



National Farmers Awards 2016

Orvego® The Muse of beauty

Confidence and convenience
FOR THE GROWER
in the control of
Downey mildew.

BASF
We create chemistry

NEW! Introducing



EthylBloc™ Sachets

- Reduces ethylene-induced flower, bud and leaf drop
- Flowers are more vibrant and last longer at retail
- Ready to use at time of shipping
- Non-toxic and environmentally friendly



Now available in Kenya
in a convenient sachet

For more information, call . . .



www.floralife.com



Ethylene Damage of Flowers Attributes to Upwards of 30% Flower Loss

Flower industry experts estimate as much as 30% of all flower loss is a direct result of ethylene damage, due to either internal or external sources of exposure. Ethylene, an internal gaseous plant hormone, profoundly influences the growth and development of plants. It acts at trace levels throughout the life of the plant by accelerating wilting, regulating the opening of flowers, and the abscission (or shedding) of leaves and flower petals. Ethylene is produced from essentially all parts of higher plants, including leaves, stems, roots, flowers, fruits, tubers, and seedlings. Its production can also be induced by a variety of external aspects such as mechanical bruising or environmental stresses. Flooding, drought, chilling, wounding, and pathogen attack can induce ethylene formation in the plant. Ethylene produced from external sources such as other flowers, banana-ripening rooms in supermarket distribution warehouses, propane heaters, forklift fumes, bacteria, and even cigarette smoke also can have devastating effects on flowers when exposed.

Cut flower plant responses to ethylene:

- Stimulates leaf and flower biological aging, called "senescence"
- Inhibits stem and shoot growth
- Induces leaf, bud and flower shedding, commonly known as "abscission"
- Stimulates epinasty where the leaf petiole grows out, leaf hangs down and curls into itself
- Induces a rise in respiration in some flowers which causes a release of additional ethylene. This can be the one bad flower in a flower box spoiling the rest phenomenon, affecting the neighboring flowers
- Affects geotropism, the turning or growth movement of the flower stem in response to gravity
- Inhibits stomatal, or pore, closing found in the leaf and stem epidermis that is used for gas exchange, stimulating flower aging



Rose - Flower Aging
Untreated for Ethylene



Rose - Treated for Ethylene



Orchid - Flower Drop
Untreated for Ethylene



Orchid - Treated for Ethylene



Carnation - Inward Rolling of Petals
Untreated for Ethylene



Carnation - Treated for Ethylene

Ethylene will shorten the shelf life of cut flowers and potted plants by accelerating floral senescence and abscission. Flowers and plants that are subjected to stress during shipping, handling, or storage produce ethylene causing a

significant reduction in floral display. Some examples of flower types which are more affected by ethylene damage include rose, orchid, carnation, alstroemeria, stock, delphinium, phlox, and freesia.

Ethylene can cause significant economic losses for florists, markets, suppliers, and growers. Floralife has long been involved in developing ways to inhibit ethylene production in flowers to keep flowers fresher longer, through the commercialized innovation of EthylBloc™ Technology. By inhibiting ethylene sensitivity, flowers don't respond to ethylene produced internally or from external sources, far increasing the quality, freshness, and profits of flowers overall.



Germany / Deutschland
Salm-Reifferscheidt-Allee 31
D-41540 Dormagen
tel +49-(0)2133-47 93 59-0

The Netherlands / Nederland
Nobelstraat 16 BU 6
NL-2693 BC 's-Gravenzande
tel +31 (0)174 440 904

United Kingdom
82 Culley Court
Peterborough, PE8 6HL
tel +44 (0) 7718 106 809

Kenya
Off Mombasa Road
KE-Nairobi
tel + 254 (0)20 25 16 265

info@floralife.eu • www.floralife.com

North America / Asia / Europe / South America / Africa / Australia / Central America
Oasis Floralife Central Europe, GmbH



South Africa President Jacob Zuma and his host Kenyan President Uhuru Kenyatta on a guided tour in October by Robert Kotut, a director of Karen Roses near Nairobi

- 10** De Ruiter creates genetics for low altitude T-Hybrid Mix
- 6** Kibo Motorcycles: Designed in Holland, Made in Kenya, Built for Africa
- 14** You can manage your caterpillar if you know it
- 18** National Farmers Awards 2016
- 25** BASF launches Farming, the Biggest Job on Earth campaign to address growing demand for food on dwindling land
- 34** Arysta trains eyes on healthy crops with three new agrochemicals
- 36** The sign language of Oserian Flowers
- 38** National Traceability System breathes new life to Kenya's horticulture industry
- 40** Nematodes infestation on the rise
- 44** Tuta Absoluta developing resistance
- 45** Tuta absoluta: use male lure for mass trapping
- 46** Exporters Directory



25 Carles Amengual, Managing Director BASF East Africa

Kibo Motorcycles: Designed in Holland, Made in Kenya, Built for Africa

Motorcycles have become a popular mode of transport in Kenya over the past years. But even before that trend started, farmers have used their “farm bikes” for all kind of activities on and around the farm. As we all know, the horticultural sector in Kenya has strong links with the Netherlands. Now there is Kibo: a new motorcycle brand that has strong links with the Netherlands too. This rugged machine has a lot of appeal to farmers in Kenya.

A motorcycle Designed in Holland, Made in Kenya and Built for Africa? How did that happen? In 2011, Dutch entrepreneur Huib van de Grijspaarde saw the need to develop a motorcycle for the African market. This has evolved into a new brand that is producing the first ever motorcycle especially developed for Africa: the Kibo K150. The vision of Kibo is to unlock economic opportunities by providing safe and affordable mobility.

The Kibo motorcycle is extremely strong, fuel efficient and easy and affordable to maintain. Our target market are companies, NGO's and government organisations. Since the Kibo is brought to the market, we have received very positive feedback from the Kenyan farmer communities. We are extremely happy that the Kibo K150 is perceived as the ideal farm bike by all farmers that have tried it. Our aim is to be the market leader in motorcycles used by businesses. With a payload of 250kg, the Kibo provides flexible and versatile transportation that will save costs to almost any company.

Being a social entrepreneur, Mr Van de Grijspaarde wants to maximize the positive impact of Kibo on Kenyan society. That is why the Kibo motorcycle is assembled fully in Kenya and is therefore officially the first “Made in Kenya” motorcycle. Everything about the bike breathes strength and durability and the bike is designed in such a



way that it is extremely easy to maintain with a limited toolbox. Just like the horticultural sector, it is all about local value addition at Kibo. We are fully compliant with the EAC Local Rule of Origin. This means that the Kibo motorcycles that are produced at our facility along Mombasa Road in Nairobi will be exported to other EAC countries fairly soon. We hope to set an example and provide Kenya with yet another successful export product.

Why is the Kibo ideal for farmers? First of all, it is a dual use bike. This means that it has been designed to perform excellently on both off road conditions as well as on tarmac. The Kibo has a state of the art external frame that is very strong and protects both the machine as well as the rider. The frame also offers many possibilities to safely transport cargo. Kibo is also known for low costs of ownership, with low fuel consumption (42 kilometers

per liter), affordable spare parts and efficient and fast after sales service. Because we are doing a full assembly of over 300 parts, we can safely say that our warehouse is literally packed with spare parts. Safety is very important: Kibo offers a wide range of training options, ranging from beginner training to advanced off road training. We supply gear and accessories ranging from CE certified helmets to fleet management solutions.

Last but not least, the Kibo is designed by engineers that are themselves crazy about motorcycles: this has resulted in excellent riding characteristics and it is very comfortable with abundant passenger and cargo space.

You may think after reading this: I want one for my farm! Get in touch with us via www.kibo.bike and visit us at the Naivasha Horticultural Fair - we will be happy to organize a test ride for you!



KIBO K150 2016 MODEL

Kibo pays for **VAT.**

2016 introductory price: 342,000.- incl. VAT

Now only: 295,000.-



EDITORIAL TEAM

Arim Ogolla - USAID-KAVES
Catherine Riungu - HortiNews
Margaret Muchui - FPEAK
Jane Ngige - Kenya Flower Council
Lusike Wasilwa - KALRO

MANAGING EDITOR

Catherine Riungu

EDITOR

Bob Koigi

CONTRIBUTORS

Consolata Mutua - Kenya Biologics
Jane Ambuko - University of Nairobi
John Kihia - Floralife Africa
Joyce Kimani - HortiNews
Nelson Maina - Elgon Kenya
Ruth Vaughan - CropNuts
Vincent Cheruiyot - HortiNews

MARKETING

Musyimi Ireri
Christine Njogu

PHOTOGRAPHY

Allan Muturi
Anita Nkirote

DESIGN

Samuel Irungu

|| HORTISPOT ||

The year that was

In what is increasingly rubberstamping Kenya as a favourite destination for high-level international fora, 2016 has brought major activities to Nairobi attesting to the country's leading role in global horticulture.

Apart from hosting major industry events that saw thousands of people visit the country the impasse on what remained the biggest threat to the sector was settled following a deal with the European Union that brought to an end more than a decade-long discourse on Economic Partnership Agreements. All indications are East Africa and the EU economic blocs are headed to putting pen to paper in February 2017. The successful outcome of the EPAs averted a return to a gridlock in 2014 that cost the industry KSh100 million a week in taxes. This year will be remembered for Kenya's resolve to improve relations with its key horticulture buyer the EU where it commands 40 per cent of the flower market share.

The fifth edition of the International Flower Trade Show (IFTEX) organized by HPP took place in June and brought over 3,500 visitors drawn from more than 50 countries spread across continents. It is an annual fete that has transformed the buying and selling of flowers, allowing global buyers to meet first hand with buyers in an arrangement that has had marked impact on the sale of flowers and diversification of markets. IFTEX 2017 will take place June 7-9.

Still on exhibitions, Kenya also opened doors to another 3,500 guests during this year's Naivasha Horticultural Fair, bringing together players to celebrate innovations while taking stock of a sector billed as key in achieving mid-level economic status, Vision 2030.

And for the first time, Kenya opened its doors to over 100 delegates drawn from 16 countries attending this year's International Summit of the World Flower Council. It was the first time the event was being held in Africa. The meet, which fosters world peace by sharing the beauty of flowers while exchanging ideas and techniques on care and handling of flowers, was pivotal in lifting the profile of Kenya flowers in the global arena as it allowed delegates to witness first hand by visiting flower farms, the level of investment and attention to detail that makes the Kenyan flower second to none.

The launch of the USAID- funded National Traceability System for Horticulture in September to enable tracing of produce from farm to folk as proof of adherence to Maximum Residue Levels of pesticides and observance of Good Agricultural Practices came as a great relief to growers and exporters, coming at a time the industry was grappling with increased interceptions in Europe rendering more than 20,000 small growers ineligible to produce for export. The system is a mark of confidence in Kenya produce.

To crown the country's efforts in keeping stock of the safety and image of its produce in the export market, Kenya also hosted the International Phytosanitary Conference. The forum allowed delegates predominantly phytosanitary experts across the world to share their experiences, challenges and concerns deliberating pertinent emerging phytosanitary issues such as pests and diseases, trade and plant exports.

With all these gains we step into 2017 with high optimism that despite being an election year for Kenya, ours can be business as usual. We learned costly lessons in 2007/8 when the industry lost an estimated Ksh 10 billion due to interruptions in farm processes and logistics, this must not be allowed ever again. Our Horn of Africa neighbour, Ethiopia, is suffering the brunt of violence that has seen multi-billion investments in the horticulture industry reduced to ashes and the resulting investor apathy, loss of jobs and livelihoods. Kenya has played a major role in Ethiopia's growth by providing a benchmark, expertise and a base for global suppliers of inputs and all this goodwill has gone to the dogs. This is why we must jealously guard our industry by doing everything possible to embrace peace.



HortiNews

is published six times a year by Karuri Ventures Ltd and circulated to personnel in the horticultural industry, foreign missions and Kenya embassies abroad, extension officers in the Ministry of Agriculture, research officers and suppliers of agricultural inputs and services.

© hortinews 2016

KARURI VENTURES LTD

Nature Hse 3rd Floor, Suite 522,
Tom Mboya St.
P O Box 1066 - 00518 Nairobi,
Tel: + 254 722848970,
+254 710 628 440
horticulturalnews@gmail.com
news@hortinews.co.ke



Horticultural News



@hortinews

www.hortinews.co.ke

HAPPY NEW YEAR!

Biobest NV set to acquire Real IPM Kenya Ltd

Biobest and Real IPM Kenya announced that they have entered into an agreement with a view for Biobest to acquire Real IPM Kenya Ltd. Real IPM is a leading company in biological control in East Africa. Its broad market presence ranges from the export driven flower market to the smallholder cereals farmer. Biobest, headquartered in Belgium is a leading global player in pollination and biological control. It will now get a strong foothold in a part of the world where it has been absent until today. Both companies emphasize the synergies that the transaction will bring. The transaction is due to close in early 2017, subject to authorization by the Competition Authority of Kenya and other regulatory approvals.

“We started Real IPM Kenya about 15 years ago,” say Henry Wainwright and Louise Labuschagne. The Company’s co-founders, owners and directors. “We passionately wanted to bring affordable and effective biological solutions to African farmers. Thanks to a strong and committed team, a broad product portfolio with several beneficials and unique biopesticides, and a diverse and loyal customer-base in Kenya, Ethiopia, Tanzania, South-Africa and beyond, we can be proud of our success. Opportunities for further growth abound, but for us the time has come to start preparing for a phase in life during which we can dedicate more time to our family. We were looking for a corporate partner that would be sensitive to our personal and corporate values, and that we can trust to further build on the strong foundations that we have laid. We are very confident that Biobest is the right partner for us.”

Henry Wainwright adds: “I will continue on as General Manager of Real IPM Kenya for the next two years to ensure continuity and a seamless transition. I am sure this transaction creates opportunities for my team to further realize its potential as well



Real IPM group photo

as for Biobest to successfully contribute to sustainable farming in Africa. Our existing and future customers and distributors will benefit from the synergies represented in this alliance.”

Jean-Marc Vandoorne, CEO of Biobest, comments: “Our goal is to serve the needs of growers on a worldwide basis in our strategic crops. East and Southern Africa is a hotspot for floriculture and horticulture, but also for citrus and other open field crops. With Real IPM Kenya we immediately play in the premier league in this part of the world. We very much respect the position the company has built and are therefore grateful that Henry is prepared to continue to take the helm. We are confident that we can help develop Real IPM’s product offering based on our own product portfolio and R&D pipeline. Together we can bring even more complete and more effective solutions, in line with the needs of the African farmer. The product portfolio of Real IPM Kenya, and its partner company Real IPM UK, is also complementary to ours in other markets. Finally, it is a major competitive advantage to have a strong production infrastructure in East Africa. Local customers enjoy good quality and competitive prices in view of the excellent

production conditions for biocontrol agents in this region. That explains why it is really difficult to be strong in the local market without local production.”

Biobest, headquartered in Belgium, a leading player in bumblebee pollination and biological control offers a complete range of natural crop care solutions. The company takes pride in providing growers with tailor-made advice to achieve their economic and environmental goals.

Real IPM Kenya, headquartered in Thika just outside Nairobi, Kenya, is the foremost biocontrol solutions provider in Kenya and the larger Eastern Africa and seeks to design and implement robust IPM programs which actively replace pesticide inputs and improve crop quality and yields for growers and consumers. Real IPM’s transaction advisor is BlackGold Investments, a Kenyan advisory and investments firm.

**For more information,
The Real IPM Co. (Kenya) Ltd
P.O. Box 4001-01002 Madaraka, Thika,
Kenya
Tel +254 (0)725 806086,
General enquiries: info@realipm.com
Sales orders: sales@realipm.com**

Arysta LifeScience introduces new crop biostimulant, fungicide and nematocide



Mr. Edwin Inziani, Product Development, Regulatory, and Marketing Manager East Africa

By Joyce Kimani

In a bid to boost farmers' yields Arysta LifeScience Kenya has introduced three new products in the country. Siapton 10 L, Fungaflor 100 EC and Metafur 900 EC are distributed by Elgon Kenya Limited. They are available in 5 litres, one litre and 20 litres respectively.

Siapton 10L

Siapton with a composition of natural hydrolyzed proteins is ideal for tropical fruits, citrus, tea, coffee, vegetable, industrial and ornamental crops, cereals, fertigation and rooting treatment of the cutting of trees.

Speaking during the launch, Richard Gitonga, Product Development, Regulatory and Marketing EA, said the bio stimulant was ideal for rooting, flowering, fruit sizing, stress recovery and suppression of nematodes.

"It helps improve yield in quantity and quality with a great post transplanting starter effect. It also helps mitigate yield losses under stress conditions," said Mr Gitonga adding that genes induced by stress conditions are boosted by Siapton for quicker recovery from stress.

"It is composed of key enzymes involved in nitrogen metabolism which in turn leads to improved growth and yield." He added.

Mr Gitonga said Siapton is ideal for organic farming as farmers had become keener to healthier and better crops.

"It is applied either by foliar or root application at 7 - 15 days interval or during critical crop development stages including the rooting, flowering and fruit sizing. It can be done before and following stress situation of plants," he said.

