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THE LEADING FLORICULTURAL JOURNAL IN THE REGION

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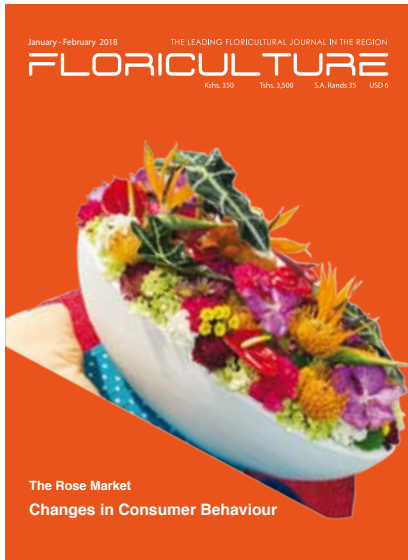
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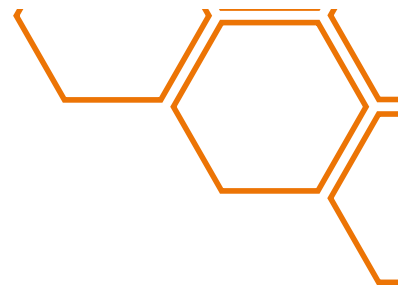
## The Leading Floriculture Magazine

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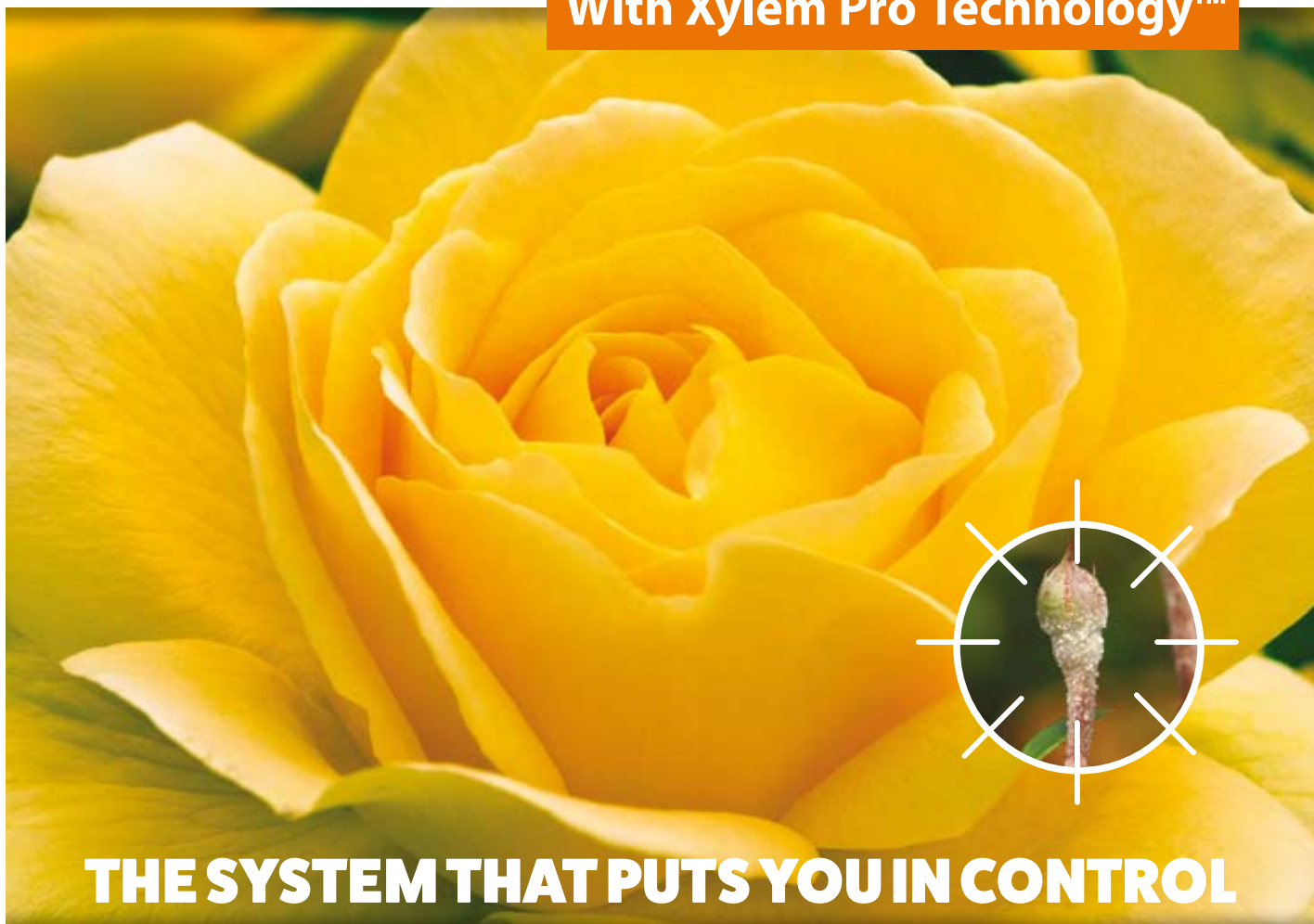
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## The Value of Brands.

Brands are valued at million, often billion of US dollars. For many successful companies there brands represent their most prized assets. So why are the brands valuable? A powerful well-regarded brand can shift the demand curve. A brand stimulates consumer interest and desire for product and services, thereby increasing the volumes sold and/or the premium that the brand can command over weaker branded alternatives. For the owner, possession of a powerful brand also reduces risk. For example, during an economic downturn the loyalty and trust consumers have in the key brand result in less switching than evidenced by rivals. When demand picks up strong brands tend to enjoy the upswing quicker, whilst in normal conditions, ownership of an influential brand provides an opportunity to enhance revenue through product extensions, licensing geographical expansion.

In short, brand provides a barrier to competitors by creating an essential competitive advantage over rivals. Nevertheless, the strength of the reputation protects against newcomers.

Brands also impact positively upon other stakeholder groups beyond the consumer. The very best employees and graduates, for instance, will be attracted to companies with high profile and esteemed brand names. It has been proven employees are considerably more positive about their employers and twice as likely to recommend them, compared to employees working for weaker branded rivals.



Even investors and analysts recognize the power of reputation and feel more confident investing in companies that own highly perceived brands.

To conclude, brand generates wealth for the brand owners by positively influencing the full spectrum of stakeholders. One final point is that brands can also generate wealth not just for their owners but also for the nation.

So have we branded our flowers?

Have a branded reading.

Masila Kanyigi



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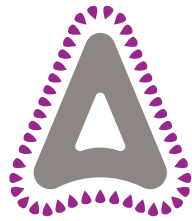
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Logistics refers to the whole framework whether physical, technical or administrative for the transportation of perishables. Logistics start right away from the farm to the consumer of the product. Employing better logistics in the industry will definitely lead to profitability and reduce wastage.



## Enhancing Africa's flower power through better logistics

The second edition of the Flower Logistics Africa (FLA) and Perishable Logistics Africa (PLA) was held on the 22nd and 23rd November consecutively at the Radisson Blu Hotel in Nairobi. The event was organised by various stakeholders and went on successfully for the two days. The occasion brought together key industry players including growers, exporters, freight forwarders, the airlines etc.

The conference was structured in to panel discussions where various panellists handled different topics as the audience actively participated in the discussions. The discussions on Flower logistics revolved on the theme: 'Enhancing Africa's flower power through better logistics' and highlighted issues on technology trends in cool chain management, standards in packaging of flowers etc. while for the perishables was 'Creating Africa's future logistics grid for perishables' and covered topics on industry collaboration, better

logistics leads to profitability and reduces wastage, temperature management as well as transparency in transport from farm to fork. Logistics refers to the whole framework whether physical, technical or administrative for the transportation of perishables. Logistics start right away from the farm to the consumer of the product. Employing better logistics in the industry will definitely lead to profitability and reduce wastage.

The Kenya Flower Council Chief Executive Mrs. Jane Ngige said, "In order to achieve better logistics, information sharing is vital for the value chain to run smoothly hence a good communication strategy should be set to ensure that information is shared among all the actors involved". She added that growers need to take responsibility to ensure they understand the value chain. Again, there should be implementation of standards. It is important to make ensure that after setting the standards, they are





followed to the latter. Taking up responsibility by each of the actors in the value chain is important as it enables them to perform their duties diligently.

Moreover, Government involvement and participation in the industry will ensure that better logistics are attained. For example, the government should integrate associations to enable farmers to access information easily. Capacity building is yet another factor that aims at achieving better logistics through offering training services to players along the value chain.

Technology is the hallmark in ensuring that better logistics are attained. For Instance, creating the traceability system will help a big deal in ensuring that products can be traced right from the point of origin to the point of consumption. The Use of data loggers ensures that a good track of events is kept whereas the use of electronic programmes will greatly reduce paperwork.

“Processes need to be simplified, and technology will help in this. Effective regulations are required to keep the industry in check. But those should not be laborious ones,” said Susan Akwesi, manager, Saudia Cargo pointing towards one of the major concerns of the industry.

The industry is also looking to share data to bring in efficiency. Liege Airport’s cargo sales manager, Eric Gysen highlighted that the Liege airport on an experimental basis started sharing data with the flower

value chain operators.

Communication systems should be digitalized so that the access to information is made easier for each of the players along the value chain. Temperature monitoring devices and cooling facilities should be set up at warehouses to sustain the quality of the products. Adoption of barcode reading technology enables the grower to know where the product needs to be stored, how efficiently it is distributed to the warehouse and to customers and to track each product that is sold. This helps in managing inventory information and concurrently increases both productivity and efficiency.

The industry too, should be at upfront to create better logistics. For instance, there has been harmonization of codes of practices in to one basket of standards. It should ensure that these standards are



implemented.

Peter Musola, cargo commercial manager at Kenya Airways, pointed out “how collaboratively the stakeholders can work together to support and improve speed in flower trade.”

All were in agreement when the speakers called for a more collaborative approach from all stakeholders in the flower trade value chain that would be the way forward for the flower industry. Stakeholders play a pivotal role in ensuring that better logistics for both flower and perishables is attained. For instance, there should be engagement with the interveners e.g. those who issue permits, those responsible for inspection services etc. The

airlines should improve the speed of perishables to cut out the issues of delays that are currently being experienced. In Order to ensure that better logistics are attained, it is important for each player along the supply chain to ensure that the quality of product is maintained up to the final destination. All the processes right from the point of origin to the point of consumption should be seamless.

The panellists who steered the discussions included Jane Ngige –KFC CEO, Bernard Oosterom - AIPH, Christo van der Meer - Flora Holland, Guy Symondson - EA Cargolite, Elizabeth Kimani - Maasai Flowers, Chris Mclean- Panalpina Airflo, ; Eric Gysen - Liege Airport, Conaa D’souza- Veg Pro Group, Sarah Wangui- Network Airline Services, Eliud Njenga- Pigeon Blooms, Parith Shah- Silpack, Jeroen van get Hulst, Flower watch , Eddy Verbeek - Florensis, Wouter Boeke – Lufthansa Cargo, Dr. Isaac Macharia – Kephis, PeterMusola – Kenya Airways, David Onyango – Flamingo Horticulture, Gladys Maina- Dysa Consulting, amongst others.

## Standardisation in Flower Logistics a High Priority:



increase in the coming years.

Jane Ngige, chief executive officer of Kenya Flower Council (KFC) who was part of a panel discussion, emphasised the need for a single standard for the flower industry. “Now growers follow different standards that are set over the period, the supply chain industry follows a different code, airlines follow IATA standards. So what

integrations are rapidly happening in the supply chain. The technology adaptation at the grower level is different from what is happening at the logistics level or at the airports/ airlines levels. This is again pointing to the pressing need for a single integrated platform that makes the communication easier.

The event which was organised by Logistics Update Africa, was sponsored by Saudia Cargo, Holland Flower Alliance, Kenya Airways Cargo, Africa Flight Services, Astral Aviation, Network Aviation Group, Liege Airport, Flower Watch.

The conference was also supported by industry association such as Kenya Flower Council (KFC), Cool Chain Association (CCA), Kenya Plant Health Inspectorate Service (KEPHIS), Ethiopian Horticulture Producer Exporters Association (EHPEA), The International Association of Horticultural Producers (AIPH), Union Fleurs – the international flower trade association, Kenya International Freight and Warehousing Association (KIFWA) and WCA Perishables.

we are looking at is to create a uniform code and link it to the IATA standards as it is followed by every operator in the world,” she said.

Though KFC may be able to put together a single code for the flower trade industry, who will take the lead to implement the standarsidation remains a question.

Technology took centre stage of discussions as

**N**ovember 23, 2017: The second edition of Flower Logistics Africa 2017 had a full house representing a cross-section of the entire value chain of flower trade. Revolved around the core theme of “Enhancing Africa’s flower power through better logistics,” the event was held at the Radisson Blu Hotel in Nairobi and attracted participation from Africa and outside.

The participants of the day-long conference deliberated on the typical challenges faced by the flower industry as a whole. The discussions revolved around the need for standardisation that will enhance exports and gain traction for Kenya’s flower industry in the global market.

The changing paradigms like the entry of e-commerce players are expected to drive the flower markets in the coming years. The flower trade players may have to look towards a ‘Look East’ policy as demand from China will



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# HFA looks at Cloud-based Community Platform to Provide Real-time Information

To be categorised as a perishable centre, a facility must have features such as cool storage, and specially trained handlers, optimising the facility for the specific requirements that come with the handling of perishables, says Bart Pouwels, director Business Development Cargo, Amsterdam Airport Schiphol, in an exclusive interview with Renjini Liza Varghese of Logistics Update Africa.

**Q What are the three main challenges that need attention in the handling of flowers and perishables?**

Linking flower cargoes with their air cargo information on box level continues to be a challenge for grower countries, and the Holland Flower Alliance (HFA) is investigating how procurement data can link to logistics data (Air Waybill). If you combine them, you have got really, for the entire chain, from manufacturer to the buyer, transparency in the chain.

The HFA is working with local governments in Kenya and the Netherlands to see how they can speed up the digitalisation of the paperwork that governments need to submit for shipments - this includes the inspection process that takes place in the flower industry, e.g., the phyto paperwork that needs to be submitted.

These phyto tests must be done by law to check exports for injurious pests, diseases, noxious weeds, or any contagious conditions which could affect native flora.

Digitisation of the cool chain is a big issue. This is something the HFA is addressing with the development of a Cloud-based platform which all stakeholders can use to monitor the status of shipments via a track and trace function, and are working towards being able to monitor aspects such as temperature.

**Q Quantify the jump witnessed in flower/ fruits exports. And which geographical area would export more perishables into Amsterdam?**



The country sending the largest amount of fresh cut flowers to Europe is Kenya, and 90 percent of all Kenya's exports are bound for the Netherlands. Kenya produces more than 50 percent of all flowers flown by Kenya, Ethiopia, Ecuador, Colombia, and Miami, USA, combined.

The second largest producing country for the Netherlands is Ethiopia. The South American production is equal to 20 percent of the East African production.

The Netherlands is the biggest importer of fresh cut flowers in Europe with 90 percent market share. In Amsterdam, fresh cut flowers represent almost 15 percent of Schiphol's annual cargo volume.

**Q Elaborate on the infrastructure facilities for perishable handling in the airport?**

We have extensive facilities for perishable cargoes in multiple controlled-temperature zones, featuring refrigerated/deep-freezer and heated storage/handling facilities. Many members of the Schiphol Cargo Community have dedicated perishables centres at the airport. A few of these are forwarding and handling companies Kuehne & Nagel, Interfresh, IP Handlers, Panalpina which has recently invested in their perishables operations by acquiring the Dutch perishables agent Airflo, and Hellmann Perishable Logistics, part of Hellmann Worldwide Logistics, which has its dedicated perishables centre at Amsterdam Airport Schiphol.

Last year, Kuehne + Nagel decided to make

Amsterdam Airport Schiphol their European perishables hub.

