, specifically on beans with pods, peas with pods, roses, karella (bitter guard) and chillies. Currently, the produce is subject to checks of exceedances of pesticides residues and presence of harmful organisms (pests) before entry into the EU.

While the country has made great strides in ensuring that its produce meets requirements of the trading partners, exporters are advised to adhere to the following when exporting produce to ensure compliance and entry into the EU market:

#### 1. Exceedances of Pesticide Residues on Export Produce

- The use of **dimethoate, omethoate** and **Chlorpyrifos** on fruits and vegetables is not allowed
- For other pesticides, observe **Pre-Harvest Intervals (PHI)**; when observing PHI, do not include the first day of spraying
- Read the label (Soma Lebo) before spraying; this includes understanding the colours and pictures on labels on how to use the pesticide before spraying
- If you have any questions or do not understand how to use the pesticide, speak to any KEPHIS or Pest Control Products Board (PCPB) officers nearest to you
- Continuously adhere to **Good Agricultural Practices**
- Farmers and exporters should have **quality control systems** which should be sustainable and ensures compliance of produce. This includes conducting periodic laboratory tests of produce and monitoring of pesticide uses
- Pesticides should be sourced from credible outlets that are licensed from the Pest Control Products Board (PCPB)
- **Note: All pesticides are recommended for specific uses and there are no general uses anymore**

#### 2. The Presence of Harmful Pests/Organisms on Export Produce

- Farmers and exporters should understand the market requirements of the different countries where they are exporting their produce.
- In addition, farmers should have **proper pest management systems** which include integrated pest management approaches, relating weather patterns and pest occurrence
- Farmers should practice **proper field sanitation** to minimize pest infestation
- Farmers should ensure that produce is properly graded by ensuring that the produce is whole, sound, produce affected by rotting, or deterioration such as to make it unfit for consumption is excluded
- Clean, practically free from any visible foreign matter
- Free from damage caused by pests
- Free from abnormal external moisture
- Free from foreign smell or taste
- Firm and Fresh in appearance
- Free from damage caused by low temperature
- Free from stains and marked bruises
- Sufficiently developed and display satisfactory ripeness, physiological maturity and specified cut stage

#### 3. Documentation

- All plant consignments **MUST** be accompanied by a phytosanitary certificate
- Exporters should ensure that **correct additional declarations** are reflected on the phytosanitary certificate
- Documents must be consistent and accurate, for example indicate correct produce in the consignment, correct date, correct quantities; ensure integrity of consignments by sending what is indicated on the phytosanitary certificate

#### 4. Loss of Documents

- It is the responsibility of the exporter(s) to safeguard their phytosanitary certificate.
- Exporters should safeguard their Electronic Certification System (ECS) passwords and not issue them to third parties.

Farmers should ensure that produce is properly graded by ensuring that the produce is whole and sound

For more information, please contact:

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# Corporate Social Responsibility

## KEPHIS Donates to Children Affected and Infected with HIV/AIDS

By *George Ruhangi Kamau*  
Human Resources Office

**K**itale, Trans Nzoia County – Discover to Recover Children’s Home in Namanjalala in Kitale was founded in 2002 by Ms. Patricia Sawo and her family. It has 48 children: 30 boys and 18 girls who call the place home. The children are either affected or infected with the HIV virus. The local church and well-wishers help Ms. Sawo and her

family run the home. The home also has 5 employees who serve as cooks and caretakers.

The home is committed to providing a caring environment for children, where they find safety, health and a new family. The children attend local primary and secondary schools where after the classes they come back to the home. Children who perform well in their national primary examinations are admitted in national schools.

The children depend solely on Ms. Sawo’s family resources and well-wishers for their food, clothing and school fees. As a way of obtaining food, the home hires farms and plant crops to get food for the children’s use; the home also hires tractors to plough the farms and during the school holidays, the children assist on the farms.

The home was the beneficiary of this year’s Corporate Social Responsibility activity.



*The children introduce themselves during the CSR activity*



## Challenges faced by the home

### Accommodation

Some beds are broken and don't have mattresses and two or three children share one bed.

### Sanitation

The toilets and bathrooms have broken doors, are almost full and need an exhaust service.

### Scarcity of food

At their age, the children need to eat a balanced diet to grow properly but because of scarcity of food the children feed on small amounts of food hindering their healthy growth.