Mr Gitonga added that they had conducted test on various farms and Siapton did not present any observable crop injury to orchid plants at all tested dilution rates in the three trials conducted.

Eric Mutua, from Everest Farm, said that they had carried out various tests using the stimulant and had experienced its benefits.

He added that the crop appearance was substantively affected by the different level and all the treatment plants resulted in higher percentage of flowering compared to the ones that were not.

"We also had higher length of flowering shoot and a higher number of flowers. The bud size was also improved in some of the varieties," he said.

Fungaflor 100EC

The introduction of Fungaflor, a fungicide with curative and protectant properties is also targeting flower growers in a bid to improve production by mitigating losses due to Powdery mildew and Botrytis both at field level and through the cold chain.

Fungaflor is a high quality emulsifiable concentrate formulation that contains imazalil making it one of the best cures at the onset of the disease.

Mr Gitonga said that it's ideal for protection against botrytis and powdery mildew for roses in small and large scale farming. "It is also useful in the control of alternaria, downey mildew and rust as it is fully systemic. This means that all active ingredients will target all plant parts when sprayed," he said.

He pointed out that it has no side effects on beneficial insects and bees.

According to Maurice Muok from Oserian Development Company which carried out the tests, the farm had witnessed the benefits of Fungaflor 100EC on plants. "Control against botrytis and Powdery mildew was amazing," he said.

Metafur 900EC

Metafur is manufactured from bagasse, the fibre of sugarcane waste after sugar extraction. It is a powerful nematocide against a wide range of parasitic nematodes, it moves only within the root system. The product has flexible application patterns and it can be applied at planting and post planting phases of the crop cycle.

"The greatest advantage is that it can be applied throughout the growing season and it's also less toxic compared to the other common nematocides," said Mr Gitonga.

It's an organic and biodegradable product that leaves no harmful residue in the plant or in the soil.

"The product is unique as multiple applications are possible," he said.



DeRuiter
creating flower business



De Ruiter creates genetics for low altitude T-Hybrid Mix

With a century of breeding experience globally and over 20 years in Kenya, De Ruiter is the oldest rose breeder in East Africa. The company considers rose farming as serious business 'Every day is Valentine's Day' and we stick by our motto 'Creating Flower Business'. With offices in the Netherlands, Kenya, Ethiopia, Colombia, Ecuador and China the company is truly a global brand.

De Ruiter (E.A) breeds bespoke rose varieties at its 4ha farm on the shores of Lake Naivasha which are then grown commercially on over 60 farms throughout Kenya, Tanzania, Uganda, Ethiopia and newly emerging Rwanda. Steady growth in sales year on year sees De Ruiter selling over 100ha of varieties annually.

The company has recently been striving to increase its market share in the low altitude T-Hybrid varieties and feels it has created enough synergy at this level with +5cm head sizes, +60cm stem

lengths (ensuring auction marketability), excellent vase life performance, good pest & disease resistance & 140 stems p/ sqm production figures.

Varieties such as Kamala (Red), Militza (Pink), Aisha (White), Lovely Rhodos (Light Pink), Pink Rhodos (Hot Pink), Navarra (Bi-Pink), Pink Ice (Pink), Opala (White/Cream), Royal Flush (Orange) & many Bi-Yellow's.

This will provide the market with new lines and an improved quality and saleability of larger head sizes as demanded by most of the retailers and consolidators during the dynamic market changes and new demands

It is estimated that during peak times like that of Valentine's Day & Mother's Day, one in three roses sold globally, earning Kenya in excess of Ksh75 billion annually usually passes through De Ruiter's stringent breeding program.

What has contributed to this tremendous growth is an ever increasing competitive market which De Ruiter embraces with efficiency and delivery

of strong, desirable varieties in a transparent manner, availing critical market information such as price changes & competitive rate structuring meeting grower's needs.

De Ruiter's selling point revolves around several key aspects but top of the list is our unique and agronomical approach where we update our growers with the latest advice to boost their production to earn more per stem at the market. De Ruiter believes in marketing strategies of its wide range of varieties in the world's largest flower auction in the Netherlands, long shelf life, which are less prone to diseases and pests has also contributed to their prominence in the local and international markets.

With a continuation of rising production costs in an ever increasing competitive market, rose growers are relying more than ever on breeder's knowledge and experience to produce better rose varieties year on year therefore De Ruiter is considered a breeder truly 'Creating Flower Business'.

Edward Agg-Manning - edward.agg.manning@deruiter.com

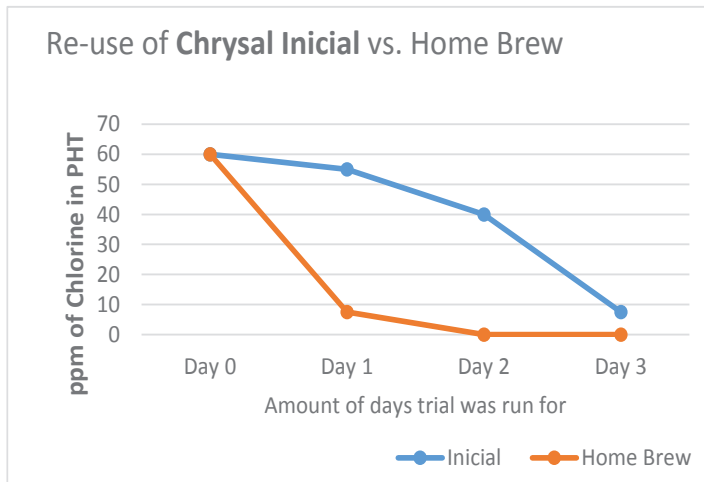
Guy Keeble - guy.keeble@deruiter.com

Fred Okinda - fred.okinda@deruiter.com

Chrysal 'Has' the Solution – Chrysal Inicial

Rehydration for flowers is essential! **Chrysal** has come up with a “**First Drink**” solution for every Rose. With **Chrysal Inicial**, you will be assured that your Roses get the cleanest, purest post-harvest water treatment a flower needs. With its simple mixing formulation, flocculating capability and slow release chlorine **Chrysal Inicial** is the thirst-quencher for all flowers.

We all know that water management can be difficult, however with **Chrysal Inicial** it doesn't have to be. You can re-use **Inicial** for up to 3 days, allowing for water saving without having to worry if your flowers are being hydrated enough. It cleans, regulates pH and keeps bacteria at bay all at the same time, ensuring that your Roses get the best possible uptake of water within the first hours of Harvest. The results speak for themselves – see the graph below which shows how the slow releasing chlorine of **Inicial** allows to keep you PHT **free of Bacteria** while saving water usage at the same time.



Detailed Analysis:

Day 0 – This was the first day that the flowers were harvested. They were placed into a bucket of fresh **Chrysal Inicial**. From the greenhouse they were taken to the Packhouse for pre-cooling. After a period of 4 hours the flowers were removed from the bucket and graded, The **Chrysal Inicial** bucket was then returned to the cold store overnight. This allowed the **Chrysal Inicial** PHT to cool down over night before being re-used the next day.

Day 1 – this is the second use of **Chrysal Inicial**. With a similar protocol to Day 0, the bucket of Inicial was removed from the overnight cold store and taken to the Greenhouse. Flowers were placed in this bucket and transported to the Packhouse for precooling. After 4 hours the flowers were removed from the bucket for grading and the bucket itself was returned to the cold store overnight.

Day 2 – this is the third use of **Chrysal Inicial**. Again following the same protocol as Day 0 and Day 1, the bucket was removed from the overnight cold store, where it was taken to the Greenhouse. Flowers were placed in the pre-cooled PHT of Chrysal Inicial and then brought to the pack house. At this point the bucket, which had now been used for a total of 3 Harvests and over 3 days, would be discarded and a Fresh batch of **Chrysal Inicial** would be used for another 3 days.



TRY FOR YOURSELF –

CONTACT CHRYSAL AFRICA AT

James.cocker@chrysal.co.ke

TO GET YOUR **FREE** SAMPLE OF INICIAL. GIVE YOUR FLOWER THE RE-HYDRATING SOLUTION IT DESERVES!

Inicial

Chrysal Inicial reduces problems associated with use of “Home-Brew” post harvest treatments



In the following ways:

- It's an all in one post-harvest treatment for better vase life and opening – maintains pH for optimum up-take, flocculates for better water quality and controls bacteria.
- pH of the ready to use solution: 5.0—6.0
- Inactivates fine solutions and neutralizes harmful organic and inorganic substances, allowing the flower stems to fill up with clean water
- Simple and easy to dose (0.3g/l).
- Suitable for all water types – ideal for the Kenyan situation
- Most active and stable form of Chlorine – tests show solutions can be used for 2-3 days.
- Minimal possibility of damages usually associated with home brews (Aluminium toxicity, Chlorine burns)
- Suitable for all cut flowers
- Ready to use solution contains: Aluminium Sulphate (20ppm), Active Chlorine (50ppm).
- Residual solutions may be disposed of by draining into the sewer system

That's the beauty of Chrysal

CHRYSA AFRICA. P.O.Box 78219, 00507, Nairobi, Kenya; No. 7 Sunflag Industrial Park, Mombasa Rd, Mlolongo,
Tell: +254 (0)20 8082517/8, Email: info@chrysal.co.ke or james.cocker@chrysal.co.ke

The Beauty of Chrysal

You can manage your caterpillar if you know it

By CONSOLATA MUTUA

It seems that we are not over with Caterpillar management in flowers. Initially we were to deal with one major moth of the Roses the *Helicoverpa armigera* but now, much more are evolving every other time! This makes it even harder to control as differentiation of the moth species is difficult to growers. It is no longer time scouting report required a scout to just fill in 'caterpillar' but now due to different moth species in our greenhouses which need different methods of control growers need to state the moth species at hand. Kenya Biologics has been thus on the front line in developing and availing attractants/pheromone traps in order to help the growers meet this need.

We have been therefore closely working with growers to find out what are the new moth problems in roses. *Duphonychelia* and False codling moth have now been confirmed to be pests of economic importance to rose growers. These pests are not only a concern due to the economic damage they cause but also giving growers sleepless nights due to the fact that they are of concern to phytosanitary bodies and that detection on a shipment will lead to interception hence leading to greater losses. Demand by the market to reduce pesticide use on flowers leaves growers with limited options for moth control too. For effective control of these pests one needs to understand their Identification and behaviour.

False codling Moth

When chilli growers were battling with the pest which was noted in 2014, little did anyone know it was going to visit the Rose crop. FCM has also been a pest of the Macadamia, Avocado as well as Citrus fruits. It is listed as a notifiable pest.

First when noted in Roses, growers



gave it different names as they were not sure of the Enemy. It is observed to cause damage on the flower bud where the larva enters into the bud leaving behind its frass covering the entry hole on the outside. It then burrows downwards feeding on the inside of the stem misleading the observer to call it "STALK BORER". On the cut points it is noted to enter and burrow inside leaving tiny particles of the stem content pilling on top of the cut point, as such cut point dries up and no new shoots can be realized from such infested points – damaging!! Most challenging thing with FCM in Roses is that the pest pressure does not look high on visual observations as it is not easy for growers to note and estimate the loss due to dead cut points as harvestable stems and new shoots still stand thus one may underestimate the economic loss. This is even worse if one does not know whether the pest is present in the greenhouse. However with a close look after one understands how the pest causes damage and behaves, then you will agree with me it is damaging and that quick action is vital. Monitoring with CRYTRACK from Kenya Biologics is the first step to the effective management of False codling moth.

Management of False Codling Moth

Due to the fact that the eggs are very small and difficulty to detect by visual inspection of crop, use of monitoring tools is key to early detection of the pest. Moths also are difficult to be noted by scouts as they are nocturnal. Use of CRYTRACK from Kenya Biologics has been helping Chilli growers and fruit growers to make out early detection of FCM as well as use of the tool for Mass trapping of male FCM a strategy that enables growers determine FCM presence and also help manage the pest population by holding captive male FCM through continued mass trapping. Kenya Biologics CRYTRACK for FCM management in chillies has been noted to reduce the pest by over 70%.

Therefore, it is important to note that the key to IPM of the pest is firstly Monitoring with CRYTRACK for early detection then Mass trapping of the male FCM. Foliar applications of insecticides could be done but control may be difficult as it is not easy to kill the larvae once inside the bud or stem.

Let's Know and Recognise the Enemy (FCM)!



Stem burrowed by FCM



Cut point affected by FCM

Duponchelia fovealis

This is also another moth whose larvae cause economic damage to the leaves and flowers of ornamental plants, thereby reducing their quality and cosmetic value.

The wing markings (yellowish-white transverse lines and pronounced “finger” that points towards the back edge of the wing and the position adopted by adults at rest (males curve their abdomen upwards) is quite distinctive of this species.

It is important to note that for effective control of these moth pests, early detection is very important. This is so because; it is very difficult to manage moths especially if the population has been allowed to build up over seasons. It is much easier then to ensure you keep moth numbers low from the start than to control a well established population. Kenya Biologics has been in the fore front in providing the growers with necessary tools to be able to manage moth populations.

With our extensive range of monitoring tools, growers are able to detect different moth species early and hence take corrective actions before pest build up. Due to the increased number of moth species in roses, Kenya Biologics has provided the growers with FEMTRACK which targets more than one moth species.

What is FEMTRACK?

FEMTRACK is a complete system for trapping female and male moths. The system consists of the FEMTRACK lure, a delta trap and sticky paper. FEMTRACK will attract different species of moths; *Helicoverpa*, *Spodoptera*, *Duponchelia* and other moths. It is effective and catches moths in the ratio of 70% females and 30% males. This means you catch female you stop egg laying instantly. This reduces caterpillar larvae hence damage on crops significantly.



Duponchelia fovealis moths on a FEMTRACK trap



FEMTRACK trap

Holistic Approach to *Helicoverpa armigera* Management

Kenya Biologics combination of FEMTRACK and HELITEC is now providing the growers with a holistic approach to the management of *Helicoverpa armigera*. Once you detect *Helicoverpa* in your trap, start using HELITEC as a Prophylactic Preventative spray. Usually caterpillars hatch out of the eggs by first chewing the shell of the egg to make an opening to the outside. If a caterpillar chews an egg shell sprayed with HELITEC, it gets infected with the *Helicoverpa armigera* nucleopolyhedrovirus (HearNPV) hence it dies out of infection before it feeds on the crop. HELITEC and FEMTRACK provides efficient and cost effective control of pest, compatible with other IPM programmes, leaves no MRL and does not build resistance to the pest thus user friendly.

EXPLORE THE BENEFITS OF OUR PRODUCTS

www.kenyabiologics.com



We are providing a holistic approach to caterpillar management

Combine FEMTRACK for monitoring and mass trapping of moths with prophylactic applications of HELITEC for egg and early instar control of *Helicoverpa armigera*.



KENYA BIOLOGICS
Green, safe, and cost-effective crop protection

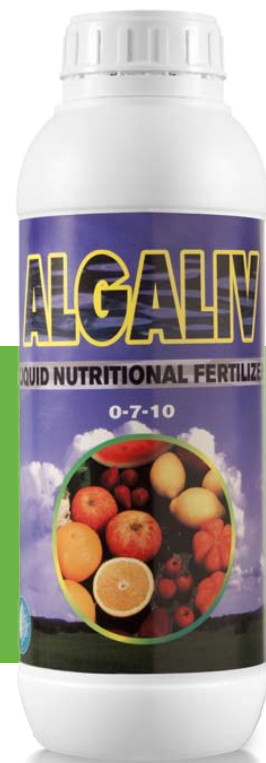


Biostimulants

Our range of biostimulants contain microelements, peptides, polysaccharides and L-free amino acids (biologically active). Their application provides nutritional growth factors to stimulate metabolism in plants. These products are rapidly absorbed by foliage and roots for maximum nutritional benefit with minimal energy consumption.

Bioradicante

Root growth stimulant for increasing harvest yields.



Algaliv
Balanced plant growth stimulant
for maximum nutritional benefit.

For information contact:
products@kenyabiologics.com
www.kenyabiologics.com

Tel:

0713 088 557 (Nairobi region)
0705 210 913 (Mt. Kenya region)

0713 088 558 (Western Kenya)
0710 724 629 (Naivasha region)

National Farmers Awards 2016

Message from the Cabinet Secretary, Ministry of Agriculture, Livestock and Fisheries Mr Willy Bett

The National Farmers Award Scheme is a unique collaborative activity between the Ministry of Agriculture, Livestock & Fisheries and Elgon Kenya Limited. The partnership identifies and recognizes farmers across the country who have excelled in transforming from subsistence to commercially and market-oriented farming

The role of farmers, both smallholder and large-scale, in the development of rural economy cannot be gainsaid. The proportion of sales from small farms to total marketed production has remained stable over the last five years, having been estimated at just over 70 per cent in each of the years.

This indeed means that overall; the bulk of agricultural production is sourced from small holdings across the country. It's in this recognition that the National Farmers Award Scheme was designed jointly by the Ministry and Elgon Kenya Ltd, the main sponsor of the event.