To be categorised as a perishable centre, a facility must have features such as cool storage, and specially trained handlers, optimising the facility for the specific requirements that come with the handling of perishables. Each organisation that deals with perishables at Schiphol has decades of experience.

**Q Throw some light on the technology adaptation in cargo handling. What percent of investments are allocated for technology up-gradation / mechanisation?**

For technology to make an improvement to the quality of the cool chain, it must be implemented on a large scale. It must be generic so that each organisation can apply them, across their existing platforms, and connect their own system to their partners'. Cloud-based solutions; track and trace scanners, RFID, and temp loggers can all help us demonstrate the quality of our operations to our shippers, but only when it is rolled out across the whole chain.

This is why the HFA is working on a Cloud-based community platform that will help all stakeholders in the flower supply chain, from the grower to the auction in the Netherlands, have real-time information throughout the chain.

Here's an example - if the farm updates the platform in real-time with quantity of stems, type of rose etc., and then as soon as the shipment reaches the forwarders' facility at the airport, they add Air WayBill information, the receiver - whether that be Royal FloraHolland or a handler - can now see exactly which carton boxes are being loaded onto the aircraft in Nairobi. If there is a delay in the flight, the receiving party in the Netherlands knows immediately and is able to adjust their planning to accommodate this.

Courtesy Logistics Update Africa.

## Paper Work

# Airlines Loosing Millions

JKIA-based airlines say they have been compelled to take responsibility for decline in quality of horticultural goods on delays, leading to compensation of owners for losses. The carriers and other players told the 2017 flower logistics conference that too much paper work by the plants inspector is creating a bottleneck along the value chain.

Cargo airlines are paying out millions of shillings to customers due to what they term as stringent Kenya Plant Inspectorate Service (KEPHIS) approvals delaying export of perishable goods. The Jomo Kenyatta International Airport-based airlines say they have been compelled to take responsibility for decline in quality of horticultural goods on delays, leading to compensation of owners for losses.

The carriers and other players told the 2017 flower logistics conference that too

losses subject to the agreement a carrier has with the cargo owner. "For us we take responsibility based on contractual obligation with our clients. Delays on approvals is a very expensive affair to the airlines," said Mr Musula.

However, KEPHIS said there were no shortcuts over regulatory approvals and wants airlines and their clients to always plan to avoid delays. "Documentation is a must. Cargo airlines cannot avoid this because we are required to inspect the

KEPHIS said on average it takes about two hours for a consignment to be inspected and approved. She, however, said KEPHIS is investing in ICT to cut down on paperwork and increase efficiency in clearance. Kenya has previously suffered huge losses on its produce in Europe after the continent banned some of it due to high levels of chemical residues in the food items.

Kenya is currently contributing over 35 per cent to the global flower trade and the



much paper work by the plants inspector is creating a bottleneck along the value chain. "Regulatory approvals are proving to be a challenge to us because of too much paper work and requirement involved in the process of clearance," said stakeholders.

Kenya Airways cargo manager Peter Musula said the airlines absorb the

consignment right from the farms to the airport," said KEPHIS managing director Esther Kimani.

Ms Kimani said the airlines need phytosanitary (hygiene check) certificate before any of the agricultural produce is approved for export, hence the laborious documentation.

market share continues to grow despite stiff competition from Ecuador, Ethiopia and Colombia.

Last year, the industry brought home Sh71 billion, making up 70 per cent of the total earnings from horticultural exports. The industry also accounts for 17 per cent of the country's GDP.

# Cartons

## Counting the Cost

**Q :** For export, Flowers must be packed. Kindly discuss the importance of quality cartons in packaging of flowers?

**A:** The quality of a carton is important as it determines the state in which the produce will reach the market. A good quality box should be able to withstand the harsh conditions in the supply (cool) chain. The primary purpose of a carton is to protect, preserve and ship the produce to the market in top quality sustainably- in as near perfect condition as possible-allowing for good returns.

It is pointless to put so much effort in getting a quality produce from the farm only for it to arrive in bad state in the target market due to poor quality packaging- fetching low returns and being subject of claims etc.

**Q:** For a layman, a carton is a carton; briefly discuss factors to consider when choosing the best carton for flowers?

**A:** A box is a box to a layman however you could have two boxes constructed of the same quality material (paper from same sources) but the resulting box could be very different in terms of capability- or ability to perform in the hostile conditions that it is subjected to.

A good quality carton depends on quality of paper used and the integrity of the process and processing equipment.

Influencing factors in choice of box are;

1. Type of flowers grown and sensitivity
2. Pack rates
3. Cost

4. Logistics- mode of transport, pallets in use in the supply chain.
5. Volume to cost ratio considerations-
6. Weight of box.
7. Target Market and also the preference in the growing region
8. The nature of the growers' cool chain and handling
9. Choice of supplier- a supplier who sustains consistent quality of boxes batch-to-batch, reliability of supplies.

**Q:** Flowers are of different sizes, varieties and types each with it's unique characteristics, do you use the same cartons for the different stem sizes, head sizes, varieties and types e.g roses, lisianthus etc?

**A:** Cartons come in different sizes and styles. This largely depends on grower preferences but there are special rules for special flowers. For example roses, etc will be packed in either standard, Zim Box, Special Zim, Jumbo box whereas Lisianthus will be packed in an upright whose height will depend on the stem size. Chrysanthemums for this region are packed in smaller sized boxes

**Q:** What is the universal carton size(s), if not classified you can give the different carton sizes available>

**A:** In this region, Eastern Africa, the most common flower boxes are the Standard flower box whose size is 978 x 299 x 196mm and Zim Box whose size is 980 x 438 x 199mm. These are two piece-

products that is bottom and top (that are Full Depth Telescopic). There are other variants in the FDT boxes such as the Special Zim whose size is 982 x 375 x 209mm, Jumbo box which can take various sizes depending on the grower.

In addition to this we have the coffin (Popular in Israel but also used here by a few), an R.S.C style , box whose size is 1000 x 512 x 388mm and uses heavy duty paper ideal for heavy haulage- there's a variant to this which uses a slightly lower grammage paper.

We also have some other small boxes like for chrysanthemums and one size is 530 x 345 x 100mm.

### Quality is never an accident; it is always the result of high intention, sincere effort and skilful execution.

**Floriculture:** How many stems or bouquets should be packed in a carton?

**A** This is dependent on various factors. These are; size of stems, heads, variety, grower, their overseas customer requirements, type of box etc. The packing should be such there's no bulging or over packing so as to facilitate good stack formation and ease of handling.

**Q:** Kindly discuss the handling of the product during packaging to maintain the quality.

**A** It is important to understand that boxes are paper products and although paper for making boxes is specialized, prolonged contact with moisture/water contribute to deterioration in strength. This calls for extra care in handling.

To ensure flowers arrive their destination in top quality, handling of the boxes throughout the cool chain is important. It largely depends on how the cooling/pre-cooling process of the grower is structured- the longer the box is subjected to the cool chain the faster it deteriorates how the boxes are stacked in the cold rooms, during transportation; the process of handling during loading, unloading and building of pallets, storage of boxes. Have the packers been trained on good handling practices, do the packers know how to identify faulty boxes and avoiding to use them? These are all important.

**Q: What advice do you give to enable the product maintain its quality during transport both road and air?**

**A:** Adhere to good handling, stacking and packing on trucks utilizing the edge of the boxes where the strength of the box is. At the freight handlers it is important to adhere to good practice and also simple mechanization to enable easy movement of large pallets without having to use a lot of force on boxes. Use of refrigerated trucks should be well structured.

**Q: What problems if any are you having with growers in handling of your products which they turn to blame on you?**

**A:** When there are issues of boxes collapsing, the box maker gets all the criticism, what the growers need to understand is that things could go wrong anywhere in the chain. It could be as a result of;

1. Poor quality box- Supplier issue
2. The structure of the growers pre-cooling process
3. Growers packing process and the environment in which it is done.
4. Structure of the road transportation and packing in the refrigerated lorry
5. Handling and palleting at the freighters
6. Conditions under which the produce were being handled during loading,



unloading etc

**Q: Are there any specific materials which should be used to manufacture flower cartons for your customers?**

**A:** The ideal situation would be to have wet strength paper, semi chemical fluting paper as the components to manufacture flower boxes with. These would allow for use of lighter boxes. However these are expensive and normal kraft paper and waste based fluting are the norm. The kraft paper/fluting has to meet certain stringent strength and water absorption criteria without which there is likely hood of issues during use. There are other methods/processes available to impart water resistant properties to paper and starch which is used as adhesive. These are through use of water resistant coatings on paper and water resistant resins in glue formulation.

**Q: What are the qualities of a good carton**

**supplier?**

**A:** Consistent quality products batch-to-batch, excellent customer service that includes training sessions with Packhouse team on box handling and reliability in supplies.

**Q: Kindly give your final comments?**

**A:** Quality is never an accident; it is always the result of high intention, sincere effort and skilful execution. The grower, packaging supplier and freighter should work closely together in ensuring that the produce reaches market in the best possible quality.

A number of Suppliers in Kenya already do this by engaging growers Packhouse teams on box handling and has studied different cool chains for different growers and understands which of these work well considering the type of boxes made in this market.

# From Farm to Vase

## Building Sustainable Cut Flower Supply Chain

**T**he share of the rejected stems in the Kenyan supply chain from farm to the market with the current packaging is roughly 20% on average. A more standardized box will help us save on this. However growers could not well agree on what should be the first step in piloting a new box. While most agreed that the cost of the box would be the main consideration, others felt processes and handling procedures in the supply chain should dictate the standard box. Floriculture Magazine spoke to some of the industry stakeholders. Below are the excerpts:

Statistics available reveal that Kenya is losing millions in Cool Chain Management (Pack house, refrigerated Lorries' road transport, cargo handling at the airport and cargo plane of flowers). Most of these losses are occasioned by the type of boxes used in the cool chain management and how they are handled. This makes our flowers less competitive in the market. Carton manufacturers must invest a lot to provide solution for these losses in addition to ensuring that there is no compromise on quality as well as training growers on cool chain and carton handling.

### Growers Involvement

The second edition of Flower Logistics Africa 2017 had a full house representing a cross-section of the entire value chain of flower trade. The discussions revolved around the need for standardisation that will enhance exports and gain traction for Kenya's flower industry in the global market. Jane Ngige, chief executive officer of Kenya Flower Council (KFC) who was part of a panel discussion, emphasised the need for a single box standard for the flower industry. "Now growers follow different standards that are set over the period, by the box manufacturers and for uniformity, there is need to consult the

growers on the right specifications and come up with a standard box," she said.

Speaking during the conference, one of the leading box manufacturers in the country Mr. Parit Shah of Silpack Industries Ltd said the driving concern should be the desire to give growers the best quality boxes. Adding, "naturally growers have become part and work alongside their box manufacturer. Growers have the authority over product innovation and planning, production scheduling and delivery of the box. They point out every single thing that must be improved. Growers also arrange training of their pack house staff and the nature of their training".

Mr. Parit pointed out that technology

and innovation are the backbone of most of box manufacturing processes. It is in this respect that the technical teams and the pack house staff remain major contributors in any achievement. They actively participate in coming up with the operational procedures and are instrumental in evaluations. Growers, who have become part of the action team, also spearhead programs for minimising the damages because they have an idea on how flowers are packed and transported.

Leading box manufacturers have also joined hand with other stakeholders and invested a lot on cool chain training and handling of boxes. The training is tailored to ensure growers product have none or minimal bruises before reaching the customer. In





addition, it also ensures minimal friction if any during transport.

“A bruised product or neck bend product will be less competitive and fetch less than the market price”, says Elizabeth Kimani, General Manager Sian Roses. Growers need to understand inserting of SFKs and handling of the flower box before and after packaging. In addition, the company trains on storage of the boxes.

## Customer Service

Box manufactures do not leave growers with any packaging hassles but time concentrate on their core activities. As a packaging solutions provider; they do not just offering a box. Their approach is different. “We challenge, innovate and inspire our customers. Our consultative approach is in finding alternative solutions to packaging needs. We add value by showing how costs can be driven down while still retaining a competitive edge”, Says Ms. Lucy Kinyanjui of EAPI.

One of the challenges facing carton Manufactures is the movement of goods from the factory to the customer’s premises and or delivery points. This can be attributed to poor infrastructure and never-ending traffic jams. Cartons are transported to customers in two ways. Some customers, mainly from the flower sector prefer collection on return after delivery of flowers at JKIA. Box manufacturers also offer delivery services to their customers.

## Company Investments

Box manufactures in Kenya are currently shifting to a new technology state –of-the-art machines and corrugators. The corrugators are capable of producing very low grammage single wall boards to heavy duty double wall boards. Another benefit is its ability to do coating of the boards which helps in improving of water resistance. The conversion die-cutting machines have a capability of both flat bed and rotary die-cutting and can print up to six colours. The folder Gluer is capable of printing up to full colours and together

with stitchers meets all the regular slotted cartons (RSC) requirements of our customers.

## Light weight box concept

“The future of boxes is in ensuring that our customers save on freight and quality” says Mr Parit Shah of Silpack Industries Ltd. Adding, “Innovation is the key to production as well as processing of knowledge”.

Armed with this, two of the box manufactures have introduced a box that will save the customer millions of shillings paid in freight. The light weight concept is a complete reversal from the conventional heavy waste-based fluting board. The box which is lighter will fetch lower freight cost and save money for the grower. Numerous researches through leading growers in Kenya have shown that growers will save almost 20% of their current freight cost.

Additionally, the light box drop lightly compared to the heavy box hence minimal impact compared to the heavy. This will translate to strength retention in the cool chain. The lighter box is done with a specialised fluting paper called semi-chemical fluting, which enables it to perform better in the cool chain and increase its residual strength. Box deterioration is also better hence impact of the packed product reduced.

## Manufacturing Challenges

“There are high costs of operations in Kenya which cannot be ignored such as electricity, finance, communications, infrastructure and custom duties when importing through the port, all these makes it clear why local packaging suppliers cannot produce and sale at internationally competitive rates”, Says Nick. Paper prices



are such that they constitute over 60% of the cost of the manufactured carton, so there is little scope for great flexibility on selling prices. To be globally competitive, the government should cushion some of these expenditures.

Manufactures are also engaging with growers to try and standardize the cartons. Looking at the standard box today, it has many different concepts on die cuts. While all agree that the role of a die cut is ventilation, there is no agreement on the shape and the number of die cuts. Some growers prefer three while others go for two. The shapes range from rectangle, to circle or semi-circle. Standardizing them will cut more cost to the growers.

Growers who are mostly driven by the costs should accept the responsibility and lead the path on the innovation and development of a standard box. They should advice on the right specifications and release themselves from the mercies of the flower consumers and unnecessary dictatorship from the market. This has led to every supply chain pushing their own boxes which makes manufacturing for the different types very expensive. Colombia who is the main competitors has a standard box and the market has accepted it.

## Market

# Changes in consumer behaviour

Consumer behaviour is always changing. Sometimes buyers want a good quality plant or bunch of flowers for a low price. At other times they want something very special and purchase price is not an issue. Millennials are driving further growth in online sales. Babyboomers are set to retire and are expected to increase their expenditure on flowers and plants. In the next decade, Rabobank is expecting a 2% growth per year in cut flower and potted plant expenditures in Europe and North America, with Asia growing 6-8% annually. Rabobank expects the growing demand in Asia to be mainly fulfilled by products grown in Asia.

### Hybrid consumer

Nowadays, the cut flowers and plants consumer is unpredictable. One moment they want a very luxurious bouquet or exclusive plant, the next moment they buy a low-priced bunch of flowers at a discounter or big box retailer. They want different products at different times. We call this the 'hybrid consumer'. This requires industry players to adapt their products and services to several consumer purchasing moments.

