

May - June 2023

THE LEADING FLORICULTURAL JOURNAL IN THE REGION

FLORICULTURE

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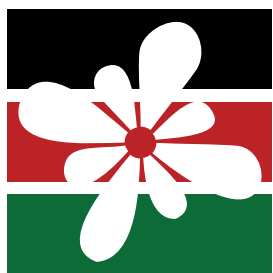
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**Red Lands Roses:
'Women as Captains
of the Flower Industry'**



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Contents

- 6. Red Lands Roses
- 12. IFTEX 2023
- 18. Recognizing & Preventing Phytotoxicity
- 20. Selecting the Best Organic Fertilizer
- 26. Bloomingdale Roses
- 32. "Let's Peak Together"
- 34. Amiran Kenya
- 40. The Carbon Footprint Discussion



Cover photo: Courtesy Redlands Roses

The Leading Floriculture Magazine

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Floriculture is published six times a year and circulated to personnel in the Horticulture Industry, foreign missions and Kenyan Embassies abroad, Flower Growers, Exporters and Consumers, extension officers in the Ministry of Agriculture and counties, research offices and suppliers of agricultural inputs in Kenya.

Connivance or Complicity

At one time in life there comes a moment when one feels that one's silence in regards to a pertinent issue may be considered 'silence of guilt'. When the living conditions of people whose lives are intricately linked to yours is so absurd, so unjust, so oppressive and agonizing you are forced to ask yourself whether keeping silent on what your eyes see is tantamount to connivance if not complicity, with those who cause and perpetuate that very undesirable situation.

At first you may convince yourself that leaving the situation unchanged is the only way to remain close to the people you care for. After all, alleviating people's suffering is Gospel-like, experiencing their pain in your own flesh is Christ-like. But there comes a time that your only option is to help end the perpetuation of the hell-like situation. It is excruciating experience that takes away one's breath, and you decide to speak out no matter the outcome.

The never-ending challenge of taxation- the worst floriculture tragedy of silence – is one such situation. We broke the silence before. What right did we have to do so?

Floriculture Magazine draws its sustenance from this sector. The connections with the sector date back to the magazine genesis. It is the sector we derive advertisement from, thus ensuring a symbiotic covenant with the sector. It is to the flower sector that the magazine has pledged its whole existence to.

We entirely consecrate ourselves to your greater good. Your goods and your suffering shall be ours too. We will lend our voice to you and make common sense with every member and the happiest of our days will be the ones we shall be able to give our life for you."



In this issue, we continue with our crusade of "stop overtaxing the goose that lays the golden eggs." We have matured enough and believe it is time we vigorously supported our flower sector. In view of the emerging global competition and subsequent challenges for the horticultural sector.

Tax is a silent tragedy killing our flower sector. We hope this will serve as an open-air pulpit for their cry.

Enjoy your reading.

Masila Kanyingi
Editor



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Botrytis Management in Roses

Botrytis in Roses is caused by fungus *Botrytis cinerea* (*B. cinerea*). It is also called gray mould, Bud and flower blight, Cane Canker, and Blossom blight among common names. Botrytis is a major disease of roses and is classified as a pathogen of high risk by FRAC.

Host Crops

B. cinerea has a list of alternate host crops including vegetables, ornamentals, bulbs and corns, fruits, and saprophyte on senescing and dead plant tissue. It is worthwhile understanding the host plant families to enable a management program that factors the impact these species bring to your ornamentals.

Symptoms

B. cinerea develops during periods of cool and wet weather. It appears with characteristic gray, fuzzy sporulation showing leaf lesions in a zonate pattern. The flower petals develop tiny flecks of discoloration. Stems dieback from cutting wounds appear as tan to brown cankers starting at bases of petioles of blighted leaves.

Affected flowers may not open and may become covered with grayish brown fungal growth. Damage is often associated with wounds where flowers have been cut or the plants have been pruned. These infections often result in cane blight. On cuttings taken for propagation, the fungus may enter through cutting wounds and kill young twigs or the entire cutting.

Visual symptoms

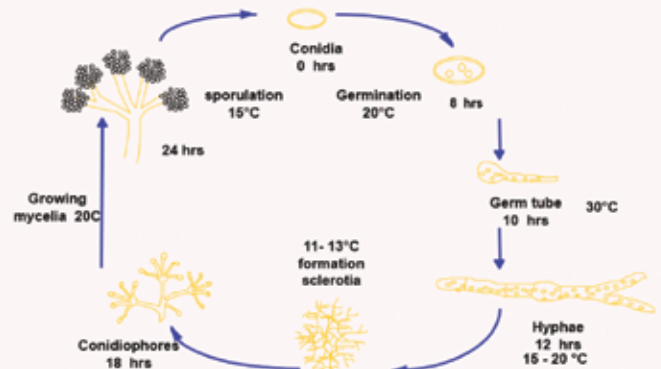


Critical factors for the disease to Thrive

- There are disease spores freely present in the air.
- Presence of Free water, high RH and high variation in temperature.
- High planting densities with little ventilation in the greenhouse.
- Susceptible varieties.

Botrytis in ornamental plants is further aggravated by nutrient imbalances of the plant, and presence of decomposing material from prunings and harvests. Insect pest damage such as thrips and the presence of old and damaged leaves expose the crop to disease infection. During and after harvesting, poor handling, manipulation and refrigeration of the cut flower further make them vulnerable to the disease.

Lifecycle of *B.cinerea* and optimal temperature for disease Development



Management of *Botrytis cinerea*

Botrytis is a difficult disease to manage in ornamentals due to many factors as indicated below:

- Different species of botrytis do occur
- Conidia can survive at varying temperatures
- Can infect all plant parts
- Has a wide host range
- Can persist on dead plant material
- Occurrence of resistant strains
- Fungicides often are ineffective after few applications and,
- Varying types of greenhouse material

Cultural control

Cultural practices as key to successful management of the disease. Practice a high level of hygiene by removing all infected plant materials. Farms should provide good ventilation and air circulation in greenhouses/farms to reduce moisture condensation. It is advisable to use of correct greenhouse material such as ultra violet light absorbing vinyl film to cover the greenhouses to allow for solar cleaning. Use protective fungicidal sprays and maintain sanitation in grading areas and storage coolers.