It is therefore important to create forums like this to recognize and honour outstanding talents and minds in the sector. It motivates farmers who have invested in and embraced farming as a business. It is a learning process which provides an opportunity for exchange of information, skills and innovativeness, which in the long run will improve agribusiness.

This award scheme should go a long way in making the farmers and other actors proud of their occupation. I assure all the stakeholders in the award scheme of Government commitment to support them.

The Government appreciates the important role the private sector plays in supplementing its efforts.



The Ministry of Agriculture, Livestock and Fisheries fully supports this Private Public Partnership. I thank the organizers of the event for bringing the farmers together and for identifying the various competitor categories under which their outstanding qualities have been recognized

The competition factors are mainly on wholesome development of farm models in the various agro ecological zones, networking among the sector stakeholders, and technology transfer.

Since the 2013, the Youth, Women, and physically challenged in Agriculture winners have been awarded their trophies and certificates by H.E. the President during the Nairobi International Trade Fair held annually. As we award winners I want to encourage other farmers to work harder to become winners. Those who have not won yet will win next time.

I urge all the stakeholders to join us in making the partnership a big reward to our farmers and all the players in the food chain who deserve recognition for toiling to feed the nation and grow the economy.

I most sincerely congratulate all the 2016 competition winners and also thank all those who supported and participated in the competition process and ensured that the scheme is a success.

Indeed I take this opportunity to congratulate Mr Bimal Kantaria, the CEO of Elgon Kenya Limited for his tremendous support to the scheme.

In addition, I recognize the commendable work done by the Scheme secretariat which has ensured that this joint venture by the National Government, County Governments and the Private Sector is a success for four consecutive years.



ELGON KENYA LIMITED

THABITI[®] FERTILIZERS

UREA: 46%N DAP: 18:46:0 CAN: 26%N NPK: 17:17:17

Why Use Thabiti[®] Fertilizers.



They contain all the registered Nutrients.



Each granule contains the correct ratio of all essential nutrients & reduce the risk of yield loss.



Have the benefit of uniform distribution of all the nutrients across the entire field.

50kg, 25kg & 10kg

The Granulated Fertilisers !!! Power of the Granules...

THABITI[®]
TOSHA



How Kenya's finest in agriculture were honoured this year



This year the National Farmers Awards celebrated its fourth anniversary in a classic example of what public private partnership can deliver

By Bob Koigi

From a Laikipia farm that has become the attraction of many for its unique agrotourism model, to a physically disabled farmer in Kisumu county who has built a name and empire for transforming his land into a green lush of horticulture from his wheelchair, this year's national farmers awards brought together hundreds of the sector's industry players in crowning men and women pushing the envelope to ensure that the country is fed.

Now in its fourth edition, the farmers award, a partnership between agro input powerhouse Elgon Kenya and the Ministry of Agriculture, Livestock

and Fisheries, has grown in numbers interest, players involved and in status since inception to encompass farmers in all the 47 counties and has positioned itself as the ultimate event in the farmers calendar. In the pioneer edition 8,000 entries were received, growing to 16,000 in 2014 and ultimately to over 30,000 in 2015. This year the request for participation was overwhelming.

Putting aside their tools of trade, farmers congregated at the Laico Regency Hotel in Nairobi for a red carpet ceremony graced by the Agriculture cabinet secretary Hon. Willy Bett. 23 winners were honoured in various categories among them women in

agriculture, small scale farms gearing to commercialization and youth.

The patron of the awards the director of Elgon Kenya Bimal Kantaria reminisced the journey so far, lauding the partnership of both the private sector and the government in making the fete a success.

"When we first launched this initiative four years ago, we were inspired by the need to reward a constituency that has toiled for years on end but still remained unsung. We keep talking about food security and the need to eliminate hunger in all its form in our country, but we never appreciate the faces behind making this happen. It is such an honour to see this award having metamorphosed into a force to reckon with in the sector," said Mr. Kantaria.

His sentiments were echoed by Hon. Bett who lauded the efforts of the scheme in transforming the sector and enticing more youth into what has traditionally been described as a poor man's land.

"The expectation is that the National Farmers Award Scheme will remain an exciting and transformative event in the annual agriculture, livestock and aquaculture calendar. In this respect,

I urge all the stakeholders to join us in making this competition based initiative a big motivation to our farmers and all the other actors in the sectorwhodeserve recognition for their commendable efforts towards making this country food secure and economically prosperous," the Minister said.

And when each speaker stood to give his speech, the message of unity of purpose in food production reverberated across the hall amid cheers and ululations of the guests who couldn't hide their excitement at being part of agriculture's crème de la crème.

"The response we have received this year has been tremendous and overwhelming. Participants are telling



Some 23 winners from eight categories were feted this year, marking another milestone in a ceremony that has become the ultimate event in the farmers' calendar

us how excited they are to learn from previous winners and indeed it is so heartwarming to listen to stories of those mentored by these previous winners now emerging winners in this year. It is what we always envisioned. An arrangement where we transfer knowledge among farmers and inspire each other. That is the surebet in spurring crop production and roping in more players into agriculture," Mr.Kantaria.

The pride of the winners and their families was exemplified in the lyrics of a song conducted by the master of ceremony Mr. Sammy Mbau. "If you are a farmer and you know it clap your hand," Mr.Mbau led guests who responded in chorus before breaking into a cheerful jig.

And when the winners were called one by one to the stage amid pomp, colour, and ululations while shaking hands with the guests of honour, pride, resilience and excitement replaced words. "I was born to do this. Nothing is as beautiful as being rewarded for doing what you love. But I know with this win comes more responsibility. That of hundreds of young people looking up to me back at home for inspiration and guidance. This, I feel is the best way to tap more into farming especially the young people," said Jonah Sigei a winner in the youth in agriculture category from

Nandi County.

Michael Ochieng Laro, a winner in the physically challenged persons category agreed. "To be bestowed with the honour of being the best farmer in the country is no mean feat. It is especially very special to me because I will now become the ambassador of disability is not inability tagline. This award is not just mine. It is the inspiration I bring to thousands like me who feel like giving up. I am so grateful to the organizers for recognizing us in the food production agenda," said Mr. Ochieng.

And as the curtains came down on the Kenyan farmers Oscars, industry players while taking pride in having a fete that celebrates their own, also pondered how they would intensify the campaign of bringing even more Kenyans into the food production calling. "I urge our CECs in the winning and participating Counties to use the winners as models to showcase the potential of transforming our agriculture from subsistence practices to commercially and market-oriented farming that is driven by agribusiness," Hon. Betty said.



The Farmers Awards Ceremony while rewarding the industry's finest has also become a talking shop on the industry's milestones and resolve to make the country food secure

Towards food sufficiency with the National Farmers Awards



By Nelson Maina

Four years ago, in the wake of growing demand for food from a ballooning population and growing concern by smallholder farmers over increasing threats to farm production, we at Elgon Kenya set out on a journey to walk with them in their farming pursuit and pat their backs for the hard work.

Our resolve was inspired by the remarkable efforts our smallholder farmers, who form the bulk of the country's producers, put into feeding our nation. Yet they remain unsung even as other professions celebrate the best in their industries.

We launched the annual National Farmers Awards, a fete that rewards the best in the agriculture sector. Four years later, the scheme has grown in stature, influence and impact to levels that have overwhelmed us.

Farmers from even the remotest parts of the country have taken part in the fete with judges of the competition who visited the farmers to grade them returning impressive stories of ordinary farmers surmounting numerous odds to keep the country fed.

But it is the impact that the awards are having right down the farms across the country that is more motivating. After the fanfare and glamour that comes with the award ceremony, the winners have gotten down to work, opening up their farms to fellow farmers for training and consultation. It has set in motion a farming revolution in ways we never imagined. A

winner in last year's awards has gone on to open his farm to students in high schools and colleges with a view to showing them that agriculture is a profitable profession. Such are the tenets we seek to cultivate among our youth who we are counting on in sustaining food production pursuits. It is a vow Elgon Kenya has always made, to ensure that the environment through which food is produced is as enjoyable and exciting to our farmers as possible. It explains a host of innovations we have also rolled out which include the Elgon Kinga Mimea greenhouses customized to our farmers' liking. It costs a fraction of what conventional greenhouses are priced and is guided by the fact that the essence of the greenhouse is in sheeting materials not in the metal structure. This strategy is meant to reach as many smallholder farmers as possible, who are unable to afford the prohibitive cost of conventional greenhouses. While computing the price to charge for greenhouses, companies factor in the cost of materials like metal, sheeting materials among others. This contributes to the high price of greenhouses, a situation Elgon Kenya intends to correct. Farmers look for construction materials, for example wood, which is cheaper than metal and then our team provides a design for the the greenhouses and free agronomic support.

The National Farmers Awards has also taught us the power of numbers and what

unity of purpose can achieve for such a crucial sector of our economy. In a classic example of the gains in public private partnership, we have managed to reach farmers across the country working with the able team from the Ministry of Agriculture, Livestock and Fisheries, receiving feedback and interacting with farmers which has offered interesting insights into what they undergo in food production. The county governments remain our formidable partners in the awards assisting us in reaching out to farmers from even the hinterlands and offering their services at the judging process.

The private sector players have also played a key role in our journey of returning dignity to the soil. We are grateful to our partners BASF, Du Pont, Arysta LifeScience Excel Crop Care Limited and our media partners Seeds of Gold and HortiNews for their unwavering commitment to this course.

The Farmers Awards fete has indeed created soil celebrities, but the bigger picture has and will always remain the need to congregate industry players in looking at innovative ways of producing food at the background of growing population and ultimately demand for food even as agricultural land dwindles. Kenya's resolve to become food sufficient is already winning, with more farmers now farming from a point of information, and we are honoured to be driving this agenda.



Oserian Flowers Managing Director Neil Heilings, Agriculture CS Willy Bett, Elgon Kenya Director Bimal Kantaria, BASF East Africa Managing Director Carles Amengual and Sampath Kumal Excel Crop Care during the gala dinner



Modeled along the human health concept, the plant clinics allow farmers to interact with crop experts who make diagnosis of the sick crops, recommend treatment and advice farmers on best practices, a role that was traditionally played by extension officers

Elgon Kenya in second edition of Farmers Clinic

By Joyce Kimani

It was a complete clinic but with a different kind of patient and doctor.

Farmers strode in with their sick plants to the demonstration farm of the Kenya Agricultural and Livestock Research Organization (Kalro) in Njoro, carrying samples of their diseased plants.

Many were withered up, dried and dying for reasons they could not understand but were willing to see them diagnosed and treated.

The Farmers Clinic, sponsored by Elgon Kenya Limited and Seeds of Gold, was one of the biggest attractions to farmers in Kenya.

In its second edition, the clinic witnessed hundreds of farmers from Makueni, Molo, Njoro, Kisumu, Machakos and Thika, seek treatment from expert Doctors from KALRO, Egerton University

and University of Eldoret.

Both large scale and small scale farmers thronged in the venue from as early as eight o'clock when the gates opened, seeking to exchange views with the crop experts.

The experts, mainly crop nutritionists from KALRO and Egerton University, took time to explain to the farmers on what ailed their products.

The enthusiastic farmers took the well availed chance to ask all the questions that disturbed them, which the experts answered one by one till the farmer expressed satisfaction.

"I have been planting beans for the last three years and despite other farmers harvesting over 90 bags in a one acre farm, the most I get is fifteen bags," said Peter Mungai, a farmer in Thika.

Dr Benard Towett, an expert from

KALRO explained that he was using an old variety of bean seed hence the poor yield. He advised him to try the new Chelalangi seed released recently by the institution, which only took three months to mature unlike the one he was currently using that become ready for harvest in six months.

"Farmers need to understand the new innovations especially in seed development if they are to get good prices and adequate harvest from their products. The clinic offers direct interaction with farmers and on this basis they are able to get free and researched advice on their crops," he added.

John Wafula, a farmer, expressed concern that the invasion of pest and diseases was a major setback into practicing serious agribusiness. He pointed out that the high cost of pesticides had discouraged them from large scale farming. ➔ 24



Elgon Kenya intends to roll out the plant clinics across the country as more farmers express insatiable appetite for information on crop production

Professor Miriam Gaceri Kinyua, from University of Eldoret and also a plant breeder, advised farmers to seek organic farming and utilize the readily available pesticide under careful instructions from the seller.

“With the new technology farmers can just send a text to a mobile application and get all the relevant answers to their queries about anything related to farming,” she added.

On the wheat farming, Kinyua advised farmers to adopt the Eldo Mavuno and Eldo Baraka, which were introduced last season.

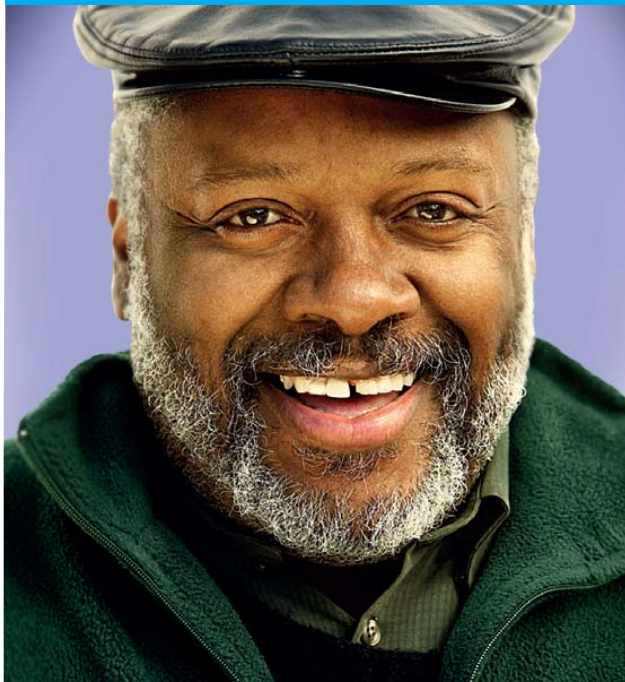
“They are not only resistant to the lethal stem rust but they offer very high yields which I have enjoyed as a farmer too,” she added.

Kinyua pointed out that the new varieties produced 30 – 35 90 kilograms bags per acre and the control of the various diseases including stem rut was inbuilt hence barred any disease from attacking it.

Kinyua said this will save farmers unnecessary costs, pointing out that it cost a farmer at least ksh 10 000 to spray every acre since it involved use of expensive chemicals.

➔28

MORE FOR LESS!



We Congratulate **ELGON KENYA LTD** and the Ministry of Agriculture for successfully rewarding farmers during the National Farmer's Award 2016 for the Fourth Year Running



HEAD OFFICES:
Riverside Drive
Pilot Line: (020) 420 3000 / 0719 090 000
Fax: +254 (020) 445 1247
Customer Care: (020) 420 3222 / 0719 090 222
Email: customercare@primebank.co.ke

www.primbank.co.ke

BASF launches Farming, the Biggest Job on Earth campaign to address growing demand for food on dwindling land

BASF launches Farming, the Biggest Job on Earth campaign to address growing demand for food on dwindling land

The world's leading chemical company BASF has developed a new campaign aimed at celebrating farmers across the globe and supporting agriculture to enable increasing production of enough food for the burgeoning world population estimated to reach 9 billion by 2050. This figure has sent food experts to the drawing board with a warning that current production methods are not compatible with the required high farm productivity.

Dubbed 'Farming, the biggest job on earth,' is a campaign that seeks to assist farmers access latest farming innovations, ensuring soil remains healthy and connecting farmers to high quality, fast maturing drought tolerant seed varieties. "In 1960 the total agricultural areas was 4,300 meter square per head, in 2005 it shrunk to 2200 and by 2030 this will shrink further to 1800. This means that the same parcel of land, has been feeding more people. Population grows, land does not. The only way we can ensure that parcel of land can continue feeding more mouths is make it more productive through innovation," said Gift Mbaya, Sub Hub Manager - Crop Protection & Public Health at BASF East Africa Ltd during the National Farmer's Awards 2016.

"At BASF we create chemistry to equip farmers with the skills needed to improve productivity. It is for this reason that we see Farming as the biggest job on earth because our lives begin with eating. The person who produces the food, the most basic of human needs has the biggest job to do. The future for all of us is in the farmers' hands. Making every seed

count," Mr. Mbaya added.

The campaign is timely especially in Kenya, coming at a time when recent reports have indicated that the country is struggling to feed its population. According to a Global Hunger Index by the International Food Policy Research Institute, Kenya is among 50 countries where levels of hunger remain serious or alarming, with one in every five Kenyans being undernourished and one in four children being stunted, putting the country marginally ahead of conflict-prone Iraq.

"BASF is working with farmers to keep the soil fertile and fruitful with the right amounts of water and nutrients. Stewarding the land and planning for the future" reiterated Mr Mbaya.

Without technology, food production becomes a herculean task explaining why BASF is supporting farmers to access innovation, solutions and experts to enable them to improve productivity, increase efficiency, and stay at the cutting edge of their profession ensuring growing demands are met, year after year.