### Millennials on the market

A buyer's age plays an important role in floriculture. Millennials are likely to buy more flowers and plants. They are familiar with buying online, using payment-apps and seem less loyal to specific retailers. Consumers in the UK bought 14% of their flowers on internet in 2015! Responding to the needs of this generation is an important opportunity, because millennials also have purchasing power. They want easy-to-use products (packaging, post-harvest treatment), are sensitive to positive characteristics (air purification, working-climate, decoration), want freedom of

choice (seasonal flowers, composition of the bouquet), and are familiar with new technologies (ordering, payment, maintenance).

### Online purchasing up

Rabobank expects online purchases to account for 30% of all flower and plant purchases in 2027. In 2015, the market share of online purchases in major European markets varied between 3% (in Germany) to 14% (in the UK).

Today, women account for almost 80% of the purchases at supermarkets, florists,

of current buyers of flowers and plants.

Babyboomers will retire soon and enter a new phase of their life. Their new lifestyle (more time at home, in the garden, or on the balcony) will bring new opportunities for floriculture. In the next ten years, the number of people above 60 in Germany, France, and the UK, will rise by 10 million. Market opportunities will increase by anticipating the baby boomers' needs. There are plenty of opportunities for increasing expenditure from them because they will have more attention for their direct environment (living room, balcony, garden) and service provision will increase).



or garden centres. This is quite different online. GMI market research in Germany, for example showed that, in 2016, men accounted for 73% of online purchases of cut flowers and potted plants, women for 27%. Canadian market research showed that 31% of male millennials are buying at least a part of their flowers and plants on the internet.

### Babyboomers still in the market

Millennials are the new buyers but it remains relevant to keep serving the needs

### Urbanisation = greening

According to the UN, the global population will grow to 9.7 billion people in 2050.

Most of these extra people will live in large metropolitan areas.

Going green in these future metropolitan areas is not a luxury, but a necessity—think of healthcare and wellbeing for citizens, temperature regulation, sewage disposal, and biodiversity in cities. City planners, architects, and policy makers feel this urgency.



Expected development of consumption value of flowers and potted plants 2017-2027. Source: OECD, RFH, AIPH, Rabobank 2017

Plans are therefore being made for green walls, urban jungles, and new parks at large-scale urban renewal projects in Asia and the US. This is going to provide opportunities for a whole range of (new) products.

It seems Europe is lagging behind a little in this regard, maybe because the European standstill in population growth is leading to less urbanisation than elsewhere. Urbanisation is a major opportunity for floriculture. We are especially convinced of the good opportunities for perennials, garden plants, and green potted plants. The trend is also relevant for flowering potted plants; but less important for cut flowers.

Economic growth: Higher demand for flowers and plants  
In the next decade, consumption value in

Asia is due to grow by 80%, based on the assumption of continuing economic growth and a strong relation between purchasing power and floriculture expenditures. For Europe and North-America, we are expecting growth in consumption value of 20% in the same period. This means consumption values in 2027 for Asia and Europe will be equal (USD 37 billion).

Production does not always equal market demand. At times of market disturbance, and for some specific species, there are opportunities for the current leading flower-exporting countries (Colombia, Ecuador, Ethiopia, Kenya, the Netherlands).

Rabobank expects Asian demand to be mainly fulfilled by flowers and plants from Asia. International transport to end users is not a sustainable business model, because

of growing concerns about the CO2 footprint. Therefore, we expect growing consumer expenditures on products from the own continent.

Follow-up for companies  
Floriculture has to put a lot of effort into responding to the changing behaviours when it comes to purchasing flowers and plants. Entrepreneurs have to be aware of these changes. Companies should choose to focus on economies-of-scale, high efficiency, big volumes and small margins or a choose the niches, specialities, exclusivity, lower volumes, high perception value, service, variation, and higher margins. Which choice a company makes does not actually matter too much. But making no choice at all is the most risky.

Source: Rabobank (Lambert van Horen)



# Market

## Ethiopian Growers Target US Market

By Carolina Millan and Nizar Manek

- National carrier may fly flowers through Miami, L.A. or NYC
- New air-services deal would open way for export push

Ethiopia's burgeoning flower-growing industry is setting its sights on the U.S. in a bid to break the dominance of Latin American producers in supplying roses and other blooms to the world's largest economy.

State-owned Ethiopian Airlines Enterprise is evaluating freighter flights through Miami -- the main entry point for U.S. flower imports -- Los Angeles or New York, regional manager Girum Abebe said in an interview. The company currently transports stems there only in the bellies of passenger jets.

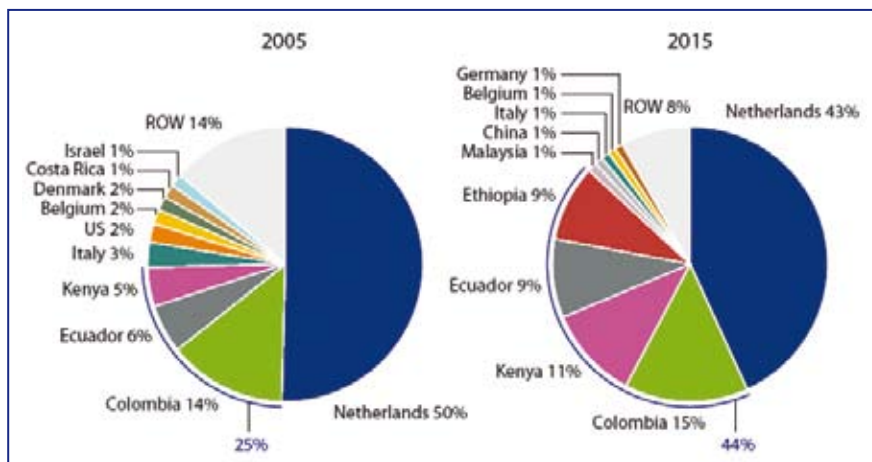
Ethiopia has become a major force in global floriculture in the past two decades, exploiting a tropical high-altitude climate that provides year-round natural light combined with hot days and cold nights perfect for bringing plants into bloom.

"Ten or 15 years ago Ethiopia was not exporting a single rose, but now we have earned our position in the world market," Girum said. "North America has been the major importer of horticulture products from other parts of the world, so we want to have part of that."

Ethiopian flower exports are currently focused on Europe, and have made the country Africa's second-biggest producer after Kenya and fourth-equal worldwide, according to Rabobank research based on 2015 figures. About 80 percent of Ethiopian production is flown to the Netherlands, the center of the global flower trade, and re-exported from there.

'Bigger Blooms'

"Most people don't know it but the



The world's largest cut-stems exporters

Source: Rabobank, UN-Comtrade, Royal FloraHolland, 2015 data

flower market is very much a global one," Amsterdam-based Rabobank floriculture analyst Cindy van Rijswick said. "Ethiopia is doing so well because its labor costs are a bit cheaper than Kenya and if anything its climate is even better, producing bigger blooms."

European flower sales have been flat in recent years, encouraging growers to look at opportunities for penetrating trans-Atlantic markets, she said.

The expansion of North American flights will require a revision of existing air-service treaties between Ethiopia and the U.S. and Canada, said Girum, who spoke in Buenos Aires and oversees his company's Latin American business. The African Growth and Opportunity Act, aimed at fostering U.S. trade with the sub-Saharan region, has helped encourage flower exports on a limited basis and was extended for 10 years in 2015.

Land Grant

Ethiopia aims to boost foreign-exchange earnings from flowers and other plants to more than \$1 billion a year from \$280 million now, according to EHPEA

Airline

Ethiopian Airlines, Africa's largest carrier, handles 90 percent of horticultural exports via Addis Ababa's Bole International airport, where a new 150,000-square-meter cargo hub has capacity for 1 million metric tons of sensitive produce annually, including fresh flowers. The airline has a fleet of six Boeing Co. 777F freighters and last month ordered four more at the Dubai Air Show worth \$1.3 billion at list prices.

A new passenger route to Buenos Aires will operate five times weekly starting March 8, with aircraft flying via Sao Paulo. Ethiopian will then evaluate whether the Argentinian city might support direct flights, Girum said.

Source: Bloomberg

# UN Action Set to Revive Lake Naivasha

The Naivasha wetlands, nestled amidst the volcanic mountains of Kenya's Great Rift Valley, are dying a slow death. Concerned at the impending ecological crisis, United Nations Environment stepped in to initiate a five-year Freshwater Strategy, part of its global action plan, to protect Lake Naivasha from certain extinction.

Roughly half of the country's 127 flower farms are concentrated around Lake Naivasha.

UN Environment Freshwater Unit Head Joakim Harlin told IANS that tackling water pollution and quality and the health of freshwater ecosystems owing to urbanisation are two of the cornerstones of UN Environment's global Freshwater Strategy 2017-2021.

He said the new initiative aims to address water-related disasters and the use of integrated science-based water resources management approaches to protect, manage and restore freshwater resources.

The Freshwater Strategy, by involving governments and local partners at national, regional and global levels, provides actionable guidance to support implementation of sustainable freshwater management practices globally.

Lake Naivasha supports a mammoth population of hippos, is the wintering ground of myriad avian species and sometimes also supports a small population of flamingos. It is a major tourism destination.

Besides, the lake is the only source of water for this town, some 90 km northwest of capital Nairobi.

Experts attribute the shrinkage and water deterioration of Kenya's second-largest freshwater lake to pollution from pesticides, fertiliser and sewage effluents, water abstraction for floriculture, overgrowth of weeds, siltation and the mushrooming of resorts that are pushing this Ramsar-designated site towards certain death.

Imarisha Lake Naivasha Catchment Management Programme Chief Executive Officer Kamau Mbogo blamed the growing population in urban slums that are ringed around the lake for its water deterioration and shrinkage.

"The lake is now turning fast into a dump for domestic and agricultural wastes generated from business, tourism and housing within its catchment area. The deterioration started in the late 1980s. Now it's shrinking fast and its deepest point has reduced to 18 metres (off Crescent Island)," he told this

visiting IANS correspondent.

He said pollution from fertilisers and pesticides in the run-off from fields is boosting the growth of algae, which is suffocating the fish.

Over 700,000

people live in the lake's approximately 3,400 sq km catchment area that is semi-arid with an average annual rainfall of 1,350 mm in the mountains and 600 mm on the lake's shores.

Lake Naivasha, which almost dried up in 2010 owing to scarce rains, provides water for irrigation that supports one of the biggest floriculture hubs in Kenya that caters mainly to the European Union.

Kenya is the world's third-largest exporter of cut flowers, accounting for around 35 per cent of all sales in the European Union.

Experts say the receding water level and rising water toxicity are posing a serious challenge to the cut-flower industry that employs tens of thousands of people.

Fishermen too expressed concern over a possible extinction of the tilapia fish species due to pollution.

"Earlier we used to catch three to four tilapias in a day. Now there is hardly any catch, even for days. I don't know where our fish have gone," a perturbed fisherman, Paul Okello, remarked.

Growers in the region have adopted sustainable farming methods to check the lake's deterioration.

A number of farms have also created a biogas system that uses waste biomass, rejected flowers and other agricultural produce to generate enough clean energy to power their farms and light up numerous homes

It is able to produce so much energy from waste that it sells electricity to the national grid. The system also generates enough organic compost for the entire farm.

Courtesy: Daijiworld.com





# Total chain concept

All Chrysal products have been especially developed to meet the specific needs of cut flowers and plants at every stage of the chain.

Using the right flower and plant care products at every stage of the chain ensures minimal loss in flower and plant quality and waste. To this end, Chrysal distinguishes three user groups throughout this chain and seeks to cater for their specific needs. The result: more efficient and increased profit and improved customer satisfaction. Chrysal Africa offers products and services suitable to each stage of the chain.

## Grower

Products: Chrysal post-harvest treatments, CVBN, SVB, Inicial, AVB, AVB Booster, BVB, LeafShine & Seal, Dip & Wash.

Effects: Protects flowers against physiological disorders and simulates water uptake.

Services: Audits, 'Chrysal Code of Practice', PHT Training and technical consulting.

## Wholesaler / Bouquet maker

Products: Chrysal Professional line, RVB Clear, Arrive Alive, FreshLiner.

Effects: Chrysal's products keep the flowers in optimum condition and can be used for transportation or display of flowers.

Services: POS materials, audits, 'Chrysal Code of Practice' and consulting support on eg. automation, waste and cost management process.



## Consumer

Products: Chrysal cut flower food, in powder and liquid formulations.

Effects: Chrysal cut flower food provides nutritional supplements to the flower for optimum bloom and long and enjoyable vase life for the consumer.

Services: Private label flower food, FAQ and care information.



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# Great Innovation from Silpack Industries Ltd.

Performance in hours in cold chain

Type	Material	Typical GSM	Typical Destinaton	12 hours	3 Days	5 Days
Brown	Recycled	125	Auction	6	3	1
Brown	Kraft	125	Auction/Direct	7	4	2
Brown	Kraft	150	Direct	8	5	3
Brown	Kraft	175	Direct	9	7	5
White	Recycled	125	Direct	6	3	1
White	Kraft	125	Direct	7	4	2
White	Kraft	175	Direct	9	7	5
White	Coated Kraft	175	Direct	10	8	7
White	Bunches White	175	Direct	10	9	8

## Performance - 10 High to 1 Poor

Addressing the challenges of using the right SFK during packaging and transit of flowers, would improve the quality and shelf life of flowers. SFK plays a crucial role in maintaining the quality flowers, but to get the maximum benefit, it must be the right quality and well used.

Silpack Industries Ltd, a national brand known all over the flower the flower growing areas for its innovative, durable, reliable and efficient packaging products and services has introduced yet another first in its SFK line. The super white SFK now undergoing trials with a number of growers may be the answer to numerous challenges faced by growers exporting to the direct market. The white Kraft made of 175gsm can withstand 10 hrs within the first 12 hrs, 9 hrs in 3 days and 7 hrs in 5 days. This is a characteristic which no other SFK can provide.

As per Parit Shah, director, Silpack Industries Ltd more than packaging, the right SFK plays the crucial role in retaining the freshness and shelf life of flowers. "What we see in recent years is heavier boxes. This mostly is not in

favour of cost efficiency during the flight. The flowers packed in these boxes will be charged more due to the weight. This is one of the reasons we are looking at this subject."

So, why are the boxes heavier? The answer is simple, use of more packaging materials which you can easily avoid. Is it a must for growers to use dividers and layer pads? Or maybe we can ask, why growers use dividers and layer pads? Most of the post harvest manager will tell you it is to maintain flower freshness, quality and shelf life. So, is there any other way to maintain the same quality and shelf life without heavy cartons? Yes! the answer is Super White SFK from Silpack Industries Ltd.

That is not all, Growers will tell you their main drivers when choosing an SFK are price, flower protection, branding opportunity, customer requirements and benchmarking against normal industry trends particularly South America. This innovation is practically the solution and that is why it is christened Super White. Though the cost price is slightly higher, growers will always save on freight cost because no need of dividers or layer pads hence a lighter box.

The curiosity that any grower will have is, it has the same grammage with the white kraft, why is it different? The Super white is manufactured using a completely different fibre which has better moisture absorption rate and is more firm. This makes it better in longer cool chain especially direct market.

Keeping pace with the demand growth in flowers especially during valentine, most growers tend to be careless and blame the packaging solution provider. Mr Parit cautions that, growers must use the right SFK size (Width and Flute). Secondly, growers must use the right staples and stapler and use the right rubber bands. This will maintain the flower structure and its quality for better prices.

As Parit, puts it, "growers need to start having a meaningful discussion with their packaging solutions providers. Many still have a reactive approach. Growers and ground handlers, in fact all parties including shipping agents, need to be more proactive and should be discussing the future requirements and necessary investments in order to move the business forward."





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- ❏ **Quality Assured**
- ❏ **Savings on Freight**
- ❏ **Reduce Loss of Produce**



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# Valentine Day

## Don't Mess with your Customers



**E**very Valentine's Day, consumers head into stores to purchase flowers at a volume that is far higher than any other day of the year.

And, because they want to give their loved ones the freshest blooms possible, many Valentine's Day floral purchases are made the day of—which means hundreds of stores around the world need to be prepared to have enough flowers on hand to meet their demand.