Chemical Control

It is advisable to spray protective fungicides to plants that have been recently cut or pruned (wounded). Roses that are to be stored should be dipped or sprayed prior to entering storage. Fungicides should be rotated between different classes because fungicide resistance has been documented with this pathogen.

Use of fungicide spray such as Teldor (FRAC 17) will provide to most needed control of the disease but should be used in a rotated program with chemicals such as Scala (FRAC 9) and others as recommended by FRAC.

By Edwin Kiptarus

Go to Market Manager Flowers & Cereals, Bayer East Africa.



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Red Lands Roses: 'Women as Captains of the Flower Industry'

Thirty-five Kilometers Northeast of Nairobi, Kenya, Red Lands Roses overlooks the Ruiru municipality. The magnificent 27-hectare rose farm, standing at an altitude of 2,000 metres above sea level, was established in 1996 by Isabelle Spindler, a woman pioneer in Kenyan floriculture.



Isabelle Spindler, General Manager Redlands Roses



Redlands Team: From back; Isabelle Spindler, Esther King'ora, Scolastica Gikonyo, Irene Nkatha and Disha Copreaux

Red Lands Roses is set up on non-arable land.

The roses are grown hydroponically, in hi-tech plastic greenhouses. Through this system, a good portion of the irrigation water and nutrients are recycled,

and leaching into the underground water streams is entirely prevented. The planting substrate used is murrum, a red rocky material which is dug out from the farm environs.

Red Lands Roses seeks out the most innovative rose

varieties; takes them through rigorous testing at the farm and with their clients before officially launching them. Red Lands Roses has become a trailblazer in the industry, specializing in growing and exporting luxury and premium garden and spray roses. The farm is reputed globally by their customers as one of the leading growers of spray roses, offering quality, and novelty to their customers, describing them as 'Haute Couture Roses'.

Addressing one of the major global trends vis-à-vis the 'carbon footprint,' Red Lands Roses is amongst the leaders in Kenya, having committed to a vision of zero carbon emissions by 2026. Red Lands Roses achieved Carbon Neutral status since 2020 by mapping out their carbon

footprint by measuring both emissions and sequestrations. The sequestrations are achieved by replacing part of the power need with solar energy and also planting trees. The small negative carbon balance is offset through the purchase of carbon credits in an independent forestry project. By 2026, the Red Lands Roses team believes that they will manage their carbon footprint entirely through their own business activities.



Disha Copreaux: Chief Executive Officer

Highlighting the general challenges faced by the Flower sub-sector countrywide, Red Lands Roses notably acknowledged the tough times in the industry especially on freight capacity and costs (especially to Asia and Australia), the increase in cost of fertilizer and diesel in 2022, the imposing of various taxes, all of which challenge the competitiveness of Kenyan grown flowers

Staff Welfare

Red Lands Roses currently provides a livelihood to around 700 employees. Apart from wages, the company provides its employees with multiple additional benefits such as:

- 1) Free day care for children of ages 0-3 years old,
- (2) School fee subsidies
- (3) Medical care for the entire family.
- (4) Bicycles to commute to and from work
- (5) Pre-natal care and regular health screenings for breast and cervical cancer for women employees.

Empowering Women

Women employees constitute a significant proportion of the workforce in the Kenyan floriculture sector. Red Lands Roses has recognized this and has set up staff welfare initiatives and an environment and culture in which the company's women employees can thrive.

Apart from staff welfare initiatives which have been carefully thought through to allow female employees to work with peace

To page 8



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"There is no limit to what we, as women, can accomplish." Michelle Obama

Brinks Security Services Congratulates
Redlands for embracing equity through empowering women in the workplace.

From page 7

of mind, Red Lands Roses has in place the Gender Committee & Training programs to sensitize on the negative impacts of Female Genital Mutilation (FGM)

The Gender Committee was formed to provide a safe and confidential space to air domestic grievances. The Committee listens without judgement and guides the employee to seek the right counselling support. The impact of this committee is that it serves as an alternative and impartial support group.

Red Lands Roses actively supports and collaborates with the Maasai Namaiyana community in Kajiado. The matriarchs of the latter are invited to the farm a couple of times a year to offer training to all employees against Female Genital Mutilation (FGM). Outside of these trainings, Red Lands Roses ensures that they contribute to the education of girls within the Maasai community by purchasing decorative maasai bead necklaces to gift to customers.

The company is synonymous with fairness and equity, according to the women who work there. The company focuses on what would be referred to as DE&I (Diversity, equity and inclusion). This has created a greater consistency and equity across job titles, hiring and elevating women into new roles. 55% of the employees are women, and have been hired in positions at all levels of the company.

The company's focus to "attract, develop, retain and celebrate women has created a powerful platform

for women to embrace new opportunities and to grow professionally on a global scale.

Some of the women the *Floriculture Magazine* managed to have a chat with were excited to be a part of the 55%, priding themselves with being associated with Red Lands Roses. *Excerpts:*



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Isabelle Spindler: General Manager: Fondly referred to as *Mama* by her colleagues, is the founder of Red Lands Roses and a woman pioneer in the sector. When she started Red Lands Roses in 1996, her idea was to produce roses with a touch of elegance, superb vase life and to have a direct supply to importers, florists, wholesalers, and decorators in each country, a strategy she has implemented over the years.

To page 11

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Interplant Roses would like to take a moment to acknowledge and congratulate Redlands Roses for their exceptional work in promoting equity in the workplace for women on their farms. We have been fortunate enough to work alongside Redlands Roses for years, and we are thrilled to see their commitment to creating a positive and inclusive work environment.

We believe that every employee deserves equal opportunities and respect in the workplace, and we are proud to see Redlands Roses leading the way in this regard. Their dedication to promoting gender equity is truly commendable, and we are grateful to have such a wonderful partner in the floriculture industry.

At Interplant Roses, we share Redlands Roses' commitment to creating a safe, inclusive, and diverse workplace for all our employees. We believe that working together towards a common goal is the best way to achieve success, and we are proud to be part of a community of growers that values equity and respect for all.