**"The campaign main focus is on innovation, healthy soil and high quality seeds,"
Carles Amengual Managing
Director BASF East Africa**



**Making every
seed Count.**

**Farming, the
biggest
job on earth.**

All farmers want to produce crops that they can be proud of and across the world, retailers and consumers are increasingly demanding food of the highest quality.

 **BASF**
We create chemistry

BASF East Africa Ltd, Hanover Suite 1A, 14 Riverside Drive, Nairobi, Kenya,
P.O. Box 24271 - 00100 Nairobi, Phone +254 20 4443 454-7

A close-up photograph of a woman's face, focusing on her eyes and lips. She has red lipstick on and is holding a large red rose. The background is a soft, out-of-focus light color.

Orvego[®]

The Muse of beauty
Confidence and convenience
FOR THE GROWER
in the control of
Downy Mildew.

BASF East Africa Ltd.
P.O. Box 24271-00100
14 Riverside, Hanover Suite 1A
Riverside Drive, Nairobi, Kenya
Phone: +254 20 4443454/5/6

 **BASF**
We create chemistry



The clinics have attracted a big number of youth with enquiries on modern farming techniques and how to make money from agriculture

“Most of the farmers spray their crops more than three times with fungicides to deal with stem rust which is not only expensive but tiring,” she added.

Kinyua challenged the farmers to carry out soil testing to analyze the humus content, the acidity levels and its fertility, which was important for good crop production.

She also advised farmers to plant certified seeds, which would yield better result and give them value for their money.

In a surprising turn of events, the clinic attracted many youth who were keen to embrace agriculture as a means of earning their income.

Fredrick Otieno, a field assistant at KALRO, took time to engage them on the newly released varieties of sweet potatoes and their nutritional benefits as a means to woo them into serious production.

Otieno pointed out that many people, in bid to prevent lifestyle diseases like diabetes, arthritis, heart failure and high blood pressure had now opted to substitute bread with the potatoes.

Otieno pointed out that many were now planting the potatoes not only to take as a snack but were also keen to mill it and use the flour for porridge and cakes.

“We have developed at least five different varieties in Njoro. They are not only orange fleshed, boost eye sight, but also rich in Vitamin A making them ideal for diabetes and persons living with HIV.

Elgon Kenya Head of Seed Production Dr B L Menaria challenged farmers to engage experts before and during and even after planting.

“It’s an ongoing process and farmers should not only come to experts when something is wrong. They should invite experts to evaluate and analyze their plants through their different stages and offer the needed advice,” he added

Menaria called on farmers to buy certified seeds, saying that the continued usage of poor quality seeds would not only affect their soil content but would also give them poor yields.

He also challenged the farmers to adopt the new innovations in the agriculture sector, pointing out that Elgon Kenya carried out various field demonstrations to willing farmers.

“The clinic is one of our biggest move to engage and talk to farmers directly and this interrelation helps us understand what new varieties and types of seeds we should release to the market for their own benefits,” he added.

Margaret Nyawira, a farmer, called for more clinics, pointing out that many people were willing to engage in large scale green house farming but did not have the adequate finances.

“We have been advised on how to improvise local and easily available materials to create a green house and as it expands we will be able to purchase a bigger and better green house for farming,” she added.



With changes in weather and emerging pests and diseases, the plant clinics have also been training farmers on new and innovative ways of boosting yields.



iWayAfrica
A Member of Telkom SA SOC Limited

Accelerating
High-Speed
Connectivity
Across Africa.

Anywhere.
Anytime.

**Best Customer Service Provider
of the Year, SatCom Africa 2013 & 2012**

VSAT Provider of the Year
SatCom Africa 2012, 2011, 2010, 2009 & 2008

**Best Skills Developer in Satellite Communications
for Africa, Satcom Africa 2011 & 2010**

Africa's Satellite Personality of the Year
SatCom Africa 2011

Best Operator in a Developing Market
World Communications Awards, London 2007

**Others promise great service.
iWayAfrica guarantees IT.**

IWAYAFRICA KENYA LIMITED
Tel: +254 20 6190 000 / 2792 000
sales-ke@iwayafrica.net
iwayafrica.com

The environmentally friendly crop guide



Ability to absorb 100-200 times its weight in water as well as dissolved nutrients in soils and substrate
Reduces watering frequency for irrigated crops
Rain water absorbed during rainy season will be available to the plants for a longer period
Reduces leaching of nutrients
Enhances plant growth through continuous availability of water and absorbed nutrients
Helps to aerate the soils by expanding when absorbing water and contracting when releasing water
Applying hydrated Absorber avails moisture to transplanted plant and **increases** survival rates
Degrades naturally at the rate of 10-15% per year



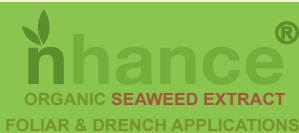
NEEM BASED
NEMATOCIDE / INSECTICIDE

Neem tree (mwarubaini) extract
Effective against nematodes, chewing and sucking pests
It has anti-feeding, repellent/deterrent and insect growth disruptant effects
Does not kill beneficials
Very Low Pre-harvest interval of 8 hours
Ideal for Integrated Pest Management (IPM) programs



ORGANIC
ULTRA CONCENTRATED
HUMATE POWDER

Organic 80% humate powder free of heavy metals
Inexpensive natural alternative to animal manures or compost and avoids weeds
Natural chelating agent
Increases cation exchange capacity hence efficient transfer of nutrients from soil to plants
Helps in freeing locked nutrients
Encourages beneficial micro-organism activity
Improves water holding capacity of soils
Inexpensive way of converting normal granular fertilizer to slow release by coating with Earthlee



FOLIAR & DRENCH APPLICATIONS

Natural seaweed extract of ecklonia maxima (kelp)
Certified for organic farming
Enhances root development leading to better top growth
Reduces transplanting shock
Increases yields



CONTAINING SEAWEED EXTRACT
PLUS TRACE ELEMENTS

Enhances seed germination and growth
Easy to apply
Increases crop yields
Seed dressing for wheat, barley, maize and other grains
Enhances early plant growth and **uniform germination**



NATURAL PLANT GROWTH
REGULATOR FOR TEA

Increases drought tolerance
Early bud breaks in pruned bushes
Increased rate of photosynthesis
Increase in number of pluckable shoots
Reduces "banji buds"

All products are Non toxic, Biodegradable and Environmentally friendly

IMPORTANT

Organix products give the best results when used in combination or in addition to the normal crop production programme. All other factors such as favourable climatic conditions, adequate water, good seed, etc should also be at an optimal.

PLEASE READ THE PRODUCT FLIERS AND LABELS CAREFULLY BEFORE USING.
ALL PRODUCTS SHOULD ALWAYS BE TESTED ON A SMALL AREA BEFORE LARGE SCALE APPLICATION




Organix Limited






















The Farmer's Environmental Friend

P.O.Box 14494
Nairobi 00800 Kenya

Tel: +254 20 3566241/2 / 3741482
Cell: +254 735 712090 / 720 937535

eco@organix-agro.com www.organix-agro.com



BANANA new planting		Mix 10 - 20g with soil per planting hole	Nematode : 2L Solution per plant (8ml / 1L water)	Mix 40g with soil per planting hole	Drench seedlings at 5ml / 1L water one day before transplanting. Follow with 2 foliars at 2-3 week intervals 2 weeks after transplanting at 3ml / 1L water
BANANA established		NIL	Nematode : 2L Solution per plant (8ml / 1L water)	Apply 20 - 40g as top dressing	Drench 2L Solution at 5ml / 1L water per plant
CABBAGE		½g per planting hole at transplanting	Insects : Foliar 1ml / 1L water	Coat 1Kg Earthlee with 50Kg granular fertilizer	Drench seedlings at 5ml / 1L water before transplanting. Follow with 2 foliars at 2-3 week intervals 2 weeks after transplanting at 3ml / 1L water
CARROTS		NIL	Nematode : Drench 10-14 days after germination at 1ml / 1L water by opening knapsack nozzle Insects : Foliar 1ml / 1L water	Coat 1Kg Earthlee with 50Kg granular fertilizer	Foliar at 3ml / 1L water after germination and repeat after 3 weeks
CHILLIES / CAPSICUM		½g per planting hole at transplanting	Nematode : 100ml Solution per plant (1ml / 1L water) Insects : Foliar 1ml / 1L water	Coat 1Kg Earthlee with 50Kg granular fertilizer	Drench seedlings at 5ml / 1L water one day before transplanting. Follow with 2 foliars at 2-3 week intervals 2 weeks from transplanting at 3ml / 1L water
COFFEE		Nursery : 1g / 1L soil Field : Mix 10-20g per planting hole	Insects : Foliar 1ml / 1L water	Field: 10g per planting hole Fertilizer coating: 1-2kg per 50kg of fertilizer Mature trees: 10-50g per tree	Newly transplanted : Drench seedlings at 5ml / 1L water one day before transplanting. Follow with 2 Foliars at 4 week intervals 4 weeks after transplanting at 3ml / 1L water
FRENCH BEANS		NIL	Nematode : Drench 10-14 days after germination at 1ml / 1L water by opening knapsack nozzle Insects : Foliar 1ml / 1L water	Coat 1kg Earthlee with 50kg granular fertilizer	2 foliars at 2 week interval at 3ml / 1L water starting at trifoliolate stage
FRUIT TREES / FORESTRY - mangoes, avocados		Nursery : 1g / 1L soil Field transplanting : 2-20g per planting hole	Insects : Foliar 1ml / 1L water	Nursery : 1g / 1L soil Field transplanting : 2-20g per planting hole	Drench seedlings at 5ml / 1L water one day before transplanting. Follow with 2 foliars at 4 week intervals 4 weeks after transplanting at 3ml / 1L water
GRASS (LIKE CAPE ROYAL, KIKUYU, MADDI RIVER, ZIMBABWE, ETC) new planting		At time of planting 20-40g / m² soil	NIL	At time of planting 20-40g / m² soil	Dip grass at 5ml / 1L water for 15 minutes before planting. Follow with 3 Foliars at 2 week intervals at 3ml / 1L water
GRASS maintenance		NIL	NIL	Coat 1Kg Earthlee with 50Kg granular fertilizer	Foliar at 3ml / 1L water after cutting and when new growth emerges. Spray 6 - 8 times per year
SHRUBS / SMALL PLANTS		Planting : 2 - 10g per planting hole	NIL	Planting : 2 - 10g per planting hole Top dress : 2 - 10g per plant	Drench plants at 5ml / 1L water after transplanting. Follow with 2 Foliars at 3 week intervals at 3ml / 1L water. Spray 4 - 6 times per year at 3ml / 1L water
NAPIER GRASS		½g per planting hole at transplanting	NIL	Coat 1Kg Earthlee with 50Kg granular fertilizer	Dip planting material at 5ml / 1L water for 15 minutes before planting. Follow with 2 Foliars at 3 week intervals at 3ml / 1L water. After every harvest spray on new shoots at 3ml / 1L water
ONIONS		NIL	Insects : Foliar 1ml / 1L water	Coat 1Kg Earthlee with 50Kg granular fertilizer	Drench seedlings at 5ml / 1L water one day before transplanting. Follow with 2 foliars at 2-3 week intervals after transplanting at 3ml / 1L water
PEAS		NIL	Insects : Foliar 1ml / 1L water	Coat 1Kg Earthlee with 50Kg granular fertilizer	3 foliars at 2 week intervals at 3ml / 1L water starting at trifoliolate stage
POTATOES		NIL	Insects : Foliar 1ml / 1L water	Coat 1Kg Earthlee with 50Kg granular fertilizer	Dip tubers in 2ml / 1L water for 15 minutes prior to planting. First foliar at 21 days after emergence followed by second foliar after 14 days at 3ml / 1L water. Do not spray after flower initiation
SUGAR CANE		10 - 20 Kilo per Ha. applied in the furrows	NIL	Coat 1Kg Earthlee with 50Kg granular fertilizer	Dip sets in 5ml / 1L water before planting. Repeat foliar at 60cm height at 2L / Ha. For ratoon apply foliar at 60cm height at 2L / Ha.
SUKUMA/ KALE/ SPINACH		½g per planting hole at transplanting	Insects : Foliar 1ml / 1L water	Coat 1Kg Earthlee with 50Kg granular fertilizer	Drench seedlings at 5ml / 1L water before transplanting. Follow with 2 foliars at 2-3 week intervals after transplanting at 3ml / 1L water
TEA		Nursery : 1g / 1L of soil Field : 2-5g per planting hole	Insects : Foliar 1ml / 1L water	Field : 2-5g per planting hole Fertilizer coating : 1Kg / 100Kg fertilizer to be mixed with top dressing fertilizer	Newly transplanted : Drench seedlings at 5ml / 1L water one day before transplanting. Follow with 3 foliars at 4 week intervals 4 weeks after transplanting at 3ml / 1L water *
TOMATO		½g per planting hole at transplanting	Nematode : 100ml Solution per plant (1ml / 1L water) Insects : Foliar 1ml / 1L water	Coat 1Kg Earthlee with 50Kg granular fertilizer	Drench seedlings at 5ml / 1L water before transplanting. Follow with 2 foliars at 2-3 week intervals after transplanting at 3ml / 1L water
WATERMELON		½g per planting hole at transplanting	Nematode : 100ml Solution per plant (1ml / 1L water) Insects : Foliar 1ml / 1L water	Coat 1Kg Earthlee with 50Kg granular fertilizer	Drench seedlings at 5ml / 1L water before transplanting. Follow with 2 foliars at 2-3 week intervals after transplanting at 3ml / 1L water
WHEAT MAIZE		NIL	NIL	Coat 1Kg Earthlee with 50Kg granular fertilizer	Foliar at 2ml / 1L of water at 3-5 leaf stage **



3 foliars at 5ml / 20L water at monthly intervals. Commence spray before dry spell.



Mix 100ml / 10kg of seed thoroughly.

REPUBLIC OF KENYA



MINISTRY OF AGRICULTURE,
LIVESTOCK AND FISHERIES

NATIONAL FARMERS AWARDS SCHEME WINNERS 2016



ELGON KENYA
Transforming Farms
and Lives through
Technology

Small scale farm gearing to commercialization



The winner in the Small Scale Farms Gearing to Commercialization Anastasia Wanjiku of Ngarama Farm in Nakuru County



Mureithi of Dim Com Eden Villa Farm in Laikipia County gets rewarded by Agriculture CS Willy Bett.



Second runners up in the Small Scale Farms Gearing to Commercialization Joseph Phillip Nyaga of Nembure Farm Embu County receives his trophy.

Small Scale farms fully commercialized



Albert Waweru Miare, OGW of Miare Dairy Farm in Nairobi County receives his award for being the winner in the Small Scale Farms Fully commercialized category



Prof. Charles C. Ngugi of Kirinyaga County is rewarded for being the first runners up in the Small Scale Farms Fully Commercialized category



Zakayo Kipkemoi Ngeno of Kebeneti Farm in Kericho county is feted for being the second runners up in the Small Scale Farms Fully Commercialized category

Large scale fully commercialized



Agriculture CS Willy Bett and BASF East Africa team presents Michael Gitau and staff of Maakiou Estates, the winners trophy in the Large Scale Fully Commercialized Farms category.



Engineer James Toroitich Kisa, proprietor of Macheo Farms receives the first runners up trophy from Agriculture CS Willy Bett escorted by BASF officials Carles Amengual and Gift Mbaya



Patrick Siparo receives his award as second runners up for Large Scale Fully Commercialized Farms category

Small scale agro-input dealers



A representative of Kizito Mwacharia, Munyambu Farmers Pride receives the winning trophy, Small Scale Agro Dealers from Agriculture CS Willy Bett



Stephen Gicharu Kirungu of Njoro Animal Feeds in Nakuru County is rewarded by Agriculture CS Willy Bett for emerging first runners up in the Small Scale Agro Input Dealers category.



Lucy Wangui Muriuki of K. Sunrise Farm Supplies in Laikipia County accompanied by friends receives the award for second runners up in the Small Scale Agro Input Dealers category.



Tom Akolo, Chief Officer Agriculture in Vihiga County receives the winning counties trophy in the National Farmers Awards

Transforming Farms and Lives through Technology

REPUBLIC OF KENYA



MINISTRY OF AGRICULTURE,
LIVESTOCK AND FISHERIES

NATIONAL FARMERS AWARDS SCHEME WINNERS 2016



ELGON KENYA
Transforming Farms
and Lives through
Technology

Women in Agriculture



Shelminth Wanjiku Nyaga a winner in the women in agriculture category flanked by family receives her award.



Ruth Muthoni Ikaru from Murang'a County, first runners up in the women in agriculture category

Physically challenged persons in Agriculture



Michael Ochieng Laro the overall winner Physically Challenged category was feted by President Uhuru Kenyatta Nairobi International Trade Fair



A representative of Consolata Ngugi from Nyeri County, 2nd runners up in the physically challenged persons category is feted by Agriculture Cabinet Secretary Willy Bett.

Large scale agro-input dealers



Overall winner in the Large Scale Agro Input Dealer category Dr. Enock Monda of Enochem Agrovet in Kisii County receives his award from Agriculture CS Willy Bett.