Florals need to maintain specific temperatures to preserve freshness and their Valentine-

ready appearance. It takes precise timing, detailed cold chain management, and skill to get flowers from field to store shelf in time for the holiday. Here's a look at the process involved.

#### Is Your Fresh Supply Chain Ready for the Holiday Surge?

The holiday season is a time for traditions—especially when it comes to the flower sector which are produced and exported globally. And with produce being a key ingredient in many of those treasured and favorite ones, you might say that the supply chain is an important part of the holiday season.

Transporting delicate, temperature sensitive produce adds an additional degree of complexity to the supply chain. And when the winter holiday season hits, there are even more considerations to keep in mind. After all, consumers expect their favorite retailers to have the produce they need to complete the joy and enjoy the period they look forward to all year.

#### What can threaten the holiday surge?

At several points throughout the year, spikes in demand can threaten fresh supply chains. Often, consumers will substitute the affected items with other produce that is readily available. But during valentine surge, consumers want very specific items for their holiday and swapping items simply won't do.

Potential cold and humid weather issues in growing regions and along the entire route—from farm to vase—can also impact supply chains during the busy holiday season. Cold weather and their aftermaths can quickly stop the supply chain, causing delays or out of stock situations.

#### Keeping your supply chain moving during holiday surges

To properly plan for all of the added risks and pressures the holidays can put on a fresh supply chain, work with

a logistics provider that has the supply chain management experience, flexibility, relationships, and multi-pronged solutions in place to respond to challenges.

The likelihood of something going wrong in the fresh supply chain during the holidays is much higher than other times of the year. It can be hard to predict exactly what will go wrong—or when it'll happen—but working with a third party logistics provider (3PL) that's agile, armed with backup plans, and solution-oriented can make all the difference in keeping your fresh produce moving.

No one wants to be the reason consumers can't enjoy their favorite roses this valentine.

#### Three Questions to Ask Your Global Logistics Provider

Today, your supply chain is probably global—whether. But how well positioned is your global logistics provider to help you maximize your business opportunities? How do you know they're the best ones to handle your business requirements? I'd recommend you ask potential providers these questions to narrow the field. The answers can reveal how qualified those providers are to help you surmount challenges and realize the outcomes you're looking for around the world.

Where do you rank in major trade lanes around the world?

This answer will reveal key facts about the provider's global logistics expertise in your key markets. First, how global are they? What services do they offer, and where do they offer them? What volume of freight do they handle?

Global markets are dynamic. Be sure the provider you choose is deeply involved in the business environments you serve, and that they can help you adapt your plan to fit the changing realities. Expect them to

talk about the modes of transportation they offer. If they offer both ocean and air, you will have more options to adapt to your customers' needs. A versatile, non-asset based forwarder that can optimize your supply chain, offer a variety of service options, and provide freight consolidation can add efficiencies that can also save you money. Finally, their ranking tells you whether they have high enough volumes in the major trade lanes where your freight moves to negotiate competitive rates for you.

Where are your offices located, and which of them are in my strategic markets?

In addition to global expertise, make sure your provider has local logistics knowledge. Business environments are different all over the world. For any company moving products, variations in taxation, culture, currencies, and regulations will have important impacts for your overall business.

Expect your global forwarding provider to be proficient in the local language, culture, and the nuances of local trade. To avoid missteps that can cost you in money or goodwill, the best possible scenario is for the provider to have a local office in your key markets. They will be your eyes and ears to help ensure you obtain a smooth supply of goods everywhere.

Do you have global technology that will integrate with our business systems?

Think about technology as if it is an ecosystem, with your company at its center. Can their technology connect you to your customers? Your carriers and suppliers? Does it have the capability to handle global currencies and work across the key regions where you do business?

Don't settle for less than global technology that includes all types of global transportation. Do obtain references of customers who use it in your key markets. Each of these questions are top of mind.



# Insects and Mites: Early Detection is Key

In any case, it is important to be able to recognize the damage that results from the feeding of particular insects so that management strategies can be applied before the damage becomes extensive, or preventative steps can be taken.

**S**couting and Early Detection  
Early detection is one key to successful insect management on cut flowers. Insecticide treatments are rarely 100% effective. Regular and careful observation of the plants will help detect pest problems as they are just beginning. In greenhouses and high tunnels, yellow sticky traps may serve as a useful tool for whitefly, thrips and fungus gnats and outdoors for detecting migrating leafhoppers. Place traps among the flower crops checking them weekly to determine what pests may be present and as an indicator for the effectiveness of treatments. Plant foliage may be tapped over a white sheet of paper to look for mites and thrips. A sweep-net can be used to capture plant bugs and leafhoppers.

## Insect Management

The best approach to both disease and insect management begins with good sanitation and soil management. Keep the field free of weeds and plant debris. Adjust soil fertility and pH based on soil tests and space plants to allow sufficient air circulation within plantings.

When using a pesticide, good spray coverage is important. Unfortunately, not all of the material you apply actually reaches the target insect. Therefore, even small changes in spray distribution and delivery can have a large impact on success or failure.

Many insects look similar but are very different in their biology, habits and controls. A wrong identification can result in choosing the wrong pesticide or management strategy and obtaining poor control. Things like pesticide selection and placement, cultural practices, and frequency of treatment all hinge on proper identification.

Most damaging pests are apt to attack a wide variety of plant types while a few are specific to a limited number of hosts. In any case, it is important to be able to recognize the damage that results from the feeding of particular insects so that management strategies can be applied before the damage becomes extensive, or preventative steps can be taken.

## Insects Causing Damage by Chewing

Pests with chewing mouthparts feed on all parts of the plant. These pests tear or cut, then chew and swallow bits of tissue leaving a ragged leaf or flower margin in the process. The tissue is removed mostly from the outer margin inward. In severe cases, most of the leaf may be eaten, in other cases, the insect may not be able to chew completely through the leaf surface and the result is a lacy appearance to the damaged leaf. Some chewing pests prefer only the tender interveinal tissue; a skeleton of veins is all that is left after attack. Since chewing pests feed on large quantities of leaf or flower tissue, apply an appropriate

pesticide on the leaf or flower surface so that the insect will ingest sufficient residue to be killed. The following is a description of some common chewing insects that are known to cause damage to cut flower crops.

## Caterpillars.

Several species of moths and butterflies are pests of cut flowers. One of the most important is the variegated cutworm. Larvae hatch from eggs layed in the spring and generally feed after dark. Plants may be cut off at or near the ground overnight. Some species of cutworms also climb and feed on the foliage. A single cutworm can kill several plants in a night. Newly planted annual flowers are most vulnerable. Other damaging caterpillars include beet armyworms which may bore into flower buds and defoliate plants.

## Insects Causing Damage by Piercing-rasping

Perhaps most damaging although not as apparent, are insects and insect-relatives that pierce plant juices. Thrips, aphids and mites are the most common.

Insects with piercing-rasping mouthparts do not chew plant tissue. They pierce the leaf, flower, roots or stem with sharp, needle-like structures. Once these structures are inserted into plant tissue, the insect pumps liquid such as sap into its stomach. At the same time a salivary liquid is pumped into the plant to facilitate food withdrawal. In some cases the saliva may cause a toxic reaction in the plant. This process of feeding also accounts for the fact that insects with piercing-rasping mouthparts can transmit viruses and mycoplasma-like organisms to healthy plants.

To page 28



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## Viricide



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- An excellent IPM program compliance product
  - KOBE 1.2 SL is 100% biodegradable.

- Observed to be safe to *Phytoseiulus persimilis*, honey bees, livestock and the environment.

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Fulfilig the needs of the Future

From page 26

Damage caused by piercing-rasping insect may show up as small specks or chlorotic spots where the plant or flower was punctured. Others cause twisted, curled or deformed plant or flower growth, largely because of the introduction of the toxic saliva. Still others cause general wilting which may eventually lead to plant death. Occasionally, leaves may have holes as a result of damaged tissue that has dried, become brittle and fallen from the leaf.

Because these pests do not consume any of the plant surface, stomach poisons on the surfaces of plants don't work very well. In this case a systemic pesticide, one that enters the plant system so the insect picks up the pesticide as it feeds or a contact insecticide may work best. Insecticidal soaps have contact activity but must be come in contact with the pest because they have no residual activity.

Some insects are capable of transmitting diseases from infected to uninfected plants. The most important ones here are aphids.

Thrips

Thrips is a common pest on outdoor cut flowers and this pest has rasping-sucking mouthparts. This describes feeding with both piercing-sucking and chewing mouthparts. Thrips puncture the tissue, then sucks the sap and fluid that is released from the injured tissue.

Thrips are very tiny, (about the size and shape of a grass seed), cream to dark colored insects that prefer to feed in opening leaf and flower buds. Some species will feed on leaf tissue where they produce silvery depressed areas that frequently contain black specks. Thrips will attack many cut flowers. Feeding damage appears as a dull discoloration. Flowers can be streaked, mottled or flecked with off-color areas. In some cases new growth may become misshapen and deformed, or buds may fail to open. Thrips also transmit impatiens necrotic spot virus (INSV), a

serious disease in the greenhouse industry. The potential exists for INSV to cause problems in cut flower production also. Insects with rasping-sucking mouthparts make them vulnerable to insecticides with systemic and contact activity. Since thrips prefer to feed in tight, protected places such as expanding flower buds, multiple applications of insecticides are often necessary for adequate management.

Aphids

Aphids can occur in large numbers very quickly. Most aphids are about 1/16-1/8 inch long, rounded or almond shaped with two "tailpipes" cornicles at the rear of the abdomen. Apart from the damage they inflict directly by removing plant juices, they also are effective vectors of many virus diseases. Plants can generally cope with small numbers of aphids. However, during high temperautre, aphids have the capacity to multiply rapidly and cause extensive damage.

Mites

Two spotted spider mite, cyclamen mites and broad mites are three mite species that can cause problems in cut flowers. Two spotted mites are most active on the underside of the leaves, their presence being apparent by the fine stippling caused by their feeding and seen on the upper surface of the leaves. Fine webbing is produced by the mites. Leaves turn yellow or bronze, and many drop.

Mites are invisible to the naked eye but cause a great deal of damage. Mite feeding causes the leaves to curl, twist, and become brittle and scabby. Flower buds may dry up and die. Light infestations may result in discolored or dark-flecked flowers. Flower spikes are stunted and blackened. Mites are most active during high temperatures.

Whiteflies

The greenhouse whitefly and sweet potato whitefly can be important pests. Generally, these insects confine their activity to the

warmth of the greenhouse. However when outdoor temperatures become favorable, they leave the greenhouse to infest suitable hosts outdoors.

Mining Insects

Leafminers. The larvae of this group feed within the leaves of plants. Females deposit eggs on the underside of leaves. On hatching, the maggots burrow between the upper and lower leaf surfaces and feed. Many leaves may have light green or white winding trails that eventually turn brown and die. The mature larva emerges through a slit in the leaf surface and enters a resting stage where it passes as a pupa in the soil. There are many species and lifecycles may vary a bit.

One method of controlling these pests is to pick off and destroy infested leaves and, in the fall to remove and destroy plant remains. Elimination of alternate weed hosts also helps reduce populations of leafminers in the field.

Protecting Pollinators from Insecticides  
Protecting pollinators, especially honey bees, from pesticide poisoning should be part of any pesticide program. To avoid killing bees, do not apply pesticides hazardous to bees during the blooming period.

Ideally, pesticides should be applied when there is no wind and when bees are not visiting plants in the area. The time and intensity of bee visitation to a given crop depends on the abundance and attractiveness of the bloom. In general, evening or early night applications are the least harmful to bees.

Dust formulations and microencapsulated pesticides are usually more hazardous to bees than sprays. Wettable powders often have a longer residual effect than emulsifiable concentrates. Ultra-low volume (ULV) formulations of some pesticides are much more toxic than regular sprays.

*Seit 1887*

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# How Much Water Do Your Plants Really Need?

You need to know how much water your irrigation system delivers in a given amount of time.



Automating irrigation based on plant needs is an option that can save a tremendous amount of water.

Water issues are a major concern around the world. Population growth and increased urbanization put increasing pressure on water supplies, making it increasingly important to use water more efficiently.

It's not just the quantity of water that matters, water quality is important as well. Excessive irrigation inevitably results in leaching of water and fertilizer. This results in runoff that can end up in the ground or in surface water if it is not captured on site. Fertilizer runoff, especially nitrogen and phosphorus, can result

in algae growth in ponds and lakes. Many growers face strict fertilizer runoff regulations. The best method to minimize runoff is to water more efficiently.

## Less water needed

Although the question about how much water your plants really need is simple, the answer is not. Surprisingly, there is little information on plant water needs. The last few years, researchers at the University of Georgia and University of Maine have been studying the water needs of plants. The good news is that many plants need much less water than most people expect.

The plants are not given just enough water to survive, but all the water they

need to grow. However, they are only watered when they need to be and no excess water is provided.

Soil moisture sensors should be used to irrigate when volumetric substrate water content drop below 40 percent.

## Determining water needs

Since each greenhouse environment is unique, and weather changes daily and differs from region to region, it is important to have some idea of your plants' water needs. There is a simple way to determine this.

Thoroughly water the plants in the morning and let them drain for at least 30 minutes. Then weigh the pots, come back 24 hours later and weigh the pots again. The decrease in weight is the amount of water that has been used by the plant. Water use will differ from day to day.

The main environmental factors that affect water use are light, temperature and relative humidity. Plant size also plays an important role with larger plants needing more water than smaller ones. Determining daily water use several times during the production cycle, both on warm, sunny and on cool, overcast days will provide you with valuable information for water management.

In order to use this information to water more efficiently, you also need to know how much water your irrigation system delivers in a given amount of time. With drip irrigation, this is simple. Put a few drippers in a beaker, run the drip system for a specific period of time and measure how much water was applied per minute.

Now that you have determined how





**“ Since each greenhouse environment is unique, and weather changes daily and differs from region to region, it is important to have some idea of your plants’ water needs”.**

more frequent irrigation.

Another approach to using soil moisture sensors for irrigation control is to use them like a cut-off switch. A timer can be set to water at a specific time. At that time the irrigation valve opens only if the sensors detect that the substrate water content is below a designated set point. If the substrate is still moist, the sensor prevents the irrigation valve from opening. If the sensor does allow irrigation to occur, it can then turn off the irrigation automatically when the set point for substrate water content is reached.

much water the plants use and how much water is applied per minute, you should be able to make better decisions about how much water to apply. However, dealing with day-to-day fluctuations in plant water use due to changing weather conditions may make frequent adjustments necessary. If you prefer to not have to make these adjustments manually, it is possible to automate your irrigation system in a way that assures that the plants receive only the water they need.

### Sensors improve efficiency

Suppliers have developed irrigation systems that can water plants when needed with the appropriate amount of water. These systems use sensors to measure substrate moisture. Soil moisture sensors have become available that are relatively inexpensive, reliable and low maintenance.

In many cases, the sensors can be connected to computerized greenhouse control systems to directly control irrigation. Sensor operation is simple. When a plant is transpiring, it takes up water from the substrate, which dries out. Since the sensor

**Excessive irrigation inevitably results in leaching of water and fertilizer. This results in runoff that can end up in the ground or in surface water if it is not captured on site.**

measures the substrate water content frequently, the greenhouse environmental computer notices when the substrate water content drops below a particular set point and can turn on the irrigation system. The duration of the irrigation period can be either a set amount of time or it can be sensor-controlled. For example, the irrigation system can be turned on when the substrate water content drops below 40 percent and turned off when it has reached 45 percent.

### Plants control watering needs

By irrigating based on substrate water content, the plants essentially are in control of their watering. On warm, sunny days the plants use water quickly, which results in a quick drop in substrate water content and

### A tablespoon per day

We have studied how different irrigation set points affect a variety of plants. Plants were grown at substrate water levels ranging from 5-40 percent for three weeks. In a peat-lite substrate, a 5-10 percent substrate water level is the lowest most plants could survive and 50 percent is near container capacity. Plant growth increased with increasing substrate water content, although there was little difference between 25-, 30-, 35- and 40-percent treatments. Even in the substrate maintained at 40 percent water level, there was no leaching.