Congratulations,

Redlands Roses,

on your outstanding achievements. We look forward to continuing our partnership and working together towards a more equitable and just future for all.

We are proud to be associated with you.

From page 8

Isabelle took over a patriarchal industry by storm, injecting new life into it and making women to be valued in the flower industry.



She is indeed a force to reckon with in the sector. She enjoys working with the staff at the farm. She is focused on excellence in delivery to clients without harming the environment, as well as the team that makes it happen. She would be called a natural leader.

Disha Copreaux: Chief Executive Officer: An individual who exemplifies the cliché that youth are the leaders of tomorrow. Disha is a jovial, confident and eloquent lady, and the perfect example of 'What a man can do, so can a woman'. Her confidence and staunch stance for women empowerment is undoubtedly something that cannot go unnoticed.



She joined Red Lands Roses as the Chief Executive Officer in 2021. Sitting at the helm of decision making, she is proud to ensure that senior management is accessible to all employees in the farm and information is transparent, which makes for a positive and constructive work environment.

Disha is focused on ensuring that Red Lands Roses remains one of the best farms to work for in Kenya and continue the legacy of offering high quality premium roses to customers with good customer service.

Irene Nkatha: Sales and Marketing Manager:

You meet Irene, and you meet the link between Red Lands Roses and the export market. She is a woman with the finest know-how on marketing. Passionate about what she does and also a sales expert.



Irene has worked in Red Lands Roses for over ten years. She says that her best days at work are when production is at its peak and all clients' orders are fulfilled. She also loves it when she brings in a new client into the Red Lands Roses family which she explains as the major reason why she must attend global trade fairs.

Scolastica Gikonyo: Post Harvest Manager:

Going about her duties, Scola, as she is mostly referred to, portrays a woman with a passion for her work. As she moves to and from rows within the Red Lands Roses pack house, she looks sharp, confident and with a mastery of what she does. Checking through all the processes of post-harvest to ensure an awesome final product for the end consumer. Scolastica has worked in Red Lands Roses



for over 20 years.

She loves the great team of professionals she works with. She is set for the prize- to maintain the brand of Red lands Roses with a touch of unique and high quality roses whose standards go above any other globally.

Esther King'ora: Assistant Production

Manager: In a Red Lands Roses branded dustcoat, Esther treks through the rows on the farm under large greenhouses noticeably bending and raising at intervals, giving instructions to employees. You wouldn't wonder what she's doing because she's hands-on, doing selective bending, checking pests, diseases and what have you. With knowledge of more than 15 years in flower farms and more specifically over six years at Red Lands Roses greenhouses, Esther is indeed a knowledge hub by herself.



She points out challenges in her field of work as pests, diseases, weather, sick-offs and logistics. Esther enjoys her work mostly when every rose that she takes care of gives a perfect end product.

Conclusion

There are numerous women at Red Lands Roses, too many to actually describe, but the afore-mentioned women are just a sample size to paint an authentic picture of the route Red Lands Roses has taken to empower, enhance and encourage women participation in the running of the flower industry which has traditionally been male-dominated. This was simply breaking the bias, appreciating 'matriarchy' but more so giving a chance to women in the floriculture industry.

IFTEX 2023: An Expo Beyond the Obvious...

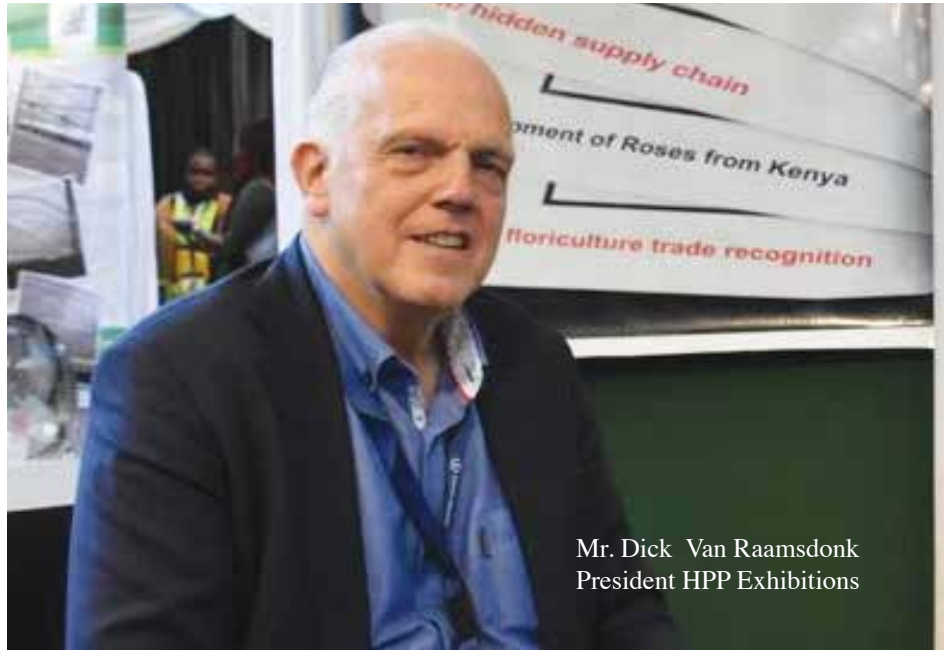
‘When The World Convenes Under One Roof’

Trade fairs, conferences, business events, economic forums and exhibitions can be defined in a unified manner as sophisticated platforms for conducting business on a national and international scale. It is more than just a marketing tool as the entire marketplace is at your fingertips.

The 10th edition of the International Flower Trade Exhibition (IFTEX) is here! The show which is characterized by glamour from the beautiful bouquets displayed on the Vast Dinesh and Mahesh Chandaria Auditorium, showcasing the rich varieties of the world's floral Prowess, is one of the biggest Expos in Africa.

IFTEX provides opportunities to engage with current and prospective buyers. It doesn't matter whether you're marketing a product or selling your new variety, an in-person presentation and short question based conversation afterwards can help you to close the deal quickly versus an email sharing the latest sales promo. The three day Expo is a professionally organized floricultural show that aims to invite the right set of buyers and provide local floriculturists to learn more about the international floriculture market and help them expand their scale of operations. This event also aims to exploit Kenya's potential as one of the largest markets for fresh cut flowers.