Dr. Amin Sheikh of Bungoma County, Winner, first runners up, Large Scale Agro Dealers category accompanied by friends and family



Second runners up in the Large Scale Agro Input Dealer Lameck Mbani of Nyarkadera Agrovet in Migori County



Agriculture Cabinet Secretary, Willy Bett, with Elgon Kenya Director Bimal Kantaria during the gala dinner

Youth in Agriculture



Gilbert Kipchirchir, Uasin Gishu County, the overall winner in the Youth in Agriculture category with a colleague savour the moment as Agriculture CS Willy Bett rewards him.



Jonah Kipkoros Sigei the first runners up in the youth category from Nandi county at the gala dinner.



Second runners up in the Youth in Agriculture category Stanley Kipkorir Tonui from Kericho County is rewarded by Agriculture CS Willy Bett



Agriculture CS Willy Bett is feted by Elgon Kenya directors Bimal Kantaria and Baiju Kantaria as ministry officials Irungu Njoroge and Simon Muchingiri look on



Patrick Ngugi, BASF Country Manager- Kenya, Crop Protection and Public Health Products receives a trophy in appreciation of his involvement in the awards.



Joseph Gachingiri, Chief Officer, Agriculture, Kirinyaga receives the winning counties trophy from Agriculture CS Willy Bett.



Regina Thamine, Agribusiness Officer, Murang'a County receives a trophy in recognition of the county's efforts to support the awards.



Nyeri County CDA Ephantus Mwangi and CEC Agriculture Robert Thuo receive the winning counties trophy from Agriculture CS Willy Bett

Transforming Farms and Lives through Technology

Postharvest practices and technologies to preserve freshness of harvested passion fruits



By Jane Ambuko

Passion fruit is one of the major fruits produced in Kenya for domestic and export markets. It is the third most popular fruit after avocado and mango. In Kenya, both the purple and yellow varieties are popular depending on the target market or use. Like other fresh fruits, high postharvest losses (> 50%) are reported in passion fruit. The high postharvest losses are attributed to many factors starting from the harvest stage. The desirable eating qualities of the passion fruits can only be realized when the fruits are harvested at the right maturity. However, due to the high demand for passion fruits in the local and export market, farmers practice 'strip harvesting' where fruits of mixed maturities are all harvested in one operation to meet the targeted volume. It should be noted that the sweetness increases while acidity decreases as the fruit mature and ripen. Therefore mixing fruits of different maturity results in juices of inconsistent quality which affects consumer acceptance. Fruits for fresh market may be sorted into batches of uniform maturity.

Temperature management is critical in postharvest handling of all perishable commodities.

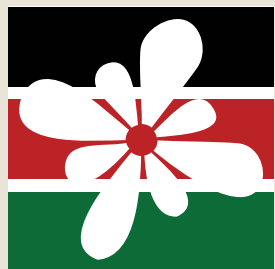
Although conventional cold rooms are out of reach for the smallholder farmers involved in passion fruit production, good postharvest handling practices can be adopted to maintain cool temperatures around the produce. This includes harvesting during the cooler times of the day (late evening or early morning); keeping the harvested produce under shade and transporting during cooler times of the day or at night. Additionally, there are low-cost cold storage technologies such as zero energy cool chamber (ZECC) = zero energy brick cooler (ZEBC); charcoal cooler; solar cooler and Coolbot™ cold room which are currently being promoted for adoption by smallholder farmers who cannot afford conventional cold rooms.

Passion fruits produce very high levels of ethylene – the ripening hormone. It is for this reason that passion fruit is often used in ripening chambers. The presence of ethylene in storage areas hastens ripening and deterioration of the fruits. Therefore ethylene management – removal or exclusion from the storage areas is critical for quality preservation. There are various technologies that are used by large scale operators to manage ethylene in storage areas. These include; application of 1-Methylcyclopropene (1-MCP) which is an ethylene inhibitor; use of ethylene scrubbers such as potassium permanganate which oxidises ethylene in the storage area; ozone is also used to oxidize ethylene.

One very simple yet effective postharvest technology that can be used to preserve freshness in passion fruit is modified atmosphere packaging (MAP). When a package that is suitable for the fruit is used, the shelf life of passion

fruits can be preserved for up to 15 days (at room temperature) compared to the fruits that are unpackaged. MAP creates an altered atmosphere around the fruit which in turn slows down processes such as respiration, ethylene production and water loss. When packaged in MAP, the package creates a barrier that hinders diffusion of water to the surrounding environment. As a result a saturated environment with high humidity is created around the fruits. This in turn slows down water loss and subsequent shrivelling of the fruits. Additionally the package creates a barrier to oxygen from the surrounding environment thereby reducing oxygen in the package. Since the fruit is 'living' and therefore continues to 'breathe', it produces carbon dioxide and uses up oxygen in the package. As a result the oxygen in the package reduces as the carbon dioxide increases. In essence this is what is referred to as modified atmosphere.

When a package that is suitable for the fruit is used, the shelf life of passion fruits can be preserved for up to 15 days (at room temperature) compared to the fruits that are unpackaged



IFTTEX 2017

INTERNATIONAL FLOWER TRADE EXPO

WEDNESDAY JUNE 7 - FRIDAY JUNE 9

OSHWAL CENTER • NAIROBI • KENYA



Kenya's Flower Industry Expo



www.ifttex.org



The deaf community is the most productive as they give full attention to their work without any distractions

The sign language of Oserian Flowers

By Joyce Kimani

When Catherine Atieno was told of a Naivasha-based flower farm that was hiring deaf workers she embarked on the long journey from Siaya in Western Kenya to try her luck. She had suffered discrimination as a deaf with potential employers snubbing her immediately they realized she couldn't hear.

Open to all possibilities she arrived at the Oserian Development Company front office desk without an appointment but was pleasantly surprised when she was warmly received by staff who could communicate in sign language.

The 24 year-old immediately felt at home as she explained the purpose of the visit. She had been referred by a deaf friend and was looking for an opportunity.

Four years down the line Catherine hasn't stopped smiling and vividly

remembers her journey as a fresh high school graduate that landed her at Oserian where she works in the flower farm's pack house.

"I live a comfortable life and can provide food, clothes and shelter for my one and a half year-old son," she said.

"In the village, when they realized I was deaf, I was ignored and people refrained from employing me for fear I would underperform. In fact, most companies shunned us claiming that we would be a bother due to the communication challenge. However, the quality of our work has proven them wrong," she added.

She has enrolled and completed a computer course and is planning to enroll for a secretarial course to acquire skills in preparation to apply for an office job when the company opens up the opportunity.

Catherine is among some 70 deaf workers at Oserian in the various

departments of the expansive farm that has employed about 4,500 people. The special workers play a crucial role in value chain of the one million stems the company exports every day.

Zavedi Kagoki, 44, and Charles Kamunyu, 50, a deaf couple, have worked in the farm for more than ten years. Kagoki works in the packaging department while Kamunyu is in the building department.

Kagoki said the company gave them an opportunity to discover their talents and skills especially by encouraging them to participate in co-curricular activities.

"We are always encouraged to participate in sports especially athletics and football tournaments which have enabled some of our deaf colleagues to even participate in International Olympics for international athletics," she added.

Kagoki added that many had initially suffered from low self-esteem due to their condition but were now comfortable. "They gave us the opportunity to understand that even though we are different we have something important to offer to the world," she added.

Their four children have been educated by the Oserian. "Our first born who is currently in high school has been fully sponsored by the company," said Kamunyu.

Doris Atieno, who has worked at the farm for four years said the lack of papers did not hinder the company from employing them.

"Most companies shun away deaf people because of their economic credentials yet many are too poor to further their education. Oserian did not insist on academic papers but instead gave us the opportunity to work after which we were able to seek further education," she added.

Oserian Head of Human resources Mary Kinyua appreciates the deaf community which describes as one of the most productive as they give full attention to their work without any detractions. "These are the kind of workers every employer should hire. They work with one accord paying full

attention to their work. They don't talk or hear so they work fully", Mary said with admiration and pride adding that they place a premium on their jobs knowing it's not easy for them to secure employment.

Most of the deaf workers are in the pack house where they grade package flowers. According to Mary, flowers are delicate and require a special touch, the station doesn't involve lots of movement making it easier for them to work. "We try to make their lives as easy as possible, reason we also house them in the company estate," She said.

The oldest one has served in the company for 14 years and has scooped the best employee award for 13 consecutive years. They are an integral part of us and we include them in every way possible," she said adding the deaf corner produces the best workers every year.

Mary added that most of them had enrolled in various colleges to undergo different courses as a means of boosting skills.

"Their passion and zeal is amazing as most want to further their education despite many of them having basic certificates only," she added.

She added that most of the deaf were recruited on recommendation basis by their colleagues.

Even though they have 26 trained interpreters based in every department they were increasing the number to create efficient communication.

Kinyua said that they have rolled out a project to ensure that the various departmental heads are trained in the Kenya sign language as a move made to improve communication with the deaf to respect their privacy", she said.

The deaf are represented in all farm committees like gender, Fairtrade and social welfare programmes. Mary disclosed these workers are in the process of setting up income generating projects to diversify income through Fairtrade premiums and cooperative loans.

"We are an ethical company and we believe in giving an equal opportunity to all people as part of our affirmative action." she added.

In addition, the deaf are not turned away despite a clear notice at the gate warning visitors are only attended to on appointment. Mary throws banter to employers to create opportunities for special needs people as a policy. "This is one of the most rewarding ways to improve the society," she says.

Oserian
FLORI4 LIFE

Our award winning flowers make lives better, create jobs and support a greener planet inspired by the vision of the Zwager family. For more info visit www.oserian.com

FLORI4 NATURE
We sustain nature through our wildlife sanctuary and native vegetation. We raise seedlings for reforestation, use geothermal power to heat greenhouses, apply IPM to reduce chemicals and recycle plastics.

FLORI4 SCHOOLS
Oserian has constructed and furnished two early childhood development centres, two primary schools, a high School for employees and built two community schools.

FLORI4 FARMING
We believe in a hunger-free Kenya. Our Tissue Culture lab produces high value food crops like banana seedlings and seed potato to increase farmers' yields.

FLORI4 WATER
Water is life. Our water management model has been cited by the Water Resource Management Authority as an industry benchmark. Oserian has developed several community water projects.

**Naivasha Office: P.O Box 2010, Naivasha 20117, Kenya, +254 (0) 50 2030210 / 2021036, +254 (0) 727 534 550
+254 (0) 736 444 440, +254 (0) 50 2021035, Nairobi Office: P.O Box 43340, Nairobi 00100,
Kenya, +254 (0) 20 660 8000, +254 (0) 20 2139323/4/5/6, +254 (0) 726 111 000, +254 (0) 20 660 8240**



The system makes it possible to trace any shipment that does not comply with market standards on arrival at the export market to be traced back to the source with a view to instituting immediate remedial actions.

National Traceability System breathes new life to Kenya's horticulture industry

By Bob Koigi

Kenya's horticultural industry has received a major boost following the unveiling of a cloud based system that will now make it possible to trace any shipment that does not comply with market standards on arrival in the export market to be traced back to source, with a view to instituting immediate remedial actions.

The system, dubbed the National Horticulture Traceability System is unique to Kenya, and comes at a time when the sector has been blighted by frequent interceptions of exports due to excessive pesticide maximum residue levels and the presence of regulated pests in export consignments. This had put the over 6.5 million Kenyans who rely on the sector for income and employment at risk.

The launch of the system is a culmination of spirited efforts by government and private sector in trying to resuscitate a sector that was headed to doldrums. 2013 was perhaps the

worst year for the sector. Beans and peas exports from Kenya were subjected to 10 per cent inspection at all ports of entry into the EU because of inability of Kenya to demonstrate existence of an effective national traceability system for horticultural produce and continued detection of pesticide residue in beans and peas beyond the recommended levels leading to a 60 per cent reduction in exports. 50,000 smallholder farmers lost their jobs and incomes as a result of drop in production of beans and peas for exports with the local industry losing 3.4 billion shillings annually in costs of testing pesticide residues in exports.

"There is a very high implication when you get the recalls and border interceptions. When you talk of the 10 per cent sampling, it means you are going to pay for that," said Dr. Margaret Muchui, CEO of Fresh Produce Exporters Association of Kenya, FPEAK.

Veg Pro one of the exporters was spending up to Sh700,000 weekly to

facilitate the tests represent the extent to which growers and exporters were hemorrhaging.

The system, whose trialed was mooted about 20 months ago has been pivotal in increasing market confidence in the export markets while safeguarding the over 2.5 million smallholder farmers involved in export horticulture.

The pilot project involved 12 export companies and 1,460 smallholders growing beans and peas in 10 countries. The system has three main components. A mobile app for registering farmers and capturing routine farm operations and agronomic practices, a web reporting portal for sharing information among stakeholders and a barcode and Quick Reference (QR) code printing module. It can accommodate up to one million farmers and has the capacity to identify the exact source of a shipment through its GPS coordinates, and generate online production and handling reports required by the market.



Kenya exports a lion share of its horticulture to the EU where traceability is vital for retailers and consumers

“Traceability is about being able to respond quickly in the event of there being any problem whatsoever with Kenyan produce in the market. What we wanted was a system whereby if a box of Kenya produce was for any reason found to be missing any requirements, it would be possible through this national traceability system to track it all the way back to the grower. This is particularly challenging in Kenya because we have thousands of small scale growers who supply to the top supermarkets in Europe so it is critical that we can get back to each one of those in the event of a problem,” said Dr. Steve New Chief of Party at the Kenya Agricultural Value Chain Enterprises Project of USAID.

It has also come as a welcome relief to agronomists who traditionally used to carry bags of paperwork for record keeping while visiting farmers. “It was quite a daunting task moving around with bags of papers to record the produce. With the traceability system has made my work so simple because I only need to move around with my phone,” said James Gichuru technical assistant at Veg Pro.

With the system, regulations and compliance officials have been able to also save time in identifying the exact location where a problem is detected.

“What used to happen before is that when a problem arose with any produce one had to traverse quite a large area trying to identify how best to identify a problem. With the current system, it has become much easier to locate where the problem is and be able to rectify it in time,” said Wilfred Yako, Regulations and Compliance officer at the Horticultural Crops Directorate.

And as the industry now warms up to the system players in the export markets have also welcomed it as key in fostering the longstanding relations with Kenya. “Traceability is vital for UK retailers and customers who need to have the confidence in where their product is coming from and how it is grown so we are delighted that the Kenyan growers, exporters and importers together with Kenyan authorities have brought together this national scheme Sian Thomas Communications Manager Fresh Produce Consortium UK.



The cloud based system is unique to Kenya and can accommodate up to one million farmers



The traceability system for horticulture is a welcome relief to the over 2.5 million farmers who are in the export business



With restored market confidence, industry players now predict a growth in export volumes and diversified markets

Nematodes infestation on the rise

Nematodes are spread to and within greenhouses through contaminated water, machinery, animals and humans

“Nematodes are so devastating they can lead to total losses requiring replanting; we test frequently to avoid the risk of infestation and ensure our irrigation water is free of pathogens”, Hamish Ker, Oserian Development Company



By Ruth Vaughan

Ornamental growers are reporting increasing nematode infestations under greenhouse production. According to crop protection experts, many growers do not diagnose the problem until the crop is already damaged.

Nematodes are long, thin round worms, so tiny they can usually only be seen under the microscope. They are found in different areas and diverse habitats, but the ones that are of concern to farmers are those that dwell in the soil and feed on plant roots. These are commonly called plant parasitic nematodes that damage plant roots and slow down or block movement of water and nutrients to the growing parts of the plant.

Symptoms of nematode infestation

Signs of plants infected with nematodes are usually not uniform in the greenhouse but occur in patches along the beds. Above-ground symptoms often resemble nutrient deficiency or drought stress. These include yellowing, wilting, stunting, thinning and flower injuries. Farmers tend to describe these symptoms, mistakably, as a result of nutritional or water deficiencies. It is for these reasons nematodes are called the ‘silent’ enemies, said Ruth Vaughan, Technical Manager, Crop Nutrition Laboratories.

To confirm the presence of nematodes, soil and root analysis is recommended. Visual examination of roots, depending on the types of nematodes present, will show galls or knots on the roots. These are club-like swellings on succulent filamentous roots.



VELUM[®]
PRIME

Put nematodes where they belong: In the history books.



Spread of nematodes, alternative hosts and survival

Nematodes are spread to and within greenhouses through contaminated water, machinery, animals and humans.

Once introduced, it is highly unlikely that nematodes will be totally eradicated because they have several host plants. These include the most commonly cultivated vegetable crops such as tomato, carrots, spinach and several weeds such as gallant soldier (*Galinsoga parviflora*), black nightshade (*Solanum nigrum*) and pigweed (*Amaranthus spp.*). In addition, nematodes have a sophisticated adaptation to survive harsh conditions for several months or years as eggs or juveniles (young ones) in the soil or within root fragments.