A higher substrate moisture set point result in more frequent waterings, so the amount of water that the plants receive increase with increasing substrate moisture levels. Over a three week period, plants can receive anywhere from 3½ to 22 ounces.

Overall, there is a good correlation between plant growth and the amount of water applied. The referred irrigation can be an effective method of controlling growth.



100 host plants, flowers, vegetables, fruit trees, field crops and other plants. Host plants.

Source of the Threat

- Fresh produce
- Nursery stock
- Biodegradable waste from plants and plant product
- Conveyances such as trucks and other vessels

Signs and Symptoms

Visible caterpillars: whitish and spotted, while mature ones are pinkish and 0.6 (or 3/5) inches in length.

Visible adult moths: small, brownish-gray, nocturnal moths with an average wingspan of 0.6 (or 3/5) inches.

Visible eggs on flowers, fruit and vegetables: whitish, flat and oval

What You Can Do

- Do not export fresh produce unless KEPHIS or other government inspectors have cleared them first if you have any doubts.
- Never remove fresh produce from your farm if your area is under False Codling Moth quarantine.
  - Cooperate with all quarantine restrictions or rules that might be imposed.
  - Allow authorized KEPHIS or other government inspectors access to your farm

## Quarantine Pest

# False Codling Moth



A female moth can lay up to 400 flattened-oval, pin-head sized eggs, usually placed singly. Young caterpillars are yellowish-white with dark spots. Larvae can grow to be 1/2 inch in length and are bright red or pink with a yellow-brown head. On citrus, young larvae mine into the fruit, causing premature ripening.

External indications may be seen as scarring on the fruit. On cotton it first mines the boll wall, but later transfers to the seeds. This feeding habit leaves few indications of the feeding being done inside the seeds. When mature, the larva descends to the ground on a silken thread and spins a tough silken cocoon in the soil and duff.

Males and female adults have distinctly different patterns. The wingspan ranges from 1/2 to 3/4 of an inch. Both genders have patterns on the forewing of grey, brown, black and orange-brown markings. The male's hindwing is slightly reduced with a circular pocket of fine, hairlike black scales overlaid and broad, whitish scales in the anal angle.

What is the risk?

The false codling moth feeds on more than



to install and inspect insect-monitoring traps.

- Know the quarantines in your area and learn to leave Hungry Pests behind.

The False Codling Moth (*Thaumatotibia leucotreta* or FCM) is a threat to many of our flowers fruits, vegetables and other crops. Increased international trade and tourism has increased the risk of introduction of this pest. False Codling Moth can survive in climates described as tropical, dry or temperate. It is estimated that approximately 50 percent of the global environment may be suitable habitat for FCM.

What is it

False codling moth is native to Ethiopia and sub-Saharan Africa. It is not known to be established in many parts of the world. Main routes of introduction are larvae on fruits, pods, or flowers. There are more than 70 potential hosts. The time for development is highly temperature dependant with up to five generations per year.

## Quarantine Pest

# New E.U Rules On False Codling Moth (FCM)

Following a July 14 amendment to the European Union's directive on protective measures against the introduction of harmful organisms into the EU, false codling moth (FCM) has now been included.

This means that FCM is officially a regulated pest for the EU. The regulation states that fresh produce from Africa must either be sourced from an FCM-free area or must be subjected to an effective cold treatment or another effective treatment to ensure freedom from FCM.

The European Union has set new rules to be effected starting January 2018 on false codling moth in that is causing nuisance in cut flowers and particularly the rose flower.

FCM is considered as a quarantine pest not only in the E. U market but in also in The American and Asian markets. Initially, the pest was observed on capsicum plants where it brought peril to farmers. The pest is now a threat to cut flower growers and this calls for a quick action to deal with the pest before much harm is done. The Kenya Plant Health Inspectorate Service (KEPHIS) took the initiative to organise for a consultative meeting with stakeholders in the industry to discuss on the way forward. The pest undergoes a complete life cycle starting from the egg-larva- pupa- adult.

It takes about 21 days for it to develop in to an adult. The pest is most destructive during its larva stage where it bores a hole in right at the centre of the flower and remains in there until it becomes a pupa and causes complete destruction of the flower.

The E.U has put in place stringent regulations on FCM in cut flowers that should be observed starting January 2018. All rose flowers produced for exports should be free from this destructive pest.

Therefore, all stakeholders in the industry should ensure that market requirements are met in order to evade the harsh policies that would be enacted for failure of compliance. They should therefore ensure production of rose flowers that is zero tolerant to FCM. Penalties enacted for lack of compliance include complete ban of exports in to the E.U market and facing rejections from consignees.

Chemical control measure to fight FCM has proved to be futile as it has not been successful. Therefore, growers are advised to use pheromone traps to control the pest. The traps make it possible to monitor the pest population. Also, through chemical applications against Helicoverpa can be effective in the control of FCM. Other control measures that can be employed in fighting the pest include observing of sanitation where the discarded flowers

are removed, the waste is disposed in close containers, and the waste should be destroyed through burning or burying. It is also important to create awareness to all employees regardless of whether they are scouts or not.

The main objective of the introducing the new regulation is to ensure zero FCM interceptions come January 2018 and in turn this will bar increased frequency checks on roses from Kenya. The industry operators and private sectors should ensure that all phytosanitary issues along the value and supply chains are checked at early stages. This will help in ensuring that companies do not suffer extra costs of rejections at the boarder or destination markets. To allow safe trade private operators should be responsible for tracking phytosanitary issues.

## Kenya Flower Council Not Taking Chances

Ms. Sylvia Mamias, Secretary General, Union Fleurs recently visited Kenya recently under invitation of KFC to discuss the impact of false codling moth (FCM) to the flower sector. In a workshop attended by growers, KEPHIS officials and other industry stakeholders, she presented information on the New EU rules on FCM and possible impact on exports of Kenyan roses to the EU.

The industry should scientifically set systems, which can mitigate the phytosanitary risk. These approaches should be in line with the International Standards for Phytosanitary Measures of the FAO's International Plant Protection Convention. They must be developed in conjunction with all stakeholders within the flower industry.

The default system should include four requirements: registration, sanitation, pheromone trap monitoring and inspection. Sanitation is an effective control measure and should be conducted weekly from early in the production season and continued until after the harvest.

Sylvia emphasised on the importance of training everyone in spotting the signs of FCM in flowers, from those scouting to do an initial pre-inspection check, to the harvesters and graders in the pack house. "Pack house grading needs to improve dramatically. Train your people, give them good lighting and magnifying glasses. You can even consider incentivising them to spot buds with signs of FCM infestation," she says.

# You lost me at ‘How are you?’

How to leverage preparation, practice and patience for better business-to-business calls.

By Kate Zabriskie

“Hi, this is Ahmad calling from Acme Industries. How are you?”

“Well, Ahmad, I was a lot happier before you called and interrupted me. I’m behind with my project, and I’m too busy to leave my desk. Don’t call me again.”

Ahmad had an opportunity to win the ear of the person on the other end of the line, but he squandered it by asking a silly question. He probably won’t get another chance to engage that target. Anyone in the business-to-business sales industry will tell you, stepping off on the right foot can mean the difference between clicking and a terminal “click.”

By paying careful attention to three basic things — preparation, practice, and patience — almost anyone can improve their B2B calls.

## Preparation

Are you cold-calling people and hoping for the best, or do you invest an adequate amount of time and effort in homework? Can you use under twenty words to explain your product or service? If not, don’t make the call.

Research the people you plan to call. This doesn’t mean full-throttle cyber stalking, but you need to look for them on LinkedIn, Facebook, Twitter and Google. Search for people by name and company, by name only, and by email address. Together, those three inquiries will yield more complete results than any single query. Searching that way can also reveal personal information you otherwise might have missed that could be useful later. A word of caution: Don’t admit to the depth of your research unless you want to sound creepy. “I saw on Facebook you and your family had a great time at the

Masai Mara last vacation.” This comes off as extremely invasive. Look at the organization’s website and its LinkedIn profile, and run a quick search for news mentions.

If you fail to tend to those basics, don’t be surprised if you get caught and have your lack of knowledge held against you. Next, choose a reason to call. The more specific it is, the more likely you are to get a thoughtful response.

Imagine that you sell agrochemicals, something every farm uses. Your ideal customer is a business with 50-100ha. In a perfect world, your customer does not use a purchasing department to procure these products. You’ve searched for businesses that meet those criteria, and you’ve done the basic research. Now you’re considering a few openings.

Good morning. This is Jane Jones with agrochemicals. I’m calling because I’m verifying a mailing list for a promotion we’re running next month. Could you tell me if you’re the most appropriate person to receive information about our paper special and if you prefer email notification or hard copy?

Good morning. This is Jane Jones with chem chemicals. I’m calling because we sell agrochemicals to farmers. A lot of them have 50 or less. I came across your information on LinkedIn while I was working on something else, and you looked like you might be a good fit for what we do. I wanted to call to see if we could serve as a resource to you. Could you tell me how you are currently purchasing your agrochemicals?

Either of those is sure better than, “Good morning. This is Jane Jones with chem chemicals. How are you today?”

## Practice

Just as a skilled skater makes jumping, twirling, and other acrobatics look as effortless, smooth phone selling requires athlete-level discipline. What you say should roll off your tongue and sound natural. A perfect conversation starter will often sound stilted if it’s not practiced. Work hard to sound unrehearsed.

Practice in the shower, during your commute (assuming you don’t take public transportation), or as part of scheduled role play. Role playing can be painful, but it’s one of the fastest ways to learn.

## Patience

You follow the preparation and practice instructions, and your first two calls are a bust. What happened? Maybe you’ve just been unlucky. Not everyone is going to want to talk to you, and that’s their loss. If you have a good reason to call and you offer a product or service that might solve a prospect’s business problem, hold your head up and press on.

Regularly critique your performance. If improvement is not happening fast enough for you, enlist someone you trust to listen in on your calls. Their comments may sting, but you’ll be glad for the help. There’s no secret sauce in the recipe for better B2B calls, just elbow grease. With better preparation, practice, and patience everyone can improve their results one call at a time.

Kate is the president of Business Training Works Inc., a Maryland-based talent development firm. She and her team help businesses establish customer service strategies and train their people to live up to what’s promised. [businessstrainingworks.com](http://businessstrainingworks.com)

## DFG Award Winner:

# Billy Coulson: 'We're entirely focused on retail

Nini Flowers from Kenya was rewarded with the Dutch Flower Group Award last week. Owner Billy Coulson is very proud and feels honoured. "We didn't think we would win. We've got a strong relationship with DFG, but we didn't realise we were already in that league. I'm very proud of our team."

### What does the DFG Award mean to you?

"It's a very prestigious award. We really appreciate our relationship with DFG. We've been their customer for six years now. Our connection goes back to 2011, when DFG and Mavuno entered into a strategic alliance. The award is the result of six years of collaborating. We were really surprised, but very proud. We didn't think we would win. We've got a strong relationship with DFG, but we didn't realise we were already in that league, if you know what I mean. I'm very proud of our team, too."



### DFG consists of a large group of companies. Which of those are you doing business with?

Our focus is on retail and we sell through DFG to Bloom, Fresh From Source (FFS) and Intergreen. The three of them together function as one large customer for us. We produce 2 million stems per week on two different farms, Nini and Lamorna. A total of 1,000 people work on the farms. The two locations are adjacent to each other, so they're pretty much one and the same. That makes it easier to achieve the same quality for our brand, Nini, on both farms.

We sell about 60% of our produce to DFG. The rest goes to a number of different customers, including The Flower Hub and Rosalink. No, not all of our flowers are shipped to Holland. The flowers for Tesco,

sold through Intergreen, are sent straight to the United Kingdom."

### Nothing is sold through the auction?

"No, no auction. All 2 million stems go to the retail sector. We're entirely focused on retail. There aren't too many companies in Kenya that do the same. Most farms have a mix of customers. We maintain the same, fixed prices all year round – that's our vision. It works for us. It brings a great level of certainty. Actually, we have plans to expand from 44 ha to 54 ha next year, which means we'll be able to produce an additional half a million stems each week. We're currently facing a constant shortage of flowers.

### Sounds like you're happy with the way things are going?

Yes, we're definitely very happy about

our sales. Nini Flowers and DFG are getting stronger and more professional all the time. The logistics are getting more efficient and communication with customers is becoming more and more professional. DFG is working hard on these aspects. They are very open and so are we. I like open relationships with customers.

### Back to the award. What are you going to do with it?

I'm in England at the moment, where I'm meeting a few customers. But when I get back to Kenya, I'm definitely going to do something on our website and share it via other communication channels. I have noticed that

many of our other customers have a lot of respect for DFG. It's the largest flower trading company in the world. Everyone respects them. So, our other customers appreciate them too.

### Did you exhibit at Trade Fair or IFTF?

No, we never exhibit at any trade shows. We sell most of our produce through DFG, exhibiting at trade shows doesn't add any value to that. British supermarket purchasing managers don't visit the fairs, as they mostly target the wholesalers. Our sales are based on long term relationships with customers. I did visit both shows though, and was very impressed with the scale, the professionalism and the variety of the products. All signs of a healthy industry.

Courtesy DFG



# KAVES Project Close Out

The Kenya Agricultural Value Chain Enterprises Project (USAID-KAVES) held a conference on 13th November, 2017 at The Safari Park hotel in Nairobi to mark the close out of an initiative that was started five years ago. Feed the future project was launched in the year 2013 at Kisumu by the U.S ambassador to Kenya H.E. Robert F. Godec. The project was funded by United States Agency for International Development (USAID). The occasion was graced by dignitaries including the CS for Agriculture Hon. Willy Bett and US ambassador to Kenya H.E. Robert Godec among others in the Ministry of Agriculture.



The event highlighted some of the achievements made since the initiation of the project in 2013. The key driver to the start-up of this project was the need to transform the lives of at least 550,000 Kenyan smallholder households which so far has been successful as the target has already been hit. The intervention of USAID-KAVES in the horticultural industry has brought a lot of benefits to smallholders in Kenya. USAID-KAVES organised for trainings to farmers which were facilitated by Good Agricultural Practices (GAP). Through such trainings

a lot of knowledge on healthy agricultural practices was dispatched to farmers who adopted the practices and in turn good yields were witnessed.

During the trainings farmers were enlightened on matters such as land preparation, crop rotation, soil and water conservation, the importance of using certified seeds, the use of agrochemicals for weed control, post-harvest handling and the importance of record keeping.

With the prolonged drought seasons in the

country, Feed the Future flagship project supported and encouraged farmers to purchase solar water pumps which were relatively cheap to use as compared to use of generators thus farmers were able get a better earning.

The institutionalization of a national Horticulture Traceability System (HTS) is yet another huge achievement by the USAID-KAVES. The HTS is designed in to three components; the mobile application where all information regarding all practices carried out on the farm including the farm inputs, agronomic practices, harvest of produce is uploaded.

The Web reporting portal allows data storage and sharing and lastly the Labelling system through Quick Reference (QS) codes makes it easier for farmers to trace their produce right from the farm to the point of consumption. This has helped a big deal in cutting loses. KAVES encouraged farmers to adopt new technology in farming. For instance, they encouraged on the use of super absorbent polymers and organic fertilizers to improve soil structure and crop productivity.





## Uniform MPS-vignette and platform Give Consumers Insight into the Durability of the Flowers and Ornamentals Plant Industry

### CEO MPS Yolande van den Boom introduces the new MPS vignette

The new uniform MPS-vignette was launched on August 23, during the 35th edition of Plantarium, the trade fair for arboriculture. The launch was organised in the stand of MPS, the leading global organisation for sustainability certification. The introduction of the MPS-vignette is supported by the launch of the interactive platform: [www.followyourflowerorplant.com](http://www.followyourflowerorplant.com). Using a unique MPS-number mentioned on the uniform MPS-vignette, consumers can use the platform to trace the grower of their flowers or plants and find information about how sustainably their products were produced.