IFTEX provides growers with an excellent opportunity to assess opinions from buyers and determine market potential, conduct research and evaluate competition, develop commercial structures by identifying new agents and distributors, and initiating joint ventures and project partnerships. The



Mr. Dick Van Raamsdonk
President HPP Exhibitions

expo provides a unique networking platform to both local and foreign participants. It helps in promotion, marketing and publicity efforts of participating companies. It leads to joint ventures, tie-ups and also helps bring in investment in the country.

As a reliable media for exchange of information, IFTEX is being globally recognized as the apt medium for doing flower business today. The current economic slowdown is the ideal time for the industry to showcase its presence on exhibition floor as the industry is very much in a position to reinforce its tenacity, strength and collaborative nature. Infact, in

tough market conditions, it becomes all the more imperative for all growers to show greater visibility, strong fundamentals and continuation of businesses.



The platform is ideal for growers to nurture the trust and confidence across the supply chain.

IFTEX has gotten an acceptance in its role in promoting trade in the sector. This was assured the moment buyers accepted to come in. It was not the same anymore and may never be the same as seen in previous exhibitions.

What has followed is a number of buyers increasing every year. The advent has seen a new development to further enhance the productivity of IFTEX; suppliers into the industry have joined in and are increasing by year. The step has catapulted IFTEX to the new levels of excellence. It can now be counted among the major flower trade shows in the world. Among other benefits, IFTEX provides growers and buyers a face to face meeting point, which is seen as a perfect cost effective means for achieving trade objectives.

IFTEX is a great event for interaction among Kenyan flower growers and international flower buyers. Buyers from all across the world gather in this event every year to purchase the superb quality of the flowers for which this exhibition is famous for.

There are several new growers on board this year, as well as brokers who export flowers from growers that do not export directly. For buyers a great opportunity to source Kenyan grown flowers from even more growers. One of the goals this year has been to attract more (smaller) growers to exhibit in the fair. It can be said that this goal has been achieved.

The list of international flower buyers is good, promising another successful edition of IFTEX with lots of business being done.

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Why IFTEX ?

If done right, IFTEX Creates Lasting Impressions.

IFTEX showcases a wide variety of options for attendees and businesses to engage and interact with each other. With a well-designed trade show booth that draws attendees' attention, a few promotional items, a contest opportunity with giveaways and sales collateral, you will have a well-rounded booth experience that leaves an impression with a prospective customer for months. Consider having attendees enter a drawing by submitting a business card completing an action on social media. These types of promotions serve dual purposes: increasing engagement and capturing potential contact information as well.

IFTEX is Incredible Face-To-Face Marketing Event

When it comes to influencing a decision, nothing beats with face-to-face interaction. IFTEX provides opportunities to engage with current buyers and prospective. It doesn't matter whether you're marketing a product or selling your new variety, an in-person presentation and short question based conversation

To page 14

Main Story

From page 13

afterwards can help you to close the deal quickly versus an email sharing the latest sales promo. This makes pre-IFTEX planning key to your success. If you've got an employee who is a natural at "turning on the charm" or one who is great at relationship selling, should be a no brainer on them being a part of the sales team. The cost of bringing them to IFTEX show event could pay for itself within hours of the show starting.

IFTEX Lead Generation Potential

When it comes to benefits, this is one of the biggest. IFTEX has massive followings and attendance. Each attendee of IFTEX is a potential lead waiting to be captured. Having QR codes linked to social media accounts or lead generation pages, asking for contact information during a presentation and getting their business cards are all great ways to get fresh leads in your sales pipeline. Make it clear to them that you'll be contacting them after the show. Make sure to follow up with the candidates most likely to buy while the event is still fresh in their mind.

IFTEX Target Audiences Result In Direct Sales Opportunities

IFTEX has a specific market or niche it focuses on. By exhibiting at IFTEX, the



Exhibitors at a previous IFTEX

odds are very high that you'll have exposure to an audience that is likely to have an interest in your product or services and are ready to buy. Always have something to showcase at IFTEX. It doesn't matter if you only bring your old varieties or the newest, the opportunity to generate sales shouldn't be lost because you didn't have something. Don't miss out on that sale!

IFTEX is Cost-Effective Networking and Advertising

Designing the trade show booth, renting space on the trade show floor, traveling to the show and from the show, paying for lodging and meals can seem like a steep price tag for a single marketing event. If you've done the pre-show marketing work leading up to the show, the potential that IFTEX offers your business can far exceed the investment.

Though you might have a larger initial investment to showcase your business at IFTEX than other advertising or networking methods, the cost to convert a prospect

into a sale is often much lower than other alternatives. With proper research and planning, IFTEX is one of the most cost-effective sources of leads and sales possible.

IFTEX Level the Marketing Field

One of the favorite benefits to IFTEX is the low cost barrier to get involved. From locally owned small scale growers to multinational growers, everyone has access to the same attendees at IFTEX. It's almost as simple as paying for your exhibit location space, designing your trade show display booth, promoting your business leading up to IFTEX and interacting with the audience during the show. Even a relatively unknown grower can generate large numbers of sales and leads through IFTEX. Certainly this is possible via other marketing channels, but few are as easy to execute as IFTEX can be.

IFTEX offers big benefits to businesses of any size. By combining exposure to a large number of potential leads with the ability to interact personally, IFTEX offers an experience that other forms of marketing cannot.





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The chief guest listening to one of the exhibitors when he visited their stand

Government Set to make Ethiopia Attractive to horticulture, Floriculture investment

In its endeavor to make Ethiopia attractive to horticulture and floriculture investment globally, the government has made various policy amendments and offered attractive incentives, the Ministry of Agriculture said. Agriculture Minister Girma Amenete (PhD) stressed the government's readiness to attract potential businesses in the horticulture sector.

Taking into account the role of horticulture and floriculture growers in export and the labor-intensive nature of the businesses, the government has given due emphasis to lure anchor companies.

As to him, Ethiopia's conducive climate condition and the good policies of the government are the factors for the success registered in the export of fruit and vegetable to the international market.