Impact of nematodes

When nematode populations in greenhouses are not managed, they significantly reduce crop yields and quality. In addition, nematode entry into plant roots creates wounds that serve as entry sites for other soil borne pathogens like *Fusarium spp.*, *Pythium spp.*, *Rhizoctonia spp.* and *Phytophthora spp.* leading to secondary infections. When nematodes and soil borne diseases occur simultaneously on a crop, they complex together, result in a rapid crop health decline and greater yield losses.

Management

Nematodes are mainly spread through movement of infested soil, seedlings, machinery and plant debris. Avoid introduction by planting nematode-free seedlings and using nematode free media especially for propagation. This can be achieved by inspection of nurseries before the seedlings are transferred to the greenhouse. Equipment and tools used on soils should be properly cleaned before use in another greenhouse. Soil conservation measures to check soil erosion also limit nematode spread and introduction.

Balance soil fertility:

Soils that have poor fertility, including low calcium levels (low oxygen conditions), will be more prone to infestations. Balancing of soil fertility through soil testing will provide a better environment for beneficial soil organisms to compete with plant parasitic nematodes, reducing the threat to crop yields. A balanced crop nutrition program serves to reduce adverse effects by improving plant health and tolerance to nematodes.

Resistant varieties:

If the greenhouse is infested, it is highly recommended that farmers adopt nematode resistant varieties

Weed control:

Weeds such as Gallant soldier and black/African night shade (*Solanum spp.*) can harbour very large populations of nematodes.

Organic amendments:

Incorporation of organic matter and residues into soil including manures and crop residues not only improve soil characteristics, moisture availability and plant nutrition, but also stimulate microbial antagonism by predacious mites, springtails and earthworms. Sandy soils, with lower than optimum organic matter, when fertilized with high nitrogen fertilizers, are susceptible to nematode attack.

Antagonistic cover crops:

Intercropping vegetables with crops that are non-host or with antagonistic properties to nematodes in alternate seasons reduce numbers by depriving nematodes of food and releasing nematicidal properties. Popular crops cabbage, mustard, velvet bean (*Mucuna pruriens*), hyacinth bean (*Dolichos purpureus*), Mexican marigold (*Tagetes spp.*), Sorghum (*Sorghum bicolor*) and sorghum-sudan grass (*Sorghum bicolor* subsp. *drummondii*) When establishing a greenhouse, the antagonistic/cover crop can be harvested before maturity and be mixed or incorporated into the soil (bio-fumigation).

Biological Nematicides

Biologically based nematicides include neem based products, *Trichoderma sp.*, nematophagous fungus such as *Paecilomyces lilacinus* and *Myrothecium verrucaria*, reduce nematode numbers without concern for environmental hazards

Chemical Nematicides

Used when populations are severe

IPM Essen 2017

The global horticulture fraternity will meet yet again in Germany for the IPM Essen from January 24 to 27, 2017.

On show will be technologies, soils and substrates for efficient production where plant breeders from all continents as well as marketing organizations are expected. Around 1,600 exhibitors from 50 countries have confirmed participation to display new plants, technologies, floral arrangements and landscaping among others.

Events such as the International Horticulture Forum with the Netherlands as the partner country and the teaching show entitled "LED, Iodine, Plasma Cultivation Control Today", will be held.

The German horticulture industry (INDEGA) and the Eugen Ulmer Publishing House, will provide information about chances and challenges of horticulture.

New trends in greenhouse farming will be on show. These include: from greenhouse plastic films, interior fittings, illumination, air conditioning, irrigation systems, husbandry machines, weather protection and insect-repelling nets.

Substrate mixtures, soil conditioners as well as fertilisers and plant fortifiers biological cultivation of weeds, and environmentally friendly beneficial organisms will be in plenty while plant breeders from all continents will introduce their new varieties.

At IPM Essen 2017, the Central

Horticultural Association (ZVG), sponsor of IPM Essen, as well as the co-organiser the North Rhine-Westphalia State Horticultural Association will once again present their comprehensive spectrum of services in the Horticulture Info Center.

Also at the centre, under the motto of "LED, Iodine, Plasma - Cultivation Control Today", research establishments from Germany will present their latest results about the main focal points of light and growth regulation.

The "hortigate" info system in the centre will show the new "My Business" module which plant businesses can use in order to align plant protection measures and document them in conformity with GlobalGAP.

HPP, Grandeur Group China Flower Trade Fair 2017

The 9th Guangzhou International Flower, Bonsai & Garden Exhibition 2017 (GBGE2017) will be benefiting from the joint efforts of Netherlands HPP Exhibitions and Guangdong Grandeur International Exhibition Group. With the cooperation of HPP Exhibitions, the international promotion of GBGE2017 will be taken to another level.

As an internationally recognized show organizer, HPP Exhibitions Guangzhou's oversea exhibition co-organizer who is responsible for regions of Europe, Africa and South America to invite exhibitors and buyers for GBGE2017.

Meanwhile bookings from international exhibitors are flying in, including Kenya National Flower Growers Pavilion, Ecuador National Flower Growers Pavilion, Magana Flowers, PJ Dave Group, Sian Roses Flower, Tambuzi Roses, Jaroma Roses, Eternal Flower and Dream Farms.

As the preparation for GBGE2017 progresses, HPP will help the Guangzhou organisers draw in more exhibitors from Europe, Africa and South America, helping expand markets and explore more business opportunities, which means that GBGE is moving abroad to be an more international exhibition.

Source: Floraculture International

Kenya to host first Post Harvest Congress

Kenya is set to host the first all Africa Post Harvest Congress and Exhibition scheduled for March 28 to 31 2017 at Safari Park.

The theme of the Congress is "Reducing Food Losses and Waste: Sustainable Solutions for Africa".

The Congress aims at facilitating the exchange of experience and advancement of collective knowledge among the stakeholders in the food supply chain and specifically in the post-harvest space to develop action plans that will move Africa's postharvest food loss and waste management agenda forward. The congress also features a competition involving innovators of new postharvest technologies where the top 15 innovations and technologies in various value chains as selected by a panel of experts will be show-cased during a special session of the congress.

Contacts

0722 676458

postharvest.conference@uonbi.ac.ke
postharvest.conference@gmail.com

Tuta Absoluta developing resistance?

The invasive tomato leaf miner Tuta Absoluta is giving experts fresh headaches following reports the pest has started developing resistance due to overuse of a few chemicals.

Although HortiNews was unable to get full information on this unfortunate development, experts contend that it is not too late to reverse the trend.

According to Chris Kolenberg of Kenya Biologics that has been involved in a USAID-funded project using the firm's traps, unlike in 2015 when infestation was first reported, farmers and crop protection experts are now more confident handling the pest.

"In the beginning, we didn't know what to do but now more farmers and experts have a fairly good idea how to manage the pest", he said.

Tuta absoluta is a moth that can cause up to 100 percent loss in tomatoes, the second largest grown and arguably most consumed vegetable in Kenya valued at more than Ksh 40 billion. It is a smallholder crop with major impact on rural incomes, as well as an industrial crop in the manufacture of puree and sauce creating employment along the chain.

When the pest struck in 2014, stakeholders were caught off guard especially with farmers not knowing what it was or what to do. Many mistook it for blight and bombarded crops with sprays and more sprays with no effect as leaves dried up and fruits aborted. By the time experts identified Tuta Absoluta as the enemy the damage was already done. Many framers stopped farming.

However, like everywhere else when a new pest invades, Tuta is currently well settled in Kenya and spreading fast towards the south having attacked Tanzania, Zimbabwe and Zambia. West Africa is reported to have been attacked too.

Many farmers who abandoned



Kenya has achieved 75 per cent of Tuta Absoluta control by use of traps like Tutrack that contains a lure and a trap.

production of tomato following huge losses are now going back said the Kenya Agricultural and Livestock Organization head of horticulture Dr Lusike Wasilwa.

Mr Kolenberg said Kenya has achieved 75 per cent of Tuta Absoluta control by use of traps. Kenya Biologics tested its Tutrack pheromone trap to combat the pest among smallholder farmers in Western Kenya under the USAID Feed Feed the Future Kenya Innovation Engine.

Tutrack is a pheromone-based mass-trapping system consisting of a lure and a trap. Kenya Biologics demonstrated the efficacy of the technology, which was proven to give 400 kg more yield per 0.1 hectare compared to other products. Kenya Biologics is currently piloting the innovation under a subsequent USAID grant with the aim of marketing it to at least 4,500 smallholder tomato farmers and establishing in-house production to meet market demand, according to a report by USAID.

While it is impossible to attain 100 per

cent levels of control, Mr Kolenberg says a combination of practices is required. "Orchard sanitation, trapping and spraying are the farmers best bets in management of Tuta Absoluta," he said adding that pesticides are available from multinational agrochemical firms.

He adds that in about two-three years Kenya should see natural enemies follow the pest adding to the treatment regime.

What to do?

If you see the signs – tunnel hidden inside tomatoes with holes, hang a trap. If you catch a moth or see a dropped fruit get all the affected parts out. Walk through every two days removing all damaged crops to stop the moth that lays 280 eggs from increasing the infestation. Burry the fruits and leaves in a deep hole. Go to your neighbor and get them do the same. It doesn't help doing it alone. Once the crop is over, don't leave it on as majority of the pupae will go to the soil – Chris Kolenberg.

Use male lure for mass trapping



Male moths are attracted by the lure and are captured in the trap, giving a clear view of the size and evolution of their population

By Samira Abuelgasim Mohamed

The South American moth, tomato leafminer, *Tuta absoluta* is a major threat to tomato production. In its trans-Atlantic invasion the pest was first detected in Spain and quickly spread across the region becoming the prime pest of tomato in many parts of the Eurasian and African continents. In Africa, the pest is swiftly moving southwards, and this is facilitated by the continuous vegetable cultivation across political borders, absence of effective surveillance mechanisms and the lack of phytosanitary expertise for interception of infested vegetables, coupled with the ever-growing tourism and increasing intra-continental trade which is making the invasion of the entire continent by *T. absoluta* a grievous threat. This is further compounded by the lack of efficient natural enemies to combat this pest in Africa. In Kenya, the pest was first detected at Mpeketoni in March 2014 during surveillance activity carried out jointly by the international Centre of Insect Physiology and Ecology and Kenya Plant Health Inspectorate Service.

Infestation of tomato by *T. absoluta* often results in significant reduction in yield and quality of the fruits. Fruits can be attacked soon after formation and the galleries left by feeding larvae provide opportunities for the development of secondary pathogens leading to fruit rot. Beside the direct losses on fruit quality and quantity, indirect losses are associated with quarantine restrictions imposed by importing countries to prevent the entry and establishment of *T. absoluta*.

Following the invasion and wide spread of this in Kenya, tomato yield losses of up to 100% have been reported in all the counties where the pest has been detected, threatening tomato production and export, thus affecting the livelihood of millions of tomato growers and other stakeholders along the tomato value chain, most of them women. Furthermore, the pest is also a threat to important African indigenous vegetable such as night shade.

For management of this pest the Kenyan tomato growers have resorted to the use of broad spectrum insecticides to combat the exploding populations

of this pest that negatively impacted on the natural enemies' population and biodiversity at large. Moreover, the South American experience showed that *T. absoluta* has developed resistance to several classes of synthetic insecticides such as organophosphates and pyrethroids.

The International Center of Insect Physiology and Ecology, Nairobi, Kenya, under a BMZ funded project and in collaboration with national and international partners in Europe and South America, has identified a potent fungal isolate which is currently in its final stage of testing for potential use as a bio-pesticide for management of this pest. In collaboration with one of the international partner, The International Potato Center (CIP), Lima, Peru, we are introducing an efficient parasitoid for classical biological control of this pest. Additionally, and in collaboration with the same partner we are developing a novel attract and kill product for control of this pest.

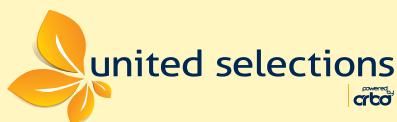
Although Icipe is developing an eco-friendly IPM approach to combat this pest (as described above). Currently we advise the farmers to (1) use the commercially available *Tuta absoluta* male lure for mass trapping, (2) practice extensive field and green house sanitation, and (3) avoid movement of fruit and other planting material from infested areas to other regions. However, these management approaches have to be employed area-wide for best suppression of the pest. Also, extension and quarantine officers need to be trained on bio-ecology and various management options of the pest. In addition, there is an urgent need to create awareness among tomato and other vegetable growers on the economic importance of this pest and the threat it poses to tomato production.

STOP PRESS

Koppert Biological Systems, in partnership with Kenyatta University and BV Netherlands released findings of the first year project, Salvaging Tomato Production in Kenya from the Menace of Pest and Diseases, *Tuta absoluta* and *Fusarium* wilt Nematode. HortiNews will in the next edition publish in detail these findings and the way forward.

Exporters Fruits & Vegetables

NO.	ORGANISATION	LOCATION	PRODUCT	CONTACT PERSON	PHONE	EMAIL
1	AAA Growers Ltd	Nairobi	Horticulture	Neville Ratemo	+ 254 20 44 53 970	admin@aaagrowers.co.ke
2	Jefer Enterprises Limited			Felix Muia	+ 254 733 551 037	info@afyafresh.com
3	Agrifrwsh Ltd			Mr.W.A.Dolleman	020-8560650	
4	Ansa Horticultural Consultants				020-3750348	ansa@icnnect.co.ke
5	Athi Farm Exporters Ltd			Eunice Mwikali Mutune	+254 722 815 652	info@athifarmexporters.com
6	Avenue Fresh Produce			Mr.C.Muchiri	020-825342/020-820015	avenue@avenue.co.ke
7	Belt Cargo Services Export Ltd	Nairobi	French Beans	Mr.J.Muigai	020-4448821	bcs@beltcargo.com
8	Benvar Estates Ltd			Robert Muchoki	+ 254 20 233 7095	farm@bcf.co.ke
9	Bogmack	Timau		Mr.Anderson	0722-350020	kathendusn@yahoo.com
10	Brandon Enterprises			Ms.Grace Nyokabi	020-242090	Brandon@springs.com
11	Canken International Ltd	Eldoret	Chillies And Fruits	Mr.Mohamed	020-222736367	canken@cankencargo.com
12	Chirag Kenya Ltd	Nairobi	Spice & Herbs	Sales Team	254-20-3573000	naturesown@swiftkenya.com
13	Continental Fresh Produce Ltd			Allan Simiyu	0722 809 344	info@continentalfresh.co.ke
14	Darfords Enterprises Ltd	Athi River	Vegetables	Mr.Abdul	254-206622857	abdulkarim@darfords.co.ke
15	Delmonte (K) Ltd	Thika	Fruits	Sales Manager	020-672141600	nanasi@freshdelmonte.com
16	Dominion Vegfruits Ltd	Nairobi	Fruits & Vegetables	Mr.John Mwaura	020-8233356	vegfruits@wananchi.com
17	Doralco (K) Ltd			Ms.Christina Chenet	020-521833	doralco@samnet.com
18	East African Growers	Nairobi	Fruits & Vegetables	Mr.Peeush Mahajan	020-822034/25	peeush@eaga.co.ke
19	Emke Commodities (K) Ltd			Bijot	+ 254 736 997 777	emkevegkenya@gmail.com
20	Everest Enterprise Ltd	Timau & Narumoru		Mr.J.Karuga	020-824141	jkaruga@everest.co.ke
21	Everest Enterprise Ltd	Nairobi	Fruits & Vegetables	Mr.John Karuga	020-3542009	smuhoho@everest.co.ke
22	Everfresh Produce Ltd			Irene Wanjiru	+254 722 496 836	admin@kenyafresh.co.ke
23	Evergreen Crops Ltd			Arun Singh	+ 254 722 205 108	arun@evergreencrops.com
24	Farmland Express			Mr.Ali Rashid	020-749314	Rashid@arcc.or.ke
25	Fian Green Kenya Ltd	Nairobi	Fruits & Vegetables	Mr.Francis Thuita	020-826157	info@fiangreens.co.ke
26	Fishier Industries Ltd			Mr.Kahara	0722-983304	
27	Forever Green Growers Ltd				+ 254 724 319 254	info@forevergreengrowers.com
28	Fresco Produce Ltd	Nairobi	Vegetables	Mr.Charles Mbugua	254-0722-764395	mbugua@frescoproduce.co.ke
29	Fresh An Juici Ltd	Embakasi	Fruits & Vegetables	Ms. Farida	020 - 826090/3	farida@freshanjuici.co.ke
30	Fresh Approach Ltd			David Muya Wambua	+ 254 20 23 37 475	freshapproach@kenyaweb.com
31	Freshken Agroducers			Elizabeth Mnasya	+254 724 306 279	mail@freshken.co.ke
32	Freshpak Horticultures Ltd			John G. Ngigi	+ 254 733 762 191	freshpak@freshpak.co.ke
33	Frigoken Ltd	Babadogo		Mr.Nasoor Verjee	020-860096	frigoken@frigoken.com
33	From Eden Ltd	Nairobi	Vegetables	Mr. Zulfikar Jessa	020-8562203	rajeev@from-eden.com
34	G.N Farm			Mr.Joseph Mungai	0733-949696	
35	Gekins Exporters			Mr.Geoffrey Kingau	020-240715	
36	Global Fresh Lts	Nairobi	Fruits & Vegetables	R.Chaudhry	020-827549/50	info@globalfresh.co.ke
37	Green Kenya Organisation	Luansa	Onions & Tomatoes	Charles Butiko	0723 119111	greenkenya28@gmail.com
38	Green Ventures				020-728724/725739	
39	Greenlands Agro Producers	Timau & Makindu		Mr.Njoroge	020-827079	geoffrey@greenlands.co.ke
40	Haraf Farm Ltd			Alfred Sikuku	+ 254 723 280 000	harafkenyafarm@gmail.com
41	Highlands Canners Ltd	Nairobi	Fruits & Vegetables	Sales Manager	020-8564048	info@highlandcanners.co.ke
42	Hillside Greengrowers Ltd			Ms.Eunice Mwongera	020 2397353	eunice@hillsidegreen.com
43	Homegrown Kenya Ltd			Mr.Evans	020-3873800	hgkadmin.nbohq@f-h.biz
44	Indu Farm Epz Ltd	Nairobi	Vegetables	General Manager	254-20-550215/6	info@indu-farm.com
45	Interveg Exports Ltd			Purity T. Naisho	+ 254 20 244 57 56	operations@interveg.co.ke
46	Jakal Services Ltd	Mombasa	Fruits&Spices	Mr.Bandali	254-7412229435	jakal@kenya.com
47	Jetlak Foods Ltd	Ruiru	Fruits & Vegetables		254-722754181	mail@jetlak.com
48	Jungle Macs Epz Ltd	Thika	Fruits & Vegetables	Sales Manager	020-2451841	info@junglemacadamias.com
49	Kakuzi Ltd	Thika		Mr.R.Collins	(060)-33012/31393	rcollins@kakuzi.co.ke
50	Kandia Fresh Produce Suppliers Ltd			David Mulwa	254 722 350 552	perations@kandia.co.ke
51	Keitt Exporters Ltd	Nairobi	Fruits & Vegetables	Ashif Amin	+ 254 722 344 899	info@keitt.co.ke
52	KENANA FARM				0722-725002	pkenana@africaomline.co.ke
53	Kenya Fresh Exporters Ltd			Priscilla W. King'angi	020-826267/8	kenyafresh@swiftkenya.com
54	Kenya Fresh Produce Exporters Ltd			Priscilla Kingangi	0202107232	info@kenyafresh.co.ke
55	Kenya Horticultural Exporters (1977) Ltd			Manu Dhanani	25420650300	info@khekenya.com
56	Kenya Horticultural Exporters Ltd			Mr.Manu DhanaNI	020-650300	
57	Kenya Orchard	Nairobi	Fruits & Vegetables	Sales Manager	254-2054161	
58	Krin Agribio (K)			Mr.Karima/Fransisco	0161-30776	krinken@africaonline.co.ke
59	La Pieve			Mr.Peter Zwager	020-30210	
60	Mace Foods Ltd	Eldoret	Vegetables	Sales Manager	254-720391290	info@macefoods.com