#### Initiative and responsibility

Sustainability and transparency are important concepts in the flowers and ornamentals industry. As a leading player in sustainability certification, MPS

has taken its responsibility by unifying the large number of MPS-vignettes and logos that are currently used by growers to show how sustainable their products are. In the past, MPS introduced various vignettes, but starting 23 August 2017, all MPS-ABC, MPS-GAP, MPS-SQ and MPS-Q(ualtree)-certified growers and growers who meet the requirements for MPS-ProductProof can use the uniform MPS vignette with a unique MPS number that provides consumers with insight into the grower's sustainability certification.

#### One MPS-vignette

One uniform MPS-vignette has replaced the many MPS vignettes and logos currently used in the flowers and ornamentals industry. Combined with the interactive platform [www.followyourflowerorplant.com](http://www.followyourflowerorplant.com), the new MPS-vignette contributes to creating more uniform product processing and labelling by MPS certified companies, as well as providing transparency to

consumers. In addition, these two measures allow growers to show their consumers how sustainably their products are grown.

The old logos may be used until the end of 2018. As of the 1st of January 2019 the old logos cannot be used anymore on products such as packing materials, plugs, etc. For more durable goods, such as trucks, the logos are still allowed the coming three years. After three years they have to be replaced.

#### Sustainable flowers and ornamentals sector

Sustainability is a status in which we live and produce, answering the needs of today, without putting at risk the ability of future generations to live and produce. Sustainability is a key theme in the green sector, to which the flowers and ornamentals industry belongs, and this sector in particular should be able to create more natural value than it consumes. Consumers are interested in sustainability and want to have quick and easy access to information regarding sustainability. With the uniform MPS-vignette and the interactive platform [www.followyourflowerorplant.com](http://www.followyourflowerorplant.com), MPS is making a substantial improvement to the accessibility of this information.

#### English vignette

The flowers and ornamentals industry is an international sector and MPS is active in 46 countries. MPS tables and certificates are used by more than 3000 growers on 4300 production locations worldwide, which is why an English version of the uniform vignette is also available. An English version of the interactive platform will also be launched shortly. The international hyperlink is: [www.followyourflowerorplant.com](http://www.followyourflowerorplant.com). The new uniform MPS vignette is available on the current website [www.my-mps.com](http://www.my-mps.com), for growers who meet all requirements. The website is available in three languages; Dutch, English and German.

### Cargolite Open Day

On November 30, 60 people attended the Cargolite Open Day, that was held at the Oserian “go down” at NBO airport in Nairobi. Cargolite’s preferred supplier and local agent Dodhia Packaging Kenya Ltd. opened the warehouse and Oserian gave a demonstration on the way to work with the Cargolite packaging concept.

Dodhia Packaging Kenya Ltd. participated in the open day as they have been chosen as the preferred supplier and local agent of the Cargolite components. DPKL opened the Cargolite warehouse, stocked with Cargolite components for the packaging concept. Farms can arrange with DPKL to pick up packaging material after offloading their flowers at the JKIA Cargo village.



At the event, Guy Symondson introduced the Israeli Ambassador to Kenya, Noah Gal Gendler and the Kenyan Flower Council Chairman, Richard Fox as the two main speakers.

After lunch, the main attraction was organized by Oserian, who brought a team of packers headed by their Pack House Manager Martin Kebaka assisted by Philip, and gave a very thorough and detailed demonstration on the way to work with the Cargolite packaging concept.

## Flamingo commits \$2.4 million investment to Dudutech expansion

**F**lamingo Horticulture Investments, a Sun Capital Europe portfolio organisation, announced that they will make a further investment of USD 2.4 million in subsidiary business Dudutech.

To provide farmers with sustainable solutions, Dudutech’s team of over 250 technicians, masters and doctorate level scientists manufacture insect-killing fungi and beneficial predatory insects and mites, which are used as part of an Integrated Pest Management strategy.

Dudutech will direct the additional funding towards expansion of production facilities at the biofactory site in Naivasha, Kenya, including an additional 4ha of greenhouses and an insectary. The project is aimed at increasing production capabilities to provide additional beneficial predatory insects availability to meet growth in demand for biologicals and satisfy the needs of major growers in Africa, Europe and the Americas.

Thomas Mason, Managing Director Dudutech says: “We are incredibly excited to see Flamingo Horticulture Investments backing Dudutech. The new investment will be used to further expand the company’s manufacturing capacity. Alongside this, Dudutech will be recruiting into its management team, broadening its product range and increasing the scope of its international operations.

“This investment will allow us to grow our services to our customers in Africa, Europe and the Americas and ensure availability of our beneficial predatory insects, especially during peak seasons, where demand has outstripped supply in the past.”

Martin Hudson, CEO Flamingo Horticulture Investments comments: “Under the stewardship of an outstanding management team, we believe that Dudutech has consistently demonstrated its ability to deliver on investment strategies, it now plays a critical role in the supply of insect killing fungi and beneficial predatory insects and mites for farmers globally.”



### KEPHIS Laboratory Complex

Deputy President William Ruto officially opened the KEPHIS laboratory complex today, with a call for plant exporters to use synergies that the government has created to access new markets to sell their horticultural produce. The DP officially opened the laboratory complex that was constructed at a cost of approximately KES 250 million from 2009 to 2014 and majorly funded by the European Union(EU).



The laboratory will assure the quality of agricultural inputs and produce destined for the key EU market which includes flowers, fruits, vegetables, nuts and herbs. The DP said the laboratory will use the latest technology to test and approve the right quality of produce that meets the EU market requirements and also seeds, soil and fertilisers before distribution to farmers in Kenya. He further

stated that the country needs new markets in Asia, America and other areas adding that he was pleased that the country now had other markets such as Australia and China where Kenya’s horticultural produce is being exported to.

“We are happy that we have now markets in Australia and China but we need to have more markets,” he reiterated, adding that having new markets will drive Kenya’s industrialization.

KEPHIS as an institution will drive plant trade and assure the quality of agricultural inputs and produce going forward,” he said.

Mr Herbert Perr, the Head of Cooperation at the EU Delegation to Kenya stated that the trading bloc is charged with the responsibility of safeguarding consumer health and safety, resulting in stringent market requirements.

“In this regard, the EU provides support to important source markets, Kenya included, to meet these requirements to guarantee free flow of produce and ensure market stability is maintained,” he concluded.

Finally, he thanked the EU for enabling the construction of the state of the art facility.

### Gender Working Group Activities in Focus: Women Working Conditions Key to Ensure Productivity

In the past few years, FSI members BSR HERproject and EHPEA have been working together to address some of the gaps in knowledge and behaviour on gender-related topics in the workplace and the community. with more than 80% of female workers in Ethiopia’s flower sector, EHPEA decided to engage in a “change in mind set” on the topic at the industry and farm levels.

The successful implementation of a first pilot project, and then a follow-up project currently in progress led

to more than 50 farms working on adopting gender policies, raising awareness among workers and provide training on hygiene, nutrition, family planning and gender-based violence. The first results have clearly demonstrated improvements in workers’ health and awareness, which participating farms link with resulting in less absenteeism, higher motivated workers and an increase in productivity.

Both local and global businesses can help provide more support for ethical labour practices and transparent



supply chains that ensure decent, safe working conditions. Given these opportunities,

BSR HERproject, HIVOS and Partner Africa and other FSI members plan to grow their activities in East Africa by collaborating with the private sector and supply chain actors and keep investing in such women empowerment programmes.

## FSI Members Meeting on 9 Nov at IFTF

## FSI members taking additional steps to accelerate responsible sourcing



During the Royal Flora Holland Trade Fair, FSI members Dutch Flower Group, FleuraMetz, Royal FloraHolland, Royal Lemkes and Waterdrinker organised a series of workshops to discuss with growers and other stakeholders how to accelerate towards the 90% ambition in 2020 and possibilities for certification.

The “Together for a Sustainable Future” workshops took place on 8 and 9 November 2017 at the Royal Flora Holland Trade Fair in Aalsmeer and covered:

- What does sustainability mean for our sector
- Complying with market demands
- How to collaborate towards the 90% in 2020

Three flyers in English, Dutch and German were developed to further raise awareness towards growers and other stakeholders on how to accelerate the ambition and what are the possibilities for certification.

**FSI** organised an informal Members Meeting on 9 November, taking advantage of the Trade Fairs in Holland. The room was full, with more than 40 people attending the meeting and taking part in the discussions around our recent activities and future outlook.

Members were invited to contribute and share their perspectives towards 2020. They discussed the Benchmarking and the Measuring process, the focus on Key

Topics and the project progress amongst others. It was great to see FSI members taking ownership again by presenting the progress on their activities and additional initiatives they are taking in line with the FSI approach.

Clearly there was a lot of interest for further collaboration and improvements, and all expressed again the necessity to have an organisation such as FSI to facilitate responsible development and provide guidance to the sector.

## Bridging efforts towards a Living Wage

On 2 October 2017, Interested FSI members participated in a closed meeting session with industry stakeholders to discuss the findings of the recent Living Wage Benchmarks and studies in Ethiopia and Kenya; explore the possible action plans, and examine the possibility to set-up a focused FSI Working Group on Wages with participation of FSI members, IDH and the GLWC (Global Living Wage Coalition).

With improvements already made and promising solutions being put in place, it's an important topic for FSI members on the agenda while working together with other sectors and coalitions who are also making progress.



### ABIM 2017: "The biggest biocontrols gathering ever"

Dudutech was at the biggest gathering of the biocontrol industry ever, held in October this year. Tom Mason (Dudutech MD) and Barnaba Rotich (Dudutech Commercial Manager) were among the record-breaking delegation of 1050 people from over 500 companies at the 12th Annual Biocontrol Industry Meeting (ABIM) held in Basel, Switzerland.

Recent growth in the biocontrols industry correlates to strong growth in organic farming. According to Lucius Tamm from Research Institute for Organic Agriculture (FiBL), organic farming, despite having boomed by 455% in 17 years from 11 million ha to 50 million ha, provides a smaller market than conventional agriculture. This information hints at the optimism for the future of the industry as biocontrols move closer towards improving mainstream awareness and acceptability.

ABIM 2017 was also a platform for innovation, information and unprecedented face-to-



David Cary, IBMA Executive Director

face networking opportunities. The meeting provided an interactive audience of the world's leading biological technology producers to 69 individual exhibitions and speeches from industry leaders. Tom Mason said the gathering provided a space for "cross pollination of ideas, commercial opportunities and alliances ... in a single forum in Basel, Switzerland."

Tom Mason went on to say, "it's also an opportunity for members of the International Biological Manufacturers Association (IBMA) to meet and agree upon how this industry

David Cary, IBMA Executive Director said "We are constantly encouraged by the growth in visitor numbers this is a reflection of the Steering Committee's continuing commitment to promoting a unique event showcasing innovation, excellence and professionalism in the industry."

association will represent their voice with regulators and the broader industry. Since the formation of the parent association Bio Protection Global (BPG) in 2014 the board of BPG also congregates to discuss the broader global industry challenges and opportunities. As 2018 president of Bio Protection Global I am trying to drive the success of BPG in a similar fashion to the chemical industry association Crop Life International and we hope to make good progress during the course of 2018, alongside Board Chair Rick Melnick the Brand Manager for Vlaent Biosciences."

### Buzzing and crowded week in the Netherlands around the Trade Fairs



This year, yet another event was added to the already busy agenda of the Trade Fairs in the Netherlands: On 7 November, the World Flower Forum kicked off the week on an interesting theme: "Vertical integration in the horticultural sector".

Among the speakers, Sylvie Mamias of Union Fleurs set the tone outlining the five key

challenges of the global floricultural industry: Market Growth, Internationalisation, Supply-chain optimization, Digitization and Collaboration.

The panel speakers, including Augusto Solano of Asocolflores responded by calling for more collaboration between the main flower exporting countries to better penetrate the different markets. Other speakers Jan Rotmans, Lucas Vos and Marco van Zijverden explored possibilities such as external competition from major international multi-market players, 3D printers and the endless possibilities of the internet such as the blockchain, online platforms and promotion on social media. Sustainability was a key word during the Summit, as industry players stressed the importance of finding innovative solutions that will create long-term added value by respecting people and

natural resources while gaining trust from the consumer.

Hosted by Royal floraHolland and co-organised by Union Fleurs, Ciopora, AIPH, Florint, and Fleuroselect, the event aimed to activate a constructive discussion between all parts of the supply chain on the future of our sector.

From 8 to 10 November, both the IFTF and the Royal FloraHolland Trade Fair opened their doors to thousands of visitors from all four corners of the world. FSI took full advantage of the week to meet with members, make new contacts, and discuss the current and future topics on the sustainability agenda with different stakeholders in the sector.

### The International Floriculture Trade Fair (ITFF)



The ITFF show was a three day event held from 8th November to 10th November, 2017 at Haarlemmermeer, Vijfhuizen in Holland. The fair created an excellent forum where stakeholders from the floriculture industry met to showcase their products as well as attract new markets for their products and get new contacts. It also provides a platform where new products are introduced and platform for creating network.

As one of the biggest shows in the world, 28 countries attended the show including Kenya. The Kenya Flower Council (KFC) had one stand that hosted six flower farms from Kenya including; Redlands Roses, Harvest Flowers, Oserian Development Co. Ltd, Jasons Limited, Kariki Group and Penta Flowers. Other flower farms such as Baraka Flowers, Panda Flowers, Sunland Roses, PJ Dave flowers etc. had their own stands. The KFC CEO Mrs. Jane Ngige was impressed with the good representation of the Kenyan flower farms and instigated the idea of joining hands to display Kenyan products as one.

High profile visitors present included charge de affairs Kenyan Embassy Hague, H.E. Rose Sumbeiywo and Patrick Nzusi Embassy of Kenya Brussels who were impressed with the booths that were in match with the international exhibitors. They also pledged to continue supporting exporters on trade matters with E.U and

KFC in organising trade expos abroad. Alongside the trade fair, KFC in collaboration with Business for Social Responsibility (BSR) an international project working in 14 countries across multiple sectors held a workshop on 9th November that saw Fair-trade Africa, KFC associates, Representatives from Netherlands and Brussels, Hivos and different flower farms attend. The theme of the workshop was 'The need for social projects in the flower industry and their impacts to workers'. The workshop mainly focussed on the impacts of HERprojects one of the project of BSR as implemented by KFC in Kenya and other farms in Ethiopia and Colombia. Mrs. Jane Ngige KFC CEO officially opened the workshop and elucidated on how the project has been useful to KFC as it majorly focuses on women empowerment.

Kenya, Ethiopia and Colombia told tales of experience on the impacts of the implementation of this project which were akin in the three countries. Some of the impacts highlighted include: Improved work performance, reduced sexual harassment among workers, Low absenteeism rates, Health issues, reduced stigmatisation, and improved relationships among workers, improved workers health and services. The benefits of the project are felt throughout the farms in to the community set-ups. The KFC CEO urged more flower farms to implement the project and start experiencing the benefits that comes with it.

### Kenya Eyes China Cut Flower Market



Kenya is banking on her long-standing relations with China to have a four per cent levy on flower exports to the Asian country scrapped.

The latest push comes in the wake of the country experiencing logistical headwinds in its quest to penetrate other key markets such as Australia.

Currently, Kenya's biggest export market of cut flowers is Europe where they are sold duty-free, although that could change in the absence of a new Economic Partnership Agreement (EPA) – a concessional trade deal between East African Community (EAC) countries and Europe.

The deal primarily provides access to EAC exports to European markets duty-free and quota-free, while the European Union gets a gradual liberalisation of tariffs in EAC markets.

Kenya Airways Commercial Manager in Charge of Cargo Peter Musola said bilateral talks between Kenya and China were at an advanced stage as the latter eyes the hugely untapped market.