### Unfenced compound

The home is not fully fenced but the owner has plans to plant trees around the compound and erect a fence for security purposes. To initiate this, the General Manager Finance and Administration Mr. Stephen Ithili together with Regional Manager Kitale region, Acting Regional Manager Nakuru, staff and invited guests planted trees at the home's entrance.

## KEPHIS contribution to the home

The Corporation donated 20 bags of maize, blankets, bed sheets, sanitary towels, firewood, mattresses and slippers.

Mr. Ithili emphasized that KEPHIS would continue to assist the needy in society, particularly the children and the elderly in line with the KEPHIS CSR guidelines.

The event was graced by the Deputy Commissioner Trans Nzoia County Ms. Rebecca Muturi, County Director of Children, Ms. Esther Wasike and a representative from the Gender Office who appreciated the moral support and generous giving by KEPHIS. **KN**



*Bags of maize donated to the home*



*Sanitary towels, slippers, blankets and mattresses presented to the home*





*Mattresses*



*Firewood for cooking for the children*



*Cement donated to the home*

*Blankets being given to the children*





# International Flower Trade Expo Cements Nairobi as Key Flower Trade Hub

By **Janet Odongo**  
Phytosanitary and Bio-security Office

**Nairobi** – The International Flower trade Expo 2015 that was held in Nairobi recently, cemented Kenya as the key hub for the growth, development and export of flowers in East and Central Africa.

The event that was held at Visa Oshwal Centre was officially opened by Kenya's First Lady, Her Excellency Margaret Kenyatta who emphasized the importance of flowers in adding value to life's events. Mrs. Kenyatta was also presented with a bouquet of flowers, christened Lady Margaret, that has been bred for ten years. IFTEX serves all segments of the Kenya flower value chain, from breeders, propagators, growers, cargo, government regulatory agencies and suppliers.

In 2013-2014, the floriculture sector earned Kenya approximately KES 48 billion, roughly half of the KES 100 billion the country earned from the export of horticulture (flowers, fruits and vegetables).

KEPHIS assures the quality of flowers for export, ensuring they are free of pests and diseases. The Corporation's Naivasha and Timau offices serve the flower growers in those regions. **KN**



*The First Lady, Her Excellency Margaret Kenyatta, reading her speech at the official opening of the IFTEX 2015*



*A variety of flowers exhibited at the IFTEX 2015*

# Coming Up

## Botswana Inspectors Training by The Centre of Phytosanitary Excellence (COPE)

The Centre of Phytosanitary Excellence (COPE) will for one month train plant and animal health inspectors from Botswana on improving compliance on imports and exports regulations. The training will be in conjunction with the Ministry of Agriculture, Botswana and Food and Agriculture Organization (FAO), Botswana. The objectives of the training are to equip and enhance the capacity of plant and animal inspectorate staff of Botswana to improve on their certification skills. Three staff will be trained who will then train others on the requirements. In plant health, the trainees will learn about:

- International treaties and standards of phytosanitary systems
- Introduction to Pest Risk Analysis
- Introduction to Phytosanitary Import Regulation and Export Certification Systems
- Introduction to Pest Surveillance and Diagnostics
- Seed Certification Procedures

KEPHIS is the secretariat of COPE and conducts training in liaison with the University of Nairobi, and other collaborating phytosanitary regulatory institutions in East Africa.

## Nakuru National Show at ASK showgrounds

To take place between **30th June 2015 to 4th July 2015**. Come to the KEPHIS stand and learn about certified seed, our internationally accredited seed laboratory. Plant variety protection and our phytosanitary inspections.

## Nyandarua field day

To be held on 24th July 2015 in Tumaini

KEPHIS in collaboration with stakeholders continues to sensitize farmers who grow export produce on good agricultural practices and how to adhere to global export requirements. The Corporation together with the County Government of Nyandarua, Ministry of Agriculture, Livestock and Fisheries and Horticultural Crops Directorate will engage farmers on these requirements. Farmers in Nyandarua grow snowpeas, sugar snaps and flowers for export.

**Trainer of trainers training** on Quality Management for Certification of Fruits and Vegetables for Export Markets from **6th-10th July 2015** at KEPHIS headquarters. The training aims to enhance front line implementation and understanding of the requirements and competencies in implementation of standards, Application and Quality Management to Achieve Food Security and Effective Management of Maximum Residue Limits(MRLs) in the export of vegetables.

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