Girma indicated that public-private partnership is much needed to attract more direct investment in the horticulture and floriculture sectors and stimulate economic growth. He called on the private sector to avail quality products with reasonable prices in a bid to enhance Ethiopia's competitiveness in the global market.

All stakeholders, particularly the Ministry of Agriculture and other government agencies Ethiopia will work relentlessly to address

the policy and administrative related challenges investors have faced during the operation phase.

The minister further highlighted that the lifestyle changes in the global community and the shift towards fruit and vegetables is another good opportunity that the country should capture.

The increased product and productivity of the horticulture and floriculture sub-

Government pledges to address obstacles of horticulture sector

After a four-year hiatus, the eighth edition of HortiFlora Expo was held for three days in March.

The Minister of Agriculture, Girma Amente, commented on the start of one of the largest horticultural expos on the continent by saying that issues made by horticulture investors will be resolved because the industry is very beneficial to the nation.

After coffee, the industry ranks among

sectors is of great significance to ensure food security and improve the livelihood of citizens. The area also has immense potential to create jobs for the youth and supplement Ethiopia's forex reserves.

According to the Board Chair of the Ethiopian Horticulture Producers and Exporters Association (EHPA), an organizer of the expo, Nega Mequanint, the show is quite important to lure more investment to Ethiopia and also for concluding business deals.

the top sources of hard money. The sector generated USD 414 million from exports in the first seven months of the 2022-23 budget year, according to Girma, "which is a very large achievement."

The fruit and vegetable subsector is now expanding, and it has received significant attention in our next agriculture and rural development policy, which is anticipated to be approved before the end of the fiscal year, he continued.



Recognizing and Preventing Phytotoxicity



Nora Catlin

Sometimes products used for pest or disease management can end up injuring the crops they are meant to help. Learn how to recognize and prevent phytotoxicity from pesticide applications.

Phytotoxicity can be caused by things like pesticides, air pollutants, fertilizers, or other chemicals. This Alert will focus on phytotoxicity that is a result of fungicide, insecticide, or miticide application.

Phytotoxicity caused by other products applied to or near your crops, such as herbicides, plant growth regulators, fertilizers, and sanitizing products, will not be discussed here.

Phytotoxicity from pesticide applications can occur as a result of direct application as a foliar spray or drench or as a result of off-target application or drift. Phytotoxicity can also sometimes occur from pesticide application to stressed plants or in certain environmental conditions.

How to recognize phytotoxicity from pesticide application:

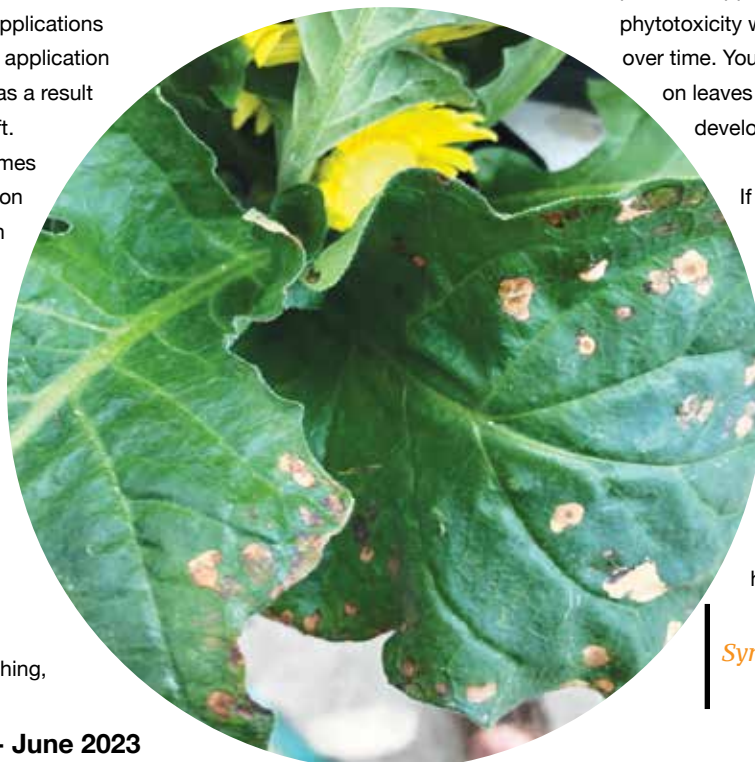
- Phytotoxicity can appear as a variety of symptoms ranging from subtle to obvious, and can include necrotic flecks, spots or patches, leaf edge burn, discoloration, chlorosis, bleaching,

distorted growth, leaf or flower drop, stunt, or even death of growing points.

- Sometimes you may see necrotic spotting or flecking in patterns showing where the spray application had accumulated and sometimes you may see a pattern where upper leaves protected lower or interior leaves from the spray application.
- You may see patterns within the crop or greenhouse to provide clues if the

symptoms you are seeing are due to phytotoxicity from a pesticide application. Examples include: phytotoxicity from foliar sprays tend to be observed more along bench and row edges; sensitive crops underneath treated hanging baskets can be injured; and sensitive crops next to treated crops can show injury where there was pesticide drift or accidental misapplication.

- Injury from phytotoxicity occurs over a short time period, related to the timing of pesticide application. Unlike a disease, phytotoxicity will not spread or develop over time. You will typically see symptoms on leaves of the same age or stage of development.



If a bud or unexpanded leaf is injured the injury may take time to become evident, since the distortion will only be seen once the leaf develops. Any injury will remain and the tissue will not recover, however in most cases the plant will outgrow the injury with the new growth appearing healthy.

Symptoms of phytotoxicity

How you can prevent phytotoxicity and what to consider:

- Always make sure to carefully read the pesticide label for all information about plant safety and application instructions, including information about what plants on which the product is or is not safe to use, mixing instructions, recommendations about the timing of applications and environmental conditions for application. Follow the label instructions and precautions.

- When you are using a new product or tank mix on a crop, especially if not listed on the label, you should test a few plants first before treating your whole crop. Be



Phytotoxicity from a pesticide application: calibrachoa flower discoloration

plant to phytotoxicity from pesticide applications. Avoid applying pesticides during extreme conditions and in conditions that prolong the drying of the treated leaves after application. The addition of spreaders, stickers, or wetting agents may cause or contribute to phytotoxicity. As mentioned above, read labels carefully.