Exporters Fruits & Vegetables

NO.	ORGANISATION	LOCATION	PRODUCT	CONTACT PERSON	PHONE	EMAIL
61	Makindu Growers & Packers Ltd			Bij Kamal	+ 254 20 82 28 12	info@makindugrowers.co.ke
62	Makindu Growers & Packers Ltd		Passion Fruits	Mr.Kamal Bij	020-822812	info@makindugrowers.co.ke
63	Mboga Tuu Ltd	Isinya		Mr.J.Kent	020-566497	mtl@wananchi.com
64	Meru Herbs		Organic Products	Marketing Manager	254-20-4442081	meruherbs@meruherbs.com
65	Migotiyu Plantations Ltd	Nakuru	Herbs	Mr.B.K.Rao	051-2214898	alphegasial@wananchi.com
66	Mixa Foods & Beverages	Kisumu	Fruits&Milk	Charles O.Odira	254-733-714584	info@mixafoods.co.ke
67	Mosi Ltd	Juja	Fruits	Rose Wahome	254-722204911	mwaiwahome@mosiflowers.com
68	Mount Elgon Orchard Ltd	Kitale	Orchards	Bob Andersen	254-205431352	info@mtelgon.com
69	Mugama Farmers Co-Op Union	Murang'a	Vegetables	Sales Team	254-728-358211	mugamaunion@yahoo.uk
70	Muzuri Growers Ltd			Mr Jignesh Desai	020 3664503	muzurigrowers@gmail.com
71	Myner Exporters			Mr.S.Maina	020-607997	maner@spacenetonline.com
72	Namelok Exotics (K) Ltd			Mr.D.T.Sinkeet	0724-743258	info@namelokexotic.com
73	Nicola Farms Ltd	Nanyuki	Fruits & Vegetables	Ms.Grace Wanjiku	020-2048874/76	marketing@nicola.co.ke
74	Njambiflora Ltd		Vegetables	Ms.Marie	020-822506/7	njambiflora@yahoo.co.uk
75	Olivado Kenya Epz Ltd	Nairobi	Avocado	General Manager	254-710535303	gh@tanlay.com
76	Pino Agencies			Merab Ogola	020 2215519	pinoagencies@gmail.com
77	Premier Fresh Ltd				020 3546364	premier@premier-fresh.com
78	Raayan Exporters Ltd			David Musyoka	+ 254 721 853 604	raayanexporters@gmail.com
79	Rea Vipingo Plantations Ltd	Kilifi	Sisal	Managing Director	254-721465035	info@reavingo.co.ke
80	Reap Horticultural Exporters			Samuel Gichane Warui	+ 254 722 973 206	reap@swiftkenya.com
81	Rubi Ranch Fresh Exports Epz Ltd			Charles Kamutu	+ 254 020-2329888	info@rubiranch.co.ke
82	SACCO Fresh Ltd			Jonathan Mwai Muia	+ 254 20 82 4887	info@sacco-fh.com
83	Saipei Foods Ltd				+ 254 723 416 457	Person: Lucy Njeri Kuria
84	Saw Africa Epz Ltd	Thika		General Manager	254-722531106	wainana_patrick@yahoo.com
85	Shree Ganesh Fruits and Vegetables Ltd			Mr. Kanji Kalyan Patel	020 – 80243645	
86	Sian Exports (K) Ltd			Swati Sharma	+ 254 20 822 831	info@sianexports.com
87	Six Square Ltd			Ajay Saini	020 5227423	info@sixsquare.co.ke
88	Spring Green Ltd			Patricia Githegi	+254 700 298 220	sales@springgreen.co.ke
89	Sunmango Ltd			Mr Kushal Patel	067-5854406	sunmango@dmbgroup.com
90	Sunripe (1976) Ltd			Mr.Hasit Shah	020-822518/822879	info@sunripe.co.ke
91	Super Veg Ltd			Mr.R.Kachela	020-63820	superveg@net2000ke.com
92	Superfresh Kenya Ltd			Mahesh Patel	0710 821092	superfreshkenyaltd@gmail.com
93	Syngenta Ea Ltd	Nairobi	Seeds	Sales Manager	254-203222800	syngenta.east_africa@syngenta.com
94	Valentine Growers Co Ltd	Kiambu	Vegetables	Sales Team	254-720203765	info@valentine-flowers.com
95	Value Pak Foods Ltd			Mr.Roy	020-823438/39	value@wananchi.com
96	Veg Afric Ltd			Mr.Chawdry	0733-747859	
97	Vegmon Agencies			Mr.Ndungu	020-247420	vegmon@insight.com
98	Vegpro Group (K) Ltd	Nairobi		Dipesh Devraj	0722 204391	ddevraj@vegpro-group.com
99	Vert Ltd			General Manager	254-020-4451489	info@vertfresh.co.ke
100	Victoria Import & Export Co. Ltd					Okisegere Ojepat + 254 20 4409947
101	W.M.C			Mr.Daniel Kibe	0722-924638	
102	Wamu Investments Ltd	Nairobi	Fruits & Vegetables	Mrs Peris Muriuki	020-822441	peris@wamu-investments.com
103	Wesyways Ltd			Dr.Solomon Karanja	0722-341968	skaranja@yahoo.com
104	Wilham (K) Ltd			Mrs. Mamta Mahajan	+ 254 20 827 488	info@eaga.co.ke
107	Woni Veg-Fru Exporters			Mr.Mutiso/Jane Mutiso	020-545303	woni@swiftkenya.com

GLOWERS AND EXPORTERS

	ORGANISATION	LOCATION	PRODUCT	CONTACT PERSON	PHONE	EMAIL
1	AAA Roses	Rumuruti	Roses	George Hopf	Tel:+254 733746737	George@aaagrowers.
2	Africa blooms	Rumuruti	Roses	samir chandokrkar	0735-384552	samir.chandokar@xflora.net
3	Africalla	Nairobi	Zantedeschia	Mr. Rob Holtrop	Tel:+254 721-837968	
5	Afriscan Kenya Ltd	Naivasha	Hypericum	Reuben kanyi	0723 920237	
6	Agriflora	Njoro	Flowers	Clement Kipnetich		cngetich@sianroses.co.ke
7	Alani Gardens		Roses	Mrs. Judith Zuurbier	0722 364943	alani@alani-gardens.com
8	Altitude Flowers		Flowers	Dominic Koech	0722 364943	
9	Aquila Flowers	Nairobi	Roses	Mr.Yogesh	050-506609	info@aquilaflowers.com
10	Baraka Flowers	Ngurika	Roses	Mr.Peter/Lucy	0720 976900	peter@barakaroses.com
11	Batian Fowers	Timau	Roses	Mr.G.Muriungi	0720 102237	dirk@batianflowers.com
12	Beauty Line	Naivasha	Gypsophila	Mr.Peter Gathiaka	0722 676925	peter@beautyline.com
13	Bekya Floriculture				0722 311468	admin@bekya.com
14	Benev Flora Ltd			Mr.John Ndungu	0722 318793	benevflora@gmail.com



Flower Growers and Exporters

COMPANY	LOCATION	CONTACT PERSON	PRODUCT	TELEPHONE	E-MAIL ADDRESS
15 Big Flowers			Mr.Gordon More	0723 473585	gordon.more@bigflowersltd.com
16 Bigot Flowers	Naivasha	Roses	Mr.Jagtap K	0722205271	jagtap.kt@bigotflowers.co.ke
17 Bila shaka	Naivasha	Roses	Ms.Judith Zuurbier	04787898169	bilashaka.flowers@zuurbier.com
18 Bondet	Nanyuki	Erygium	Richard Fernandes	5232 1/2	
19 Black Petals Ltd.	Limuru	Roses	Mr.Nizra Junder	0722848560	nj@blackpetals.co.ke
20 Black tulip flowers			Deepali gupta	0722 825429	gardenflora@swiftkenya.com
21 Bliss flora Ltd.	Nakuru	Ocean Song	Mr.Shivaji Wagh	Tel:+254-720-895911	shivaniket@yahoo.com
22 Bloomingdale Roses	Timau	Roses	Mr.Sunil Chaudhari	0732 373322	sunil@bloomingdaleroses.com
23 Bogmack farm	Timau	Roses	MR.Anderson	0722 350020	kathendusn@yahoo.com
24 Blue Sky Ltd		Roses	Mr.Mike	0720 005294	info@blueskykenya.com
25 Branan & Mosi Ltd.	Thika	Roses	Mr.Anthony Wahome	Tel: +254 722 204911	mwaiwahome@mosiflowers.co.ke
26 buds&blossoms-bliss flora	Nakuru	roses	mr.shivaji	0720 895911	shivaniket@yahoo.com
27 Caly Flora Ltd .	Nairobi	Cut Flowers	Mrs.Catherine Gichungu	0725456930	info@calyflora.co.ke
28 carnation plants ltd	Athi River	carnations	Mr.E.fieldman	254-2045162	evi@exoticfields.com
29 cartesian blooms international		exporter	mr.patrick ndei	0721 629769	sales@cartesiablossomsint.com
30 Carzan Flowers	Naivasha	Carnations	Mrs.Carol Manji	0 707110030	info@carzankenya.com
31 Celinico Flowers	Limuru	Roses	Mr.Chris Shaw	254-066721710	celinico@nbinet.co.ke
32 Charm Flowers	Kitengela	Roses	Mr.Ashok Patel	0202222433	info@charmflowers.co.ke
33 Colour Crops	Timau	Summer Flowers	Mr.Simon Baker		simon@siluba.co.ke
34 Colour Vision Roses Ltd	Naivasha	Rose Breeders	Mr.Peter Vandemeer	254-05050310	petervandemeer@terranigra.com
35 Credible Blooms	Nairobi	Roses	Mr.Francis/ Ms.Nancy	020 2102019	info@credibleblooms.co.ke
36 De Ruiters	Naivasha	Roses	Mr.Sebasten Alix	254-720601600	info@drea.co.ke
37 Desire Flora K.Ltd.	Isinya	Roses	Mr.Rajaat Chaohan	Tel: +254 0724264653	info@desireflora.com
38 doralco kenya ltd			mrs.c.chenet	020-7122179	info@doralco.co.ke
39 dummen orange				0733 609863	s.outram@dummenorange.com
40 Elbur flora	Elburgon	Roses	Mr.Peter Kagotho	Tel:+254 724722039	eflora@africaonline.co.ke
41 Elpis arm ltd	Nairobi	Summer flowers	Mrs.nimo kimwaki	0722 738988	nimo@elpisfarms.com
42 Enkasiti Flowers	Thika	Roses	Mr.Thambe	Tel:+254 724722039	enkasiti@gmail.com
43 Esmeralda breeding	naivasha	Summer flowers	Mr.loui hooyman	31-297-385444	loui@esmeraldafarms.nl
44 Equator Flowers	Eldoret	Roses	mr.charles	0721 311 279	info@sianroses.co.ke
45 Equinox	Timau	Roses	Mr. Tom Lawrence	Tel:0722312577	tom@equinoxflowers.com
46 Ever Flora Ltd.	Juja	Roses	Mr.Khilan Patel	Tel:0675854406	everflora@dmbgroup.com
47 Exotic(Tegmak Blooms)	Geta,Kipipiri		Mr.Edward Kagachu	0722 292242	tegmakblooms@gmail.com
48 Fantasy Flora Ltd		Exporter,Cut Flower	Mr.Henry Onyango	020 2352813	henry@fantasy-flora.com
49 Fides Kenya Ltd	Embu	Roses	Mr.Francis Mwangi	254-06830776	info@fideskenya.com
50 Finay's Siraj	Timau	Carnations,Roses	Mr Paul Salim	Tel: 0722470717	paul.salim@finlays.net
51 Finlay Chemirel	Kericho	Roses	Mr.Aggrey Simiyu	Tel:0722601639	aggrey,simiyu@finlays.co.ke
52 Finlay' Lemotit	Londian	Carnations	Mr.RichardSiele	Tel:0721486313	Richard.siele@finlays.net
53 Finlay's Flamingo	Naivasha	Roses,Fillers	Mr.Peter Mwangi	Tel:+254 722204505	peter.mwangi@finlays.net
54 Finlay's Kingfisher	Naivasha	Roses	Mr. Charles Njuki	Tel: +254-724391288	Charles.njuki@finlays.net
55 Finlays Sirimon	Timau	Lilies	Ms.Purity Thigira	Tel:0733606411	purity.thigira@finlays.net
56 Flamingo Flora	Nairobi	Roses	Sam	Tel:0721993857	s.ivor@flamingoflora.co.ke
57 Flora Delight	Limuru	Summer flowers	Mr.Hosea Andanyi	Tel:0724373532	hosndai@yahoo.com
58 Flora Kenya	Nairobi	Roses	Mr.Jack Kneppers	Tel: +254 0733333289	jack@maridadiflowers.com
59 Flora ola	Solai		Mr.Wafula	0708382972	florolaltd@gmail.com
60 Florema(K)Ltd	Naivasha	Begonia	Mr.Perter Maina	050-2021075	info@floremaKenya.co.ke
61 Florensis Hamer	Naivasha	Cuttings	Mr.Edyy Verbeek	02050010	verbeek@florensis.co.ke
62 flower connection ltd			Arun Mushra	0710625484	arun@eaga.co.ke
63 Fontana Ayana	Nakuru	Roses	Mr.Gideon Maina	0721178974	Gideon@fontana.co.ke
64 Fontana Ltd		Roses	Mr.A.C.Achaiah	051-343156	kakul@fontana.co.ke
65 Fontana Ltd-Salgaa	Salgaa	Roses	Mr.Girish Appana	0734333313	girish@fontana.co.ke
66 Fontana-Akina	Nakuru	Roses	Mr.Girish Appana	0 722728441	girish@fontana.co.ke
67 Fourteen Flowers			Mr.A.C.Achalia	051343322	sarju@fontana.co.ke
68 Gatoka Farm	Thika	Roses	Mr.M.K Gacheru	0733619505	gatoka@swiftkenya.com
69 Golden Tulip	Olkalau		Umesh	0739729658	
70 Greystones Farm			Mr.Silas Mbaabu	0722312316	mbaabu@greystones.co.ke
71 Groove	Naivasha	Roses	Mr.John Ngoni	0724448601	groovekenya@gmail.com
72 Hamwe Ltd.	Naivasha	Hypericum	Mr.Adrew Khaemba	0722431170	hamwe.production@kariki.biz
73 Harvest (K) Ltd.	Athi River	Roses	Mr.Farai Madziva	0722849329	farai@harvestflowers.com