# The International Floriculture Trade Fair (IFTF) in photos





# FLOWER & VEGETABLE FARMS IN KENYA

FARM NAME	PRODUCT	LOCATION	CONTACT PERSON	TELEPHONE	E-MAIL
AAA- Flowers-Rumuruti	Roses	Rumuruti	Shailesh	0722 203750	shailesh.rai@aaagrowers.co.ke
AAA- Flowers -Chui Farm	Roses	Timau	Shailesh	0722 203750	shailesh.rai@aaagrowers.co.ke
AAA Growers	Vegetables / Flowers	Nairobi			
AAA-Chestnut		Narumoru			
AAA-Growers		Nakuru			
AAA-Hippo	Vegetables	Thika	Vincet	0726999080	vincet@aaagrowers.co.ke
Acacia Farm-Sunripe		Naivasha	Antony	0711827785	naivasha@sunripe.co.ke
Africala	Cuttings	Eldoret	Meindert	-	meindert@africalla.com
Africa Blooms	Roses	Salagaa	Ravindra Chaudhari	0723159076	ravindra.chaudhari@xflora.net
African Kenya Ltd	Hypericum	Naivasha	Charles Mwangi	-	-
Alani Gardens	Roses	Nakuru	Judith Zuurbier	0722 364 943	alani@alani-gardens.com
Aquila Development Co	Roses	Naivasha	Abhay Marathe	0729776656	gm@aquilaflowers.com
Bamboo Farm-Sunripe		Nakuru	Reuben	0723920237	
Balaji Flowers	Roses	Olkalou	Erastus Simiyu	0711393248	erastus190@gmail.com
Baraka Farm	Roses	Ngorika	Lucy Yinda	-	lucy@barakaroses.com
Batian Flowers	Roses	Nanyuki	Dirk Looj	0720102237	dirk@batianflowers.com
Beautyline	Flowers	Naivasha	Peter Gathiaka	0722676925	peter@beautyli.com
Big Flowers	Roses	Timau	Simon Blinco	0723234927	simon@maufloa.co.ke
Bigot Flowers	Flowers	Naivasha	Kakasaheb Jagtap	0722205271	jagtap.kt@bigotflowers.co.ke
Bila Shaka Flowers	Roses	Naivasha	Joost Zuurbier	0722204489	bilashaka.flowers@zuurbier.com
Black Petals	Roses	Limuru	Nirzar Jundre	0722848560	nj@blackpetals.co.ke
Bliss Flora Ltd	Roses	Njoro	Appachu Sachin	0789101060	appachu7@yahoo.com
Blue Sky	Summer Flowers	Naivasha	Mike	0720005294	info@blueskykenya.com
Bloom Valley		Salgaa	Ramnath Sarbande	0780314387	ramnath.sarbande@xflora.net
Blooming Dale Roses Kenya Ltd	Flowers	Nanyuki	Sunil	0718991182	info@bloomingdaleroses.com
Buds and Blooms	Roses	Nakuru	Shivaji Wagh	0720895911	shivaniket@yahoo.com
Carzan (K) Ltd	Summer flowers- Hypericum, Carnations	Salgaa	Mahesh		seb.chambers@carzankenya.com
Charm Flowers	Flowers	Athiriver	Ashok Patel	020 352583	ashki@charnflowers.com
Colour Crops	Hypericum	Nanyuki	Kennedy Wanyama	0716389472	colourcrops@tmu.com
Colour crops	Summer Flowers- Hypericum, Veronica	Bahati	Patrick Kipkurui	0727806184	kipkirui89@gmail.com
Colour crops Naivasha	Flowers	Naivasha	Geoffrey Mwaura	0722200972	nva@colourcrops.com
Credible Blooms	Flowers	Rumuruti	Eliud Njenga	0722382859	eliud@pigeonblooms.com
Credible Blooms	Flowers	Ngong	Eliud Njenga	0722382859	eliud@pigeonblooms.com
Dale Flora	Roses	Mogotio	Ajay Sutar	0711102266	ajay.sutar24@gmail.com
Delemere Pivot	Vegetables	Naivasha	Daniel Ondiek	0720395963	daniel.ondiek@vegpro-group.com
Desire Flowers	Flowers	Isinya	Rajat Chaohan	0724264653	rajatchaohan@hotmail.com
De ruiters	Breeder Roses	Naivasha	Fred Okinda	0722579204	Fred.okinda@deruiter.com
Double Dutch	Cuttings	Naivasha	James Opiyo	0723516172	Opiyojames160@gmail.com
Duro Farms	Hypericum	Naivasha	George Anguko	0725762099	george@durofarms.com
Dummen Orange	Flowers Breeders	Naivasha	Steve Outram	0733 609863	s.outram@dummenorange.com
Elbur flora	Roses	Nakuru	Daniel Moge	0721734104	kimmanexp@gmail.com
Enkasiti Thika	Flowers	Thika	Tambe	0734256798	enkasiti@gmail.com
Equinox	Flowers	Nanyuki	Harry Kruger	0707266956	harry@equinoxflowers.com
Everflora Ltd.	Flowers	Thika	Bipin Patel	0735873798	everflora@dmbgroup.com
Exotic Peninah	Roses/ Carnations	Athiriver	Dan	0734626942	dan@exoticfields.com
Fairy Flowers	Flowers	Limuru	Sylvester	0753444237	sylvesterkahoro@yahoo.com
Hides Kenya Ltd	Cuttings	Embu	Francis Mwangi	068-30776	francis.mwangi@dummenorange.com
Flamingo Holdings Farm	Flowers	Naivasha	Peter Mwangi	0722204505	peter.mwangi@flamingo.net
Flamingo Holdings-Kingfisher Farm	Flowers	Naivasha	Charles Njuki	0724391288	charles.njuki@flamingo.net
Flamingo Holdings- Kingfisher Farm	Flowers	Naivasha	Jacob Wanyonyi	0722773560	jacob.wanyonyi@flamingo.net
Flamingo Holdings-Siraji Farm	Carnations, Roses	Nanyuki	-	-	-
Finlays -Tarakwet	Flowers	Kericho	Lelon Chepkwony		
Finlays Chemirel	Flowers	Kericho	Aggrey Simiyu	0722601639	aggrey.simiyu@finlays.co.ke
Finlays- Lemotit	Flowers	Kericho	Japheth Langat	0722 863527	japheth.langat@finlays.co.ke
Flamingo Flora	Roses	Njoro	Sam Nyoro	0721993857	s.ivor@flamingoflora.co.ke
Flora ola	Roses	Solai-Nakuru	Lucas Choi	0721832710	lucas.floraola@gmail.com
Flora Delight	Summer flowers	Kiambu/ Limuru	Marco	0710802065	marcovansandijk@yahoo.com



# FLOWER & VEGETABLE FARMS IN KENYA

FARM NAME	PRODUCT	LOCATION	CONTACT PERSON	TELEPHONE	E-MAIL
Florensis Ltd	Cuttings	Naivasha	Anne Marie		annemarie@florensis.co.ke
Florenza Flowers	Roses	Solai	Yogesh	0737453768	farm.florenza@megaspingroup.com
Fontana Ltd-Salgaa	Roses	Salgaa	Kimani	0733605219	production@fontana.co.ke
Fontana Ltd - Akina farm	Roses	Njoro	Mahindra Patil	0798254199	--
Fontana Ltd - Ayana Farm	Roses	Mau Narok	Gideon Maina	0721 178974	gideon@fontana.co.ke
Fox Ton Agri		Naivasha	Jim Fox	0722204816	jim@foxtonagri.com
Frigoken K Ltd	Vegetables	Nairobi			
Gatoka Roses	Roses	Thika	Robert Mutembei	0720639392	info@gatokaflowers.com
Gladioli Ltd		Naivasha	Pieriguichi / Claudia	0722206939	torres.palau@yahoo.com
Golden Tulip	Roses	Olkalao	Umesh Choudhery	0739729658	umesh@bth.co.ke
Gorge Farm	Roses	Naivasha	Patrick Mulumu	0722498267	pmulumu@vegpro-group.com
Groove	Flowers	Naivasha	John Ngoni	0724448601	grovekenya@gmail.com
Harvest / Manjo Plants	Roses	Olkalao	Pius Kimani	0721747623	pius.kimani@gmail.com
Harvest Ltd	Roses	Athiriver	Julius Oloo	0721465853	julius@harvestflowers.com
Highland plantations	Cuttings & Herbs	Olkalau			production@highlandplants.co.ke
Imani Flowers	Summer Flowers	Nakuru	Raphael Otieno	0792302466	raphael@imaniflowers.co.ke
Indu Farm	Vegetables	Naivasha	Wesley Koeh	0715546908	
Indu -Olerai Farm		Nakuru	Everline Debonga	0723383160	everlyne.adhiambo@indu-farm.com
Interplant Roses	Roses	Naivasha	Gavin Mouritzen	0733220333	info@interplantea.co.ke
Isinya	Flowers	Isinya	Rajesh	-	pm@isinyaroses.com
Jatflora		Naivasha	James Oketch	0724418541	jatflora@gmail.com
Jesse AGA		Mweiga	Thuranira	0754444630	davidt@eaga.co.ke
Karen Roses	Flowers	Nairobi	Peter Mutinda	0723353414	pmutinda@karenroses.com
Kariki Ltd.	Flowers	Thika	Samwel Kamau	0723721748	production@kariki.co.ke
Kariki Ltd - Nanyuki	Eryngiums	Nanyuki	Richard Fernandes	062-31023/6	bondet.production@karik.biz
Kariki Ltd - Hamwe	Hypericum	Naivasha	Peter Kamwaro	0721758644	hamwe.fm@kariki.biz
Kariki Ltd - Hamwe- Molo	Fowers	Molo	Joseph Juma	0725643942	production.fm@kudenga.co.ke
Twiga Flowers	Flowers	Naivasha	pius Kimani	0721747623	pius.kimani@gmail.com
Kenflora Limited		Kiambu/ Limuru	Abdul Aleem	0722311468	info@kenflora.com
Kentalya	Cuttings	Naivasha	Linnet	0733549773	lynette@kentalya.com
KHE		Nanyuki	Elijah Mutiso	0722254757	mutiso@khekenya.com
Kisima Farm	Roses	Timau	Martin Dyer	0722593911	martin@kisima.co.ke
Kongoni River Farm - Gorge Farm	Roses	Naivasha	Anand Patil	0728608785	anand.patil@vegpro-group.com
Kongoni River Farm - Liki River	Flowers	Nanyuki	Madhav Lengare	0722202342	madhav@vegpro-group.com
Kongoni River Farm - Star Flowers	Flowers	Naivasha	Dinkar	0789487429	dinkar@vegpro-group.com
Kongoni River Farm - Kongoni	Flowers	Timau	Oppaso Bandgar	07120070053	oppasobandgar@vegpro-group.com
Kongoni River Farm -Bemack	Flowers	Timau	Rakesh Kuttaiah	0724631299	rakesh.kuttaiah@vegpro-group.com
Korongu Farm		Naivasha	Macharia	0721387216	
Kreative	Roses	Naivasha			
Lamorna Ltd	Roses	Naivasha	Mureithi	0722238474	admin@lamornaflowers.com
Lathyflora		Limuru	Mbauni John	0721798710	mbaunij@yahoo.com
Lauren International	Flowers	Thika	Chris Ogutu/Carlos	0722783598	laurenflowers@accesskenya.co.ke
Laurel Investment	Roses	Nakuru	Rajendra Jadhav	0738359459	rajendra.laurel@bht.co.ke
Livewire	Hypericum	Naivasha	Esau Onyango	0728606878	management@livewire.co.ke
Lobelia Ltd/ Sunland	Roses	Timau	Peter Viljoen	0721632877	info@lobelia.co.ke
Lolomarik	Roses	Nanyuki	Topper Murry	0715 727991	topper@lolomarik.com
Loldia Farm		Naivasha	Gary/Rotich	0720651363	
Longonot Horticulture		Naivasha	Chandu	0724639898	chandrakant.bache@vegpro-group.com
Longonot Horticulture		Naivasha	Patrick Mulumu	0722498267	patrick.mulumu@vegpro-group.com
Magana	Roses	Nairobi	John Ngugi	0725307509	productionmanager@maganaflowers.com
Mahee Flowers	Roses	Olkalao	Rao Venkatesh	0705401431	maheefm@eaga.co.ke
Maridadi Flowers	Flowers	Naivasha	Jack Kneppers	0733333289	jack@maridadiflowers.com
Maua Agritech	Flowers	Isinya	Madan Chavan	0738669799	production@mauaagritech.com
Mau Flora	Roses	Molo	Mahesh	0787765684	mahesh@mauflora.co.ke
Milmet/Tindress Farms	Flowers	Solai	Pravin		pravinyadav.29@gmail.com
Molo Greens	Summer Flowers	Molo	Justus Metho	0722 755396	justus@mologreens.com
Mt. Elgon Flowers	Roses	Eldoret	Bob Anderson	0735329395,	bob@mtelgon.com