- If you see symptoms of what you think might be phytotoxicity from a pesticide application, review the history of the crop as well as adjacent crops for clues. Consider what applications were made, when applications were made, what the conditions during and after application were, what products were used, and when symptoms were observed.



Phytotoxicity from a pesticide application: distorted leaves and new growth on New Guinea impatiens

sure to leave a few plants of the same crop untreated for comparison (plants that are otherwise treated the same; are the same cultivar, size, and plant date). After treating the plants, hold and monitor for at least 7-10 days for symptoms of phytotoxicity. However, be aware that some sensitive plants may not show injury after a single application but may after repeated or multiple applications.

- Know that it is possible for differences in cultivar response, meaning that one cultivar could be more sensitive to a product while other cultivars may be less sensitive.
- Also know that in some cases

phytotoxicity might occur only on certain plant tissue or stages of development. For example, a pesticide may cause injury on flower or poinsettia bracts but not leaves, or plants may be sensitive soon after transplant but not after they are well rooted. Young plants and new growth tend to be more sensitive to injury.

- Stresses such as drought and environmental conditions (extreme temperatures, humidity, light) can predispose a



Phytotoxicity from a pesticide application: leaf discoloration on annual vinca

Selecting the Best Organic Fertilizer

By Robert Pavlis

People love to go organic, which is a good thing. Unfortunately, the information about organic fertilizers is not always correct or complete. Here are some real important things you need to know about organic fertilizer.

Why Do We Fertilize?

We don't feed plants! We replace missing nutrients in soil. The nutrient that is most

nitrogen" since the nitrogen is tied up in large molecules like proteins. These contain nitrogen, but plants can't absorb them through roots.

Why is this important?

Lets say you add some fish fertilizer to plants and the NPK is 5-1-1. You think you added 5% nitrogen, but if half of this is organic nitrogen then you only added 2.5%

plant available nitrogen (the PAN is 2.5%). Knowing the PAN value is important so that you add the right amount of nitrogen.

Nitrogen Availability Over Time

Let's continue with the fish fertilizer example. 2.5% of the nitrogen is available to plants right away, but what about the other 2.5%? What happens to it? Organic compounds continue to decompose and eventually the nitrogen will become ammonium or nitrate and be plant available. Organic fertilizers decompose at different rates and therefore release nitrogen at different rates.

The amount of nitrogen available to your plants depends on the type of organic fertilizer you select and on the environmental conditions. If you select the wrong one, or apply it at the wrong time, your plants will starve.

PAN Over Time

The following chart shows the cumulative PAN over time. The "start PAN" shows the amount of nitrogen that is available to plants

as soon as the fertilizer is applied. Synthetic fertilizer is available right away. Fish emulsion and blood meal decompose quickly and are plant available within a couple of months. Compost and vermicompost has almost no nitrogen available at the time of application and they decompose very slowly over many years to release nitrogen.

The above information is assembled from various sources including University of Massachusetts, Ohio State University and University of California. The numbers are approximate and depend on the exact contents of the fertilizer, time of application, temperature and soil characteristics. Plant meals like alfalfa meal and cotton meal behave similar to compost.

Why is some nitrogen never released, even after 5 years?

At a certain point the remaining nitrogen is absorbed by microbes as quickly as it is released, where it forms new organic nitrogen. It never becomes plant available.

Is Organic Fertilizer a Slow Feed?

Organic fertilizer is commonly recommended as a better choice because it makes nutrients available to plants slowly over a long period of time. It is clear from the table that not all organic fertilizers are equally slow in their release pattern. In this regard fish emulsion and blood meal behave more like synthetic fertilizer. They don't release nutrients quite as fast as synthetic fertilizer but they are much faster than composts.

Composts are better for long term addition of nutrients, but they are a poor choice in situations where you need to add nutrients right away to solve a nutrient deficiency.

Other Nutrients

Other nutrients, with the exception of potassium, behave much like nitrogen since these nutrients are also part of large molecules.

often missing is nitrogen, so I will use nitrogen as the main example in this post, but most of the contents also apply to the other nutrients.

Plant Available Nitrogen (PAN)

Gardeners deal with two groups of nitrogen compounds; those available to plants and those that are not available to plants. Scientists use the term "PAN" to describe the amount of Plant Available Nitrogen, which consist mostly of ammonium and nitrate.

Non-available nitrogen is also called "organic

[To page 22](#)

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Crop Nutrition

From page 20

Potassium is different since it does not get incorporated into organic compounds. It remains as free ions that are easily released once cells are disrupted. For this reason a lot of potassium can leach out of compost piles and never reach targeted plants. The amount that remains in organic fertilizer is readily available to plants.

Organic Fertilizers Improve Soil

One of the main benefits of using organic fertilizer is that it helps build better soil. It holds water, increases the amount of air, improves structure through aggregation and increases CEC, the soils ability to hold on to nutrients. But this only happens if the organic fertilizer adds significant amounts of organic matter (OM). The amount of OM is higher in solid fertilizers than liquid forms. On a pound for pound basis, dry fertilizers will improve soil more than liquid forms.

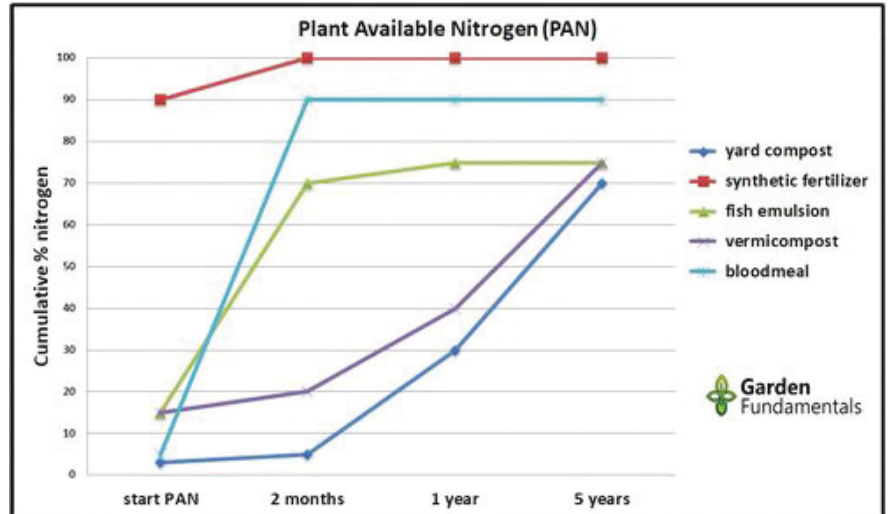
Consider these examples.