Flower Growers and Exporters

74	Hatabor Rainbow Blooms	Limuru		Mr. John Ndungu	07213850959	
75	Highlands Plants	Olkalau	Outdoors	Mr. Leonard Kanari	0721345829	sales@highlandplants.co.ke
76	Interplant Roses	Naivasha	Breeders	Mr. Geoffrey Kanyari	0712215419	info@interplantea.co.ke
77	Isinya Roses	Isinya	Roses	Mr. Yash Dave	0721403175	info@isinyaroses.com
78	Jedini Ventures Co Ltd	Thika	Exporter	Mr. Nicholas Mwaniki	0727 237354	info@jedini.co.ke
79	Jatflora	Gilgil	Summer flowers	James Oketch	0724418541	jatflora@gmail.com
80	Kabuku Farm			Mr. S Thirumalai	020 822025	info@eaga.co.ke
81	Kalka	Isinya		Mr. Shiva	0715 356540	shiva@kalkaflowers.com
82	Karen Roses Ltd	Karen	Roses	Mrs. R Kotut	020-2078270	karen@karenroses.com
83	Kariki Limited	Juja	Hypericum	Mr. Samuel Kamau	0722 337579	samwel.kamau@kariki.co.ke
84	Karuturi Flowers	Naivasha	Roses	Mr. Sylvester Saruni	0722873560	henry.muller@karuturi.com
85	Kenflora	Kiambu	Roses	Mr. Aleem Abdul	0722311468	info@kenflora.com
86	Kentalya	Naivasha		Mrs. Lynette	0733 549773	lynette@kentalya.com
87	Kenya Cuttings	Thika	Cuttings	Mr. Martin Kolvenbach	060-2030280/81	martin.kolvenbach@syngenta.com
88	Kimarflowers	Outering Road	Exporter	Margret Joseph	0721 974596	
89	Kongoni Farm	Naivasha	Roses	Anadpatil	0728 608785	anad.patil@vegpro-group.com
90	Kimman Roses Ltd.	Nairobi	Catch, Versilia	Mr. Daniel Moge Maina	Tel: +254-721734104	kimmanexp@gmail.com
91	Kisima	Timau	Roses	Mr. Martin Dyer	0722 593911	flower@kisima.co.ke
92	K-Net Flowers Ltd			Mr. Mike King'ori	020-3875662/3	info@k-netflowers.com
93	Kreative Roses Ltd.	Nairobi	Roses	Mr. Bas Smit	Tel: +254 733501640	info@kreative-roses.com
94	Kudenga Flowers	Mau Summit	Hypericum, Erygiums	Mr. Joseph Juma	0725 643942	kudenga.fm@kariki.biz
95	Lafto Roses Plc	Holland		Gerard Van Der Deijl	Tel: +31-71-3660605	sales@vanderdeijlroses.nl
96	Lakshmi Group Ltd.	Nairobi	Roses	Mr. Serghei	Tel: +254 714551969	serghei.lakshmigroup@gmail.com
97	Larmona	Naivasha	Roses	Mr. Peter Mureithi	254-722238474	lamonaaccounts@africaonline.co.ke
98	Lauren International Flowers Ltd			Mr. Joseph Tawk	020-2358119	laurenflowers@accesskenya.co.ke
99	Lex + Rose Creators	Naivasha	Roses	Mr. Steve Outram	Tel: +254-733609863	steve@lex-qa.com
100	Leekem Holdings Ltd	Nyandarua		Mrs. Margaret Muthoni	0720 267004	leekement@gmail.com
101	Liki Riverfarm	Nanyuki		Mr. Madhav Lengare	0722 202342	madhav@vegpro-group.com
102	Live Wire Ltd	Nanyuki	Hypericum, Lilies	Mr. Esau Onyango	0728 606872	info@livewire.co.ke
103	Lobelia Farm	Timau	Roses	Mr. Peter Viljoen	254-06241060	info@lobelia.co.ke
104	Loldia Farm	Naivasha		Mr. Rotich/Gary	0721 237936	locland@bidii.com
105	Longonot Horticulture	Naivasha	Roses	Mr. Shando Rai	254-050501473	longonot@vegpro-group.com
106	Maasai Flowers	Kitengela	Roses	Mr. Wilfred Munyao	254-725848912	wmunyao@sianroses.com
107	Magana Flowers Kenya Limited.	Kiambu	Roses	Dr. Magana Njoroge	Tel: +254 202017651	mnmungai@maganaflores.com
108	Mahee Flowers Ltd	Olkalau	Roses	Vijay Kumar	254-020822025	info@eaga.co.ke
109	Mahee Flowers Ltd	Olkalau	Roses	Mr. T. Srinivasan	020-827488	peeush@eaga.co.ke
110	Maridadi Flowers Ltd	Naivasha	Roses	Jack Kneppers Md	07-33333289	jack@maridadiflowers.com
111	May Flowers Ltd			Mr. Maarten Brusse	050 21174	cuttings.ke@royalvanzanten.com
112	Mau Agritech	Isinya	Roses	Mr. Kori	254-722206318	Gm@Mauagritech.Com
113	Molo River Roses	Musererechi		Mr. Alice Mureithi	0724 256592	andrewwambua@yahoo.com
114	Mosi Ltd	Thika	Roses	Ms. Alis Murugi	254-722204911	alicemurugi@mosiflowers.co.ke
115	Morop	Bahati	Summer Flowers	Wesley Tonui	0720 983945	wesley@moropflowers.co.ke
116	Mount Elgon Orchards Ltd	Kitale	Roses	Bob Andersen	07-35330592	info@mtelgon.com
117	Mukungi (Tegmak Blooms)	Kipipiri		Mr. Patrick Chege	0720 663625	tegmakblooms@gmail.com
118	Mweiga Blooms Ltd	Mweiga	Roses	Marketing Manager	07-33741203	info@mweigablooms.com
119	Multigrow Investments		Summer Flowers	Mr. Peter Murimi	0724 977259	5growers09@gmail.com
120	Mzurrie Flowers			Mrs. Irene Njeru	0722 203630	irene@winchester.co.ke
121	Nathe Enterprises	Naivasha		Marketing Manager	254-722526959	www.natheenterprises.co.ke
122	Nature Grown Flowers Ltd			Mr. W. Kamani	020-2152176	naturegrown@mbambu.com
123	New Hollands Flowers	Olkalau	Roses	Mr. Francis	Tel: 700718570	guna@bth.co.ke
124	Ngong Roses	Ngong	Roses	Mr. Charles Maina	Tel: 0202700660	maina@aricanonline.co.ke
125	Nini farm	Naivasha	Roses	Mr. Philip K	Tel: 05050406/50161	philipk@niniintl.com
126	Nirp EA Ltd.	Naivasha	Rose Breeder	Mr. Alessandro Ghione	Tel: 203563141	info.ke@nirpinternational.com
127	OI Njorowa Ltd.	Naivasha	Roses	Mr. David Mousley	Tel: 0722 833 122	mbegufarm@iconnect.co.ke
128	Olij Rozen	Naivasha	Rose Propagator	Mss. Sally Nicholias	Tel: 735338062	s.nicholias@olijrozet.nl
129	Oman-Africa Blooms-Xpressions Flora	Nakuru	Roses	Mr. Inder Nain	Tel: +254 733724029	flowers@xfloora.net
130	Oserian Development Company	Naivasha	Rose, Fillers	Mrs. Dorcas Ngure	Tel: +254738700048	dngure@crs.co.ke
131	panacol international ltd	kitale		mr. paul wekesa	0722 748298	paul.wekesa@panacol.co.ke
132	panda flowers	naivasha		mr. richard	050 50046/50198	info@pandaflowers.co.ke
133	penta flowers	Thika		mr. tom ochieng	0723 904006	penta@kenyaweb.com
134	pj thande			ms. elizabeth thande	0722 380358	elizabeth@wefarm.co.ke
135	P.J. Dave Group	Nairobi	Cut Roses	Mr. Niall Deacon	Tel: +254 732205577	niall@pjdave.com
136	P.P flora	rongai		Robert Rukingi	254-1890087	ppflora02@gmail.com
137	Panda Flowers Limited.	Naivasha	Roses	Mr. Wanderi Kariuki	Tel: +2545050046	wanderi@pandaflowers.co.ke



THABITI Fertilizers

• UREA 46%N • DAP 18:46:0 • CAN 26%N

Flower Growers and Exporters

NO.	COMPANY	LOCATION	CONTACT PERSON	PRODUCT	TELEPHONE	E-MAIL ADDRESS
138	Panocal International	Kitale	Roses	Mr. Paul Wekesa	Tel: +254 722748298	pwekesa@africaonline.co.ke
139	Penta Flowers Ltd.	Thika	Roses	Mr. Tom Ochieng	Tel: +254 733625297	tom@pentaflowers.co.ke
140	PJ Flora	Isinya	Roses	Mr. Absalom O	Tel: +254 721423730	pjdaveflowers@wananchi.com
141	Plantations Plants	Naivasha	Geraniums	Mr. William Mumanyi	Tel: 723622456	pplants@kenyaweb.com
142	Pollen Sygenta Ltd.	Ruiru	Cuttings	Mr Daniel Kisavi	Tel: 733603530	Daniel.kisavi@sygenta.com
143	Porini Farm	Keringet	Roses	Pitamber Ghahre	Tel: 0726774955	porine: isinyaroses.com
144	Preesman Kenya	Nakuru	Roses	Mr. Michael Kikwai	Tel: 0720574011	kikwai1980@yahoo.com
145	Primarosa Flowers Ltd.	Athi River	Roses	Mr. Santosh	Tel: 0712030610	santosh@primarosaflowers.com
146	Primarosa Flowers Ltd.	Athi River	Roses	Mr. Dilip Barge	Tel: 0733618354	dilip@primarosaflowers.com
147	Primarosa Zuri Flowers	Nyahururu	Roses	Mr. Vijav	Tel: 0721823675	vj@zuri.co.ke
148	Protea Farm	Timau	Roses	Mr. Philip		info@lobelia.co.ke
149	Racemes	Naivasha	Gypsopilla/vegs	Mr Bonny	Tel: 0721938109	bonny@kenyaweb.com
150	Ravine Roses Ltd.	Eldama Ravine	Roses	Mr. Peter Kamuren	Tel: 722205657	pkamuren@karenroses.com
151	Redwings	kabarak		mr.sayer simon	0722 578684	sayer@redwingltd.co.ke
152	Redlands Roses	Ruiru	Roses	Ms. Isabelle Spindler	Tel: 733609795	gm@redlandroses.co.ke
153	Rift Valley Roses	Naivasha	Roses	Mr. Peterson Muchiri	254-721216026	rvr@livewire.co.ke
154	Riverdale Brooms Ltd.	Yatta	Roses	Ms. Zipporah Mutugi	Tel: 733722180	rdale@swiftkenya.com
155	Rose plant	kitengela	roses	Mr. Atenus		
156	Rosepath petals ltd		roses	Director	254-51-2216400	sales@rospathroses.com
157	Roseto Ltd.	Nakuru	Roses	Mr. Yogeesh	Tel: 0737453768	roseto@megaspingroup.com
158	Savannah International	Naivasha		Mr. Ignatius Lukulu	0728 424902	l.lukulu@savannahinternational.com
159	Schreurs EA Ltd.	Naivsha	Roses	Mr. Haiko Backer	Tel: +2545050203	sales@schreurskenya.com
160	Selecta Flora	Nairobi	Summer flowers	Mrs. Mary Mwangi	Tel: +254725075569	sales@floratrends.co.ke
161	Shade Horticulture	Isinya		Mr. Ashutosh Mishra	0722 792018	mishra@shadehorticulture.com
162	Shalimar Flowers (K) Ltd	Naivasha	Roses	Export Manager	254-722811832	info@eaga.co.ke
163	Sececta Kenya/Kpp	Juja		Mr. Wilson Kipketer	020 352557	w.keter@selectakpp.com
164	Sian Agriflora (Sian Roses)	Nakuru	Roses/Lilie	Mr. Jos Van Der Venne	Tel: +254722203630	info@sianroses.co.ke
165	Sian Maasai Flowers	Kitengela		Mr. Andrew Tubei	254-722728364	atubei@sianroses.co.ke
166	Sian Roses	Kitengela	Roses	Mr. Jos van der venne	Tel: 0202170540	info@sianroses.co.ke
167	sierra Roses	Njoro		Sharrif	0787 243952	farm.sierra@megaspingroup.com
168	Simbi Roses Ltd.	Thika	Roses	Ms. Pauline Nyachae	Tel: +254204448230	Pauline@sansora.co.ke
169	Sirgoek Flowers	Eldoret		Mr. Andrew Kosgey	0725 946429	sirgoek@africaonline.co.ke
170	Solo Plant Kenya Ltd	Kiambu	Roses	Mr. Haggai Horwitz	254-732439942	hagai@soloplant.co.ke
171	star flowers	Naivasha		mr. sailesh kumar	0722 203750	sailesh@vegpro-group.com
172	Subati Flowers	Subukia & kinangop	Roses	Mr. Ravi Pate	Tel: 726657448	info@subatiflowers.com
173	Suera Flowers Ltd.	Nyahururu	Roses	Mrs. Susan Muriithi	Tel: 724622638	sueraffarm@sueraffarm.sgc.co.ke
174	sugutu flowers			Mr. Yabesh Marga	254-733719053	sugutugrowers@yahoo.com
175	Sun Buds	Naivasha	Hypericum	Mr. Paul Kamau	Tel: +254 728339953	sunbudsltd@gmail.com
176	sunrose nuseries	Athi River		Mr. Nehemiah.A.	254-0203586939	info@sunrosenuseries.co.ke
178	Tambuzi flowers	narumoru	roses		254-0623101917	info@tambuzi.co.ke
179	Terra Nlgra	Flower park	roses	Mr. Peter Vandemeer	254-722926588	petervandemeer@terraniagra.com
180	terrafleur			mr.chris kaluku	67 30063	chris@terrafleur.com
181	Terrasol	Limuru	Cuttings	Mr. Sjaak Nannes	Tel: 0722387943	info@terrsolkkenya.com
182	Timaflo Ltd.	Timau	Roses	Mr. Julius Kinoti	Tel: 06241263	timaflo@wananchi.com
183	Timau flair	timau	roses	MR. Philip Ayiecha		
184	Transebel ltd	thika	roses	Mr. David Muchiri		
185	Tropiflora	Limuru	Carnations	Mr. Krasensky	Tel: 724646810	tropiflora@tropiflora.net
186	tsara rozen kenya ltd			mr.jan molenoer	0734 417157	jan@tsararozen.com
187	Tulaga Flowers	Naivasha	Roses	Mr. Denis Wedds	Tel: 724819377	tulagaflowers@africanonline.co.ke
188	Twiga roses	naivasha	roses	mr.pius kimani	0721 747623	pius.kimani@gmail.com
189	Uhuru Flowers	Timau	Roses	Mr. Ivan Freeman	Tel: +254722863252	ivan@uhuruflowers.co.ke
190	Kibubuti	Kiambu	Roses	Mrs. Suzan Maina	Tel: 0203542466	info@valentineflowers.com
191	van den berg roses	Naivasha	roses	Mr. Johan Remeus	254-0505050439	johan@rosekenya.com
192	vegpro-k ltd	timau	roses	Mr. vivek sharma		vivek@vegpro_group.com
193	Wac international	naivasha		mr.richard	0722 810968	richard@wac-international.com
194	waridi ltd	Athi River	roses	Mr. PD kadlag	254-724407889	kadlag@waridifarm.com
195	windsor ltd	thika	roses	mr. Pardeep	254-0674208	farm@windsor-flowers.com
196	wildfire flowers	naivasha		mr.p kadlag	0722 780811	peterszapany@wildfire-flowers.com
197	wilmar agro			mr.w.kimani	067-30176	wilmar@bidii.com
198	Xpression Flora Ltd.	Njoro & Saalgaa	Roses	Mr. Mangesh	Tel: 720519397	info@xflora.net
199	Zena Roses	Thika	Carnations, Roses	Mr. Rakesh	Tel: 0724631299	info@zenaroses.com



Guangzhou Int'l Flowers Exhibition 2017

Monday March 13 - Wednesday March 15

Guangzhou International Sourcing Centre
Guangdong • Guangzhou • China

Organizer



Co-Organizer



www.chinaflowertradefair.com





GLOBALG.A.P.



LOOKING FORWARD TO MEETING YOU

at IPM Essen, Germany
Booth A29 in Hall 8
24-27 January 2017

www.globalgap.org/fo