# FLOWER & VEGETABLE FARMS IN KENYA

FARM NAME	PRODUCT	LOCATION	CONTACT PERSON	TELEPHONE	E-MAIL
Mwanzi Flowers Ltd	Roses	Rumuruti	Ram	0722265845	-
Mweiga Blooms	Flowers	Nanyuki	Stewart/ Mburu	0721674355	mweigablooms@wananchi.com
Mzuurie Flowers - Maji Mazuri	Roses	Eldoret	Mark Juma	0727471034	mjuma@majimazuri.co.ke
Mzuurie Flowers - Molo River Roses	Flowers	Kilelwa	Andrew Wambua	0724256592	awambua@moloriverroses.co.ke
Mzuurie Flowers - Winchester Farm	Roses	Karen	Raphael Mulinge	0725848909	rmulinge@winchester.co.ke
Mzuurie Flowers - Winchester Farm	Flowers	Bahati	Raphael Mulinge	0725848909	rmulinge@winchester.co.ke
Nini Farms	Roses	Naivasha	Philip Kuria	0720611623	production@niniltd.com
Nirp East Africa	Roses	Naivasha	Danielle Spinks	0702685581	danielles@nirpinternational.com
Ol Njorowa	Roses	Naivasha	Charles Kinyanjui	0723986467	mbegufarm@iconnect.co.ke
Oserian	Flowers	Naivasha	Musyoka Stephen	0722888377	stephen.musyoka@oserial.com
Panda Flowers	Roses	Naivasha	Chakra	0786143515	chakra@pandaflowers.co.ke
Panocol International	Roses	Eldoret	Mr. Paul Wekesa	0722748298	paul.wekesa@panocal.co.ke
Penta	Flowers	Thika	Tom Ochieng	0723904006	tom@pentaflowers.co.ke
Pendekeza	Roses	Nanyuki	Richard Siele	0722716158	tambuzi.sales@tambuzi.co.ke
Pj Dave	Flowers	Isinya	Simiyu	0723500049	pjdavetimau@pjdaveepz.com
Pj Flora	Flowers	Isinya	Palani Muthiah	0752607651	muthiah.palani1971@gmail.com
Pj Flowers Ltd	Roses	Isinya	Sanjiv	0737576966	sanjiv@pjdave.com
Plantation Plants	Cuttings	Naivasha	William Momanyi	050 20 20282	pplants@kenyaweb.com
Plantech Kenya Ltd	Propagators - Herbs, Roses & Vegetables	Naivasha	Idan Salvy	0702187105	idan@plantechkenya.com
Porini Flowers	Roses	Molo	Vivek Sharma	0731040498	gm@poriniflowers.com
PP Flora	Roses	Nakuru	Prakash	0718045200	ppflora2010@gmail.com
Primarosa Flowers Ltd	Roses	Olnjororok	Shantaram	0701464049	production.p2@primarosaflores.com
Racemes Ltd		Naivasha	Bonny	0721938109	bonny@kenyaweb.com
Rain Forest Farmlands Ltd	Roses	Naivasha	Benard Omwansa	0722912943	bomwansa@fleurafrica.com
Ravine Roses Flowers	Flowers	Nakuru	Peter Kamuren	0722205657	pkamuren@karenroses.com
Redland Roses		Thika	Aldric Spindler	0733603572	aldric@redlandsroses.co.ke
Redwing Flowers	Flowers	Nakuru	Simon Sayer	0722227278	sayer@redwingltd.co.ke
Rift Valley Roses (K) Ltd	Flowers	Naivasha	Peterson Muchuri	0716589898	fm@riftvalleyroses.co.ke
Rimiflora Ltd	Hypericum	Njoro	Richard Mutua	0722357678	richard@rimiflora.com
Riverdale Blooms Ltd		Thika	Antony Mutugi	0202095901	rdale@swiftkenya.com
Roseto	Roses	Roseto	Arvind	0734848560	gm.roseto@megaspingroup.com
Rozzika Gardens - Kamuta Farm		Naivasha	Mbuthia	0721849045	jwachiram@yahoo.com
Savannah international	Geranium	Naivasha	Ignatius lukulu	0728424902	i.lukulu@savanna-international.com
Selecta Kenya		Thika	Alnoh Ludwig	0738572456	l.allnoch@selectakenya.com
Sojanmi Spring Fields	Roses	Njoro	Ashesh Mishra	0792217088	ashesh@xflora.net
Schreus	Roses	Naivasha	Haiko Backer	-	-
Shades Horticulture	Flowers	Isinya	Mishra	0722972018	info@shadeshorticulture.com
Shalimar Flowers	Flowers	Naivasha	Anabarasan	0733604890	anbarasan@eaga.co.ke
Sian Roses - Maasai Flowers	Flowers	Isinya	Andrew Tubei	0722728364	atubei@sianroses.co.ke
Sian Roses - Agriflora (K) Ltd	Roses	Nakuru	Clement Ngetich	0723159619	cngetich@sianroses.co.ke
Sian Roses - Equator Roses	Roses	Nakuru	Nehemiah Kangogo	0725848910	nkangogo@sianroses.co.ke
Sian Roses - Equator Flowers	Roses	Eldoret	Charles Mulemba	0721311279	cmulemba@sianroses.co.ke
Sierra flora	Roses	Njoro	Sharieff	0787243952	farm.sierra@megaspingroup.com
Simbi Roses	Roses	Thika	Karue Jefferson	067 44292	simbi@sansora.co.ke
Sirgoek Flowers	Flowers	Eldoret	Andrew Keittany	0725 946429	sirgoek@africaonline.co.ke
Solai Milmet/Tindress	Flowers	Nakuru	Vinoj J. Kumar	0737801646	solairoses@gmail.com
Subati Flowers	Roses	Subukia	Naren Patel	0712 584124	naren@subatiflowers.com
Subati Flowers	Roses	Naivasha	Naren Patel	0712 584124	naren@subatiflowers.com
Suera Flowers Ltd	Roses	Nyahururu	George Kimathi	0724622638	gkbuuri@gmail.com
Sunland Timau Flair	Roses	Timau	Peter Viljoen	0723383736	info@lobelia.co.ke
Stockman rozen	Roses	Naivasha	Julius muchiri	0708220408	julius@srk.co.ke
Syngenta Flowers - Kenya Cuttings	Flowers	Ruiru	James Ouma	0725217284	john.odhiambo@syngenta.com
Syngenta Flowers - Kenya Cuttings	Flowers	Thika	Kavosi Philip	0721225540	philip.munyoki@syngenta.com
Syngenta Flowers - Pollen	Flowers	Thika	Joseph Ayieko	0733552500	joseph.ayieko@syngenta.com
Tambuzi	Roses	Nanyuki	Richard Siele	0722716158	tambuzi.sales@tambuzi.co.ke
Timaflo Ltd	Flowers	Nanyuki	Simon van de Berg	0724443262	info@timaflo.com
Transebel		Thika	David Muchiri	0724646810	davidmuchiri@transebel.co.ke
Tropiflora		Kiambu/Limuru	Niraj		tropiflora@africaonline.co.ke





# FLOWER & VEGETABLE FARMS IN KENYA

FARM NAME	PRODUCT	LOCATION	CONTACT PERSON	TELEPHONE	E-MAIL
Tulaga Flowers	Roses	Naivasha	Steve Alai	0722659280	tulagaflower@africaonline.co.ke
Tulaga Flowers	Roses	Rumuruti	Gideon Kariuki	0701153844	tulagamarmant@africaonline.co.ke
Tk Farm		Nakuru	Gichuki	0721499043	davidgichuki20@yahoo.com
Uhuru Flowers	Flowers	Nanyuki	Ivan Freeman	0713889574	ivan@uhuruflowers.co.ke
United Selections	Roses -Breeder	Nakuru	Jeroen Van Marrewijk	0700176556	jvanmarrewijk@united-selections.com
V.D.Berg Roses	Flowers	Naivasha	Johan Remeus	0721868312	johan@roseskenya.com
Valentine Ltd		Kiambu/Limuru	Maera Simon	0721583501	simon.maera@valentinegrowers.com
Van Kleef Ltd	Roses	Njoro	Rathan	0787266007	rathan@vankleef.nl
Vegpro K Ltd Vegetables		Nanyuki	John Kirunja	0729555499	john.kirunja@vegpro-group.com
Vegpro K Ltd	Vegetables	Nairobi	Judy Matheka	0721245173	jmatheka@vegpro-group.com
Vegpro K Ltd	Vegetables	Nanyuki	John Nduru	0722202341	jnduru@vegpro-group.com
WAC International	Breeder	Naivasha	Richard Mc Gonnell	0722810968	richard@wac-international.com
Waridi Ltd		Athiriver	P. D.Kadlag	0724-407889	kadlag@waridifarm.com
Wildfire	Roses/summer	Naivasha	Eliud Kimani	0727598349	roses@wildfire-flowers.com
Wilfay Flowers	Gypsophila/hypericum	Subukia	Makori	0723358644	makoriwilfay@gmail.com
Wilmar Agro Ltd	Summer Flowers	Thika	Alice Muiruri	0722 321203	alice.muiruri@wilmar.co.ke
Windsor		Thika	Vikash	073705070	vikash@windsor-flowers.com
Xpressions Flora	Roses	Njoro	Brijesh Patel	0715469732	brijesh.patel@xflora.net
Zena -Thika Farm	Roses	Thika	Vincent	-	sales@zenaroses.co.ke
Zena - Asai Farm	Roses	Eldoret	Phanuel Ochunga	0722506026	pochunga@zenaroses.com
Zena Roses - Sosiani Farm	Roses	Eldoret	Phanuel Ochunga	0722506026	pochunga@zenaroses.com

## FLOWER FARMS IN UGANDA

TYPE	FARM NAME	CONTACT PERSON	LOCATION	PHONE NUMBERS	E-MAIL
Roses	Rosebud	Ravi Kumar	Wakiso	0752 711 781	ravi.kumar@rosebudlimited.com
Roses	Maiye Estates	Premal	Kikwenda wakiso		premal@maiye.co.ug
Roses	Jambo flowers	Patrick Mutoro	Nakawuka Sisia Wakiso	(254) 726549791	pmutoro80@yahoo.co.uk
Roses	Pearl Flowers	Raghib Sandhu	Ntemagalo Wakiso	0772 72 55 67	pearl@utlonline.co.ug
Roses	Aurum flowers	Kunal Lodhia Shiva	Bulega, Katabi Wakiso	0752 733 578	kunal@ucil.biz
Roses	Eruma roses	Kazibwe Lawrence	Mukono	0776 049987	kazibwe@erumaroses.com
Roses	Uga rose	Grace Mugisha	Katabi Wakiso	0772 452 425	ugarose@infocom.co.ug
Roses	Kajjansi	K.K rai	Kitende Wakiso	0752 722 128	kkrai@kajjansi-roses.com
Roses	Uganda Hortech	M.D hedge	Lugazi Mukono	0703 666 301	mdhedge@mehtagroup.com
Chrysanthemums	Fiduga	Jacques Schrier	Kiringente , Mpingi	0772 765 555	j.scherier@fiduga.com
Chrysanthemums	Royal Van Zanten	Jabber Abdul	Namaiba Mukono	0759 330 350	j.Abdul@royalvanzanten.com
Impatiens, poinsetia	Wagagai	Olav Boenders	Iwaka Bufulu Wakiso	0712 727377	olav@wagagai.com
Chrysanthemums	xclusive cuttings	Peter Benders	Gayaza- Zirowe rd	0757 777 700	pbenders@xclusiveuganda.com

## FLOWER FARMS IN TANZANIA

TYPE	FARM NAME	CONTACT PERSON	LOCATION	PHONE NUMBERS	E-MAIL
Roses	Kili flora	Jerome Bruins	Arusha	255 27-25536 33	jbruins@habari.co.tz
Roses	Mt. Meru	Tretter	Arusha	255 27 2553385	office@mtmount-meru-flowers.com
Roses	Tengeru Flowers	Tretter	Arusha	255 27 255 3834	teflo@africaonline.co.tz
Crysenhemums	Multi flower Ltd	Tjerk Scheltema	Arusha	255 27 250 1990	tjerk@arushacutting.com
Crysenhemums	Dekker Bruins	Lucas Gerit	Arusha	255 27 255 3138	info@tfl.co.tz
Crysenhemums	Arusha cuttings	Tjerk Scheltema	Arusha	255 27 250 1990	tjerk@arushacutting.com



# FLOWER FARMS IN ETHIOPIA

TYPE	FARM NAME	CONTACT PERSON	LOCATION	PHONE NUMBERS	E-MAIL
Cuttings	Abssinia flowers	Toon Van Kessel	Legedadi	+251 116653911	tvankessel@yahoo.com
Roses	Addisfloracom PLC	Kitema Mihret	Holeta	+251 912 264190	tasfaw@addisflora.com
Folwers	Afriflowers PLC	Mauricio Castillo	Holeta	+251 937977849	topigs@grepodelago.com
Fruits & Vegetables	Africa Juice Tibila S.C	Abayeneh Essayas	Adama	+251 221191203	info@africajuice.com
Roses	Agriflora		Holeta	+251 922 397760	flowers@ethionet.et
Roses	Alliance Flowers PLC	Navale	Holeta	+251 116184341	navele@nehainternational.com
Roses	Arsi Agricultural Mecahanization		Holeta		arsiflower@ethionet.et
Cut Flowers	Assela Flowers Farm PLC	Friedrich Wilhelm	Wolliso	+251 911431417	info@asselaflowers.com
Roses	AQ Roses PLC	Frank Ammerlaan	Ziway	+251 464414277	frank@aqroses.com
Cut Flowers	Beti Ornamentals	Henock Zerihun	Debre Zeit	+251 116521211	betiornamentaldz@gmail.com
Roses	Bukito Flowers	Anteneh Tesfaye	Debra Zyeit	+251 911 615571	
Roses	Braam Flowers PLC	Ben Braam	Ziway	+251 464413137	braam.roses@gmail.com
Cuttings	Desa Plants PLC	Ben Depraeter	Mojo-Ejersa	+251 116569195	ben@desaplants.com
Roses	Dire Highlands Flowers PLC	Seifu Bedada	Holeta	+251 113870308	dhf@ethionet.et
Roses	Dire flowers 2	Abenet Fiktu	Sebata	+251 911 149 329	abifiktu@yahoo.com
Roses	Dugda Floriculture Dev't PLC	A dugna Bekele	Debre Zeit	+251 4336142/43	general@dugdaflora.com
Roses	Ethio dream PLC	Jan Prins	Holeta	+251 11 2372334/35	ethiodream@ethionet.et
Roses	Ethio Agri- CEFT	Asfaw Kejela	Welmera	+251 112372415/18	ethioagricft@ethionet.et
Roses	Enyi Ethio Roses	Endale Yirga	Kara Kore Sebata	+251 113482143	enyi@ethionet.et
Roses	Eden Roses	Vaibhav Aggarwal	Sebata	+251 8959343	vaibhav@edenroses.com
Roses	Ethio passion Agro PLC/Oda Flowers	Roshan Muthappa	Sebata	+251 111561572/73	ethiopassion@ethiopassion.com
Roses	ET Highland Flora PLC	Tsegaye Abebe	Sebata	+251 113383710	bnf2etf@ethionet.et
Roses	Euro Flora PLC	Shiranda Pia	Holeta	+251 118602075	eurolora@gmail.com
Roses	Evergreen Farm	Hiwot	Debra zyeit	+251 912 18 5065	Hiwot.Ayaneh@yahoo.com
Hydragiums	Ewf Flowers	Humphrey	Sebata	+251 920 35 1931	production-manager@Ewf-flowers.com
Cuttings	Ethiopia Cuttings PLC	Sunil Hemdev	Koka	+251 224590151-55	akalu.ermias@syngenta.com
Cuttings	Ethiopia Magical Farm	Daniel Bentora	Sendafa	+251 118606534	emf@ethionet.et
Summer Flowers	Freesia Ethiopia PLC	Ronald Vijverberg	Sebata	+251 118101018	freesia@ethionet.et
Roses	Friendship Flowers	A. Tsegaselassie	Debre zeit	+251 91 130 49 67	friendship.flowers@yahoo.com
Roses	Flowerama PLC	Srinivasan Mini	Holeta	+251 112849349	floweramaa@hotmail.com
Cuttings	Florensis Ethiopia PLC	Ronald Vijverberg	Koka	+251 116525556/57	florensis@ethionet.et
Roses	Gallica Flowers PLC	Stephane Mottier	Menagesha	+251 112849368	gallicaethionet.et
Roses	Golden Rose Agro Farm Ltd	Ryaz Shamji	Sebata	+251 113520282/84	goma@ethionet.et
Roses	Herburg Roses PLC	Huub Van Der Burg	Ziway	+251 464414281/79	huu@herburgroses.nl
Roses & Veges	JJ Kothari PLC	Jay Prakash Kothari	Sululta	+251 111860021	jjkothari@gmail.com
Fruits & Veges	Jittu Horticulture PLC	Jan Prins	Tikurwuha	+251 116189313/14	info@jittuhorticulture.com
Roses	Joe Flowers PLC	Wondirad Firdu	Holeta	+251 112372016	joeflowersplc@gmail.com
Roses, veges, herbs	Joytech PLC	Jagdish Eknath	Debre Zeit	+251 122370877	jagdish@joytechplc.com
Cut Flowers	Karuturi Farm/Ethiopia meadows	Anil Tumu	Holeta	+251 11 6632437/39	eth.meadows@gmail.com
Roses	KAF Flowers	Baker Elkadi	Holeta	+251 913 202 460	baker-elkadi@yahoo.com
Cut Flowers	Klaver Flowers PLC	Danny Koppes	Hawassa	+251 110916581769	klaverflowers@gmail.com
Roses	Lafto Roses PLC	Gerard van der Deiji	Sebata	+251 115541485/83	pm@laftoros.com
Roses	Linssen Rose	Peter Linssen	Addis Alem	+251 11 3205668	linssenroseset@ethionet.et
Fruits, Veges	Luna Fruits PLC	Tesfalidet Hagos	Koka	+251 116627894	lunaexport@ethionet.et
Cut Flowers	Maranque Plants PLC	Marc Driessen	Merti	+251 22 1190750	md@maranqueplants.com
Veges, sum. flowers	Marginpar Ethiopia PLC	Andrians Vanrol	Holeta	+251 116547005	marginpar@ethionet.et
Roses	Metrolux Flowers	Akiko Siyum	Holeta	+251 114669273	export.mtx@ethionet.et
Roses	Minaye Flowers PLC	Yidnekachew Ayele	Debre Zeit	+251 113728666/67	minaye@ethionet.et
Summer Flowers	Mullo Farm PLC/ Derba PLC	William Koerts	Chancho	+251 116553910	office@derbaflowers.com
Roses	Oromia Wonders	Navale Kodaje	Holeta	+251 112372378	mekdesoromia@gmail.com

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