Compost tea contains almost no OM – it's mostly water. It does little to improve soil quality.

Organic Fertilizers			
	Nutrient release	Organic matter	Overall quality
Manure, fresh	Moderate	Moderate	Moderate
Yard compost	Slow	High	High
Vermicompost	Slow	High	High
Fish emulsion	Fast	Low	Low
Kelp, liquid	Fast	Low	Low
Blood meal	Fast	Low	Low
Plant meals	Slow	High	High

In another post I compared the amount of OM added using compost and Neptune fish fertilizer. Compost adds 9.7 kg per sq meter (1.2 sq yard) while fish fertilizer adds 0.014 kg or 700 times less. They are both organic but only one improves soil.

Moisture content is also important. Products like alfalfa meal and cotton meal contain only about 10% water compared to bagged compost which has 50% water and fresh



cow manure which is 85% water. Plant meals add more OM on a weight basis, however, these meals tend to be more expensive, so on a cost basis compost adds more OM than plant meals. Homemade compost is even more cost effective.

If you can't hold the fertilizer in your hand and feel solid material, it contains very

little organic matter.

Fertilizers, such as fish emulsion, compost tea and blood meal, contain almost no organic matter and have limited impact on soil quality.

Organic Fertilizer Improves Microbe Populations

Microbes need two basic things to

prosper: nutrients and a carbon source. Organic fertilizers can provide both. Microbes use the same nutrients as plants so any time you are providing plant nutrients you are also feeding microbes. The organic matter is the carbon source.

Which organic fertilizer is best for building your soil microbe biome? The one that provides both nutrients and OM, in larger quantities.

As discussed above, some organic fertilizer provides nutrients for only a short period of time. This does cause a microbe population explosion, but once the nutrient source is used up, the population crashes which is not great for microbe health. Some organic fertilizer provides nutrients, but almost no OM. Without a carbon source microbes don't grow well.

The best organic fertilizer for building microbe populations provides nutrients over a long term and provides a high level of OM.

The Best Organic Fertilizer

There are a number of factors to consider. Always use local sources – they are much better for the environment because they don't have to be trucked as far. Cost is an important factor. Don't buy expensive specialty products. When it comes to OM, quantity can be more important than quality.

The absolute best option is homemade compost. It is local, cheap and of high quality. Check out "Composting Science for Gardeners" and learn how to make great compost using many different methods. Other good options include commercial compost, vermicompost and plant meals. The worst options usually come in a liquid form because they tend to have low nutrient levels that are released quickly and they have almost no organic matter.

8

Tips to Increase the Success rate of Propagation Through Cuttings

By James Tababa

Stem cutting is a propagation technique that involves taking a section of a plant stem and rooting it to create a new plant. Stem cutting is considered a better propagation method when compared to using seeds or other techniques due to various reasons.

One significant advantage of using stem cuttings is its faster propagation rate. Stem cuttings can develop into mature plants much quicker since they already have mature stems and leaves, compared to plants propagated from seeds, which can take a considerable amount of time to germinate and grow. Stem cuttings also help maintain the exact genetic traits of the parent plant, which is important for replicating desirable characteristics such as flower color, fruit quality, disease resistance, and more.

Another advantage of stem cutting is its consistent and repeatable process, which can be easily scaled up for commercial plant production. Stem-cutting propagation also produces high-quality plants with desirable characteristics, making it a

reliable and efficient propagation method.

However, the success of stem-cutting propagation is dependent on several factors, including the plant species, season, and techniques used. Here are some techniques and tips to increase the success rate of propagation through cuttings.

Choose healthy cuttings

Choosing healthy cuttings is a crucial step in successful plant propagation. To ensure healthy growth and development, select cuttings from plants that are actively growing with strong, healthy stems and leaves. Avoid plants that show signs of disease or pests, as these can spread to the new cuttings. When propagating plants through stem cuttings, preventing disease is crucial for success. One way to prevent disease is to use clean and sharp tools to take the cuttings, as dirty or dull tools can spread disease and cause damage to the plant. It is also important to monitor the cuttings for signs of disease such as wilting, discoloration, or fungal growth, and to remove any infected cuttings immediately to prevent the spread of disease.

Choose a stem with nodes

Nodes are the areas on a plant stem where leaves, buds, and branches emerge.

When propagating plants through stem cuttings, nodes are important because they are the points where new roots and shoots will form. Choosing a stem with nodes increases the chances of successful propagation, as the new roots and shoots will emerge from these areas. Without nodes, the cutting may not be able to develop roots and will not grow into a new plant. Therefore, when selecting a stem for propagation, it is important to choose a healthy stem with several to increase the chances of successful propagation and ensure healthy growth and development of the new plant.

To page 24



Propagation Unit ata rosebud, Uganda

Propagation

From page 23

Make a clean cut

Using a sharp knife for stem cutting and propagation has several advantages over using a dull knife. A sharp knife can make clean, precise cuts that promote healthy growth and reduce the risk of infection. Clean cuts are less likely to damage the stem tissue and create open wounds that can be more susceptible to disease. Using a dull knife may crush or tear the stem, which can further increase the risk of infection. Sharp knives also allow for proper water absorption and enable the cutting to form roots and new growth more easily, resulting in healthier and more successful propagation.

Use the correct soil potting media

The ideal potting medium for stem cuttings will depend on the specific plant species being propagated, as different plants may have different requirements for rooting and growth. However, there are some general characteristics that a good potting medium for stem cuttings should have.

The potting medium should be well-draining to avoid waterlogging and root rot, but also able to retain moisture to provide adequate

hydration to the cuttings. A good potting mix can be a balance of organic matter such as peat moss, compost or coconut coir, and inorganic matter like perlite, vermiculite or sand. This will create a mixture that is able to hold moisture while still allowing excess water to drain away from the cuttings. The potting medium should also be free of diseases and pathogens that could harm the cuttings, so using sterilized soil or pasteurized media is advisable

Maintain moisture

Maintaining moisture is crucial in stem cutting because it helps prevent the

common method is to cover the cuttings with a plastic bag or wrap, which will create a humid environment and prevent excess moisture loss. However, it is important to ensure that the plastic does not touch the leaves or stem of the cuttings, as this can cause them to rot.

Another way to maintain moisture is to mist the cuttings regularly. This will add moisture to the air around the cuttings and help prevent them from drying out. However, it is important to avoid over-watering, as excessive moisture can also lead to rot and disease.



A flower farm: Plants trasplated after propagation



cuttings from drying out and dying before they can establish roots. Without adequate moisture, the cuttings may wilt, lose their turgidity, and be unable to absorb nutrients, which can ultimately lead to their death.

To maintain moisture, it is important to keep the cuttings in a humid environment, which will help prevent them from losing moisture through transpiration. One

It is also essential to keep the soil or rooting medium moist but not waterlogged, as this can drown the cuttings and prevent root development. Watering the cuttings with a watering can or spray bottle can help ensure the soil or rooting medium remains moist.

Remove unnecessary leaves and flower buds

Removing unnecessary leaves and buds from stem cuttings is an important step in propagation that can help increase the chances of successful rooting. By removing excess leaves and buds, the cutting is able

to put more energy into root development rather than trying to sustain the growth of unnecessary plant parts. This increases the chances of successful rooting and overall growth of the plant.

Leaves and buds expel water, which can lead to excessive water loss and drying out of the cutting. By removing some of the leaves and buds, the cutting is able to maintain a better balance of moisture and reduce the risk of drying out.

Moreover, removing leaves and buds can help prevent the growth of fungi and other pathogens. When leaves and buds are left on the cutting, they create a moist environment that is conducive to the growth of fungi and other microorganisms. By removing these parts, the cutting is less likely to become infected with diseases.

Use rooting hormone

Using a rooting hormone can significantly increase the chances of successful stem-cutting propagation. Rooting hormones contain synthetic or natural plant hormones,

of auxin hormone to encourage root development. This increases the chances of successful rooting and overall growth of the plant. Rooting hormone is especially helpful for cuttings that are difficult to propagate or have a low success rate, as it provides an extra boost to their natural rooting process. The most common rooting hormones include indole-3-butyric acid (IBA), naphthaleneacetic acid (NAA), and 1-naphthylacetic acid (NAA).

Avoid transplanting too soon

Avoiding transplanting too soon is important in stem-cutting propagation because it can disrupt the development of new roots and cause the cutting to die. When a stem cutting is first planted, it must use all of its energy to grow new roots and establish itself in the potting medium.



A visitor taking notes as explained by the staff of Rosebud

the ground. This will ensure that the cutting is strong enough to withstand the shock of transplanting and has the best chance of thriving in its new environment.

Proper propagation technique is essential in successful propagation through stem cutting because it can directly impact the survival and growth of the new plant. When a stem cutting is taken from a parent plant, it is essentially a detached piece of the plant that no longer has access to the nutrients and water it needs to survive. Therefore, it relies on the stored reserves in its own tissues to develop new roots and, eventually, new shoots and leaves.



Propagated rose crop

primarily auxins, that promote root growth and development in cuttings. Auxins are naturally occurring plant hormones that play a vital role in root development and plant growth. When a plant is injured or wounded, the concentration of auxin hormone increases at the site of injury, promoting cell division and root formation. Rooting hormone works in a similar way by providing the cutting with a concentrated dose

Transplanting too soon can cause the cutting to lose some of its root mass and require it to start the process over again, stunting its growth and reducing its chances of survival. It is important to wait until the cutting has developed a healthy root system and has begun to show signs of new growth before transplanting it to a larger pot or into

Proper techniques can help the likelihood of successful propagation. Choosing healthy cuttings, selecting a stem with nodes, making clean cuts, using the correct soil potting media, maintaining moisture, and removing unnecessary leaves and flower buds are all essential techniques to increase the success rate of propagation through cuttings.



At Bloomingle Dale, Flowers are Simply the Language of Every Emotion...

By Mary Mwendu Mbithi

At the slopes of Mt. Kenya in the exquisite town of Timau in Meru County, Bloomingle Dale Roses Limited blooms. A family's entrepreneurial spirit that began over six decades ago birthed Bloomingle Dale Roses. - A widely recognized brand on the auction market and an addition to the Bobmil Group conglomerate.

The flower farm which stands at an altitude of 2,450 metres above sea level with a very close proximity to the equator is also strategically placed in a fertile land with rich soils and sunshine in abundance - an ideal condition for growth of ornamentals. The farm which spans to forty-one hectares chunk of land is a world-class producer of T-hybrid Premium Roses.

During the establishment of this farm, in this somewhat parched area of Timau, water was a scarce resource. Therefore, dams were first constructed to cater for the farm needs. Afterwards, the farm was launched on 13th May, 2013, with a workforce of about 200 employees at that time and the first roses were planted

The first phase of the farm began on a twenty-one hectare piece of land and sustained the first twelve rose varieties. Later on an expansion of the farm from 2016 and the years thereafter pushed the farm to the current forty-one hectares which sustains 26 rose varieties with a touch of signature big heads, long stems, bi-colours and premium quality. Over the years, the farm has improvised other methods of enhancing water collection which incorporates 100% rainwater harvesting.

Right under the master stewardship of the management, who spearhead the farm project, Bloomingle Dale flourished to become a leading grower and exporter of premium roses and is largely known for its quality and consistency in international markets and Auction platforms.

Clearly highlighted on their mission, Bloomingle Dale aspires to be a recognized premier supplier of quality roses without compromising on their values, environment, and social responsibility. Their vision is to be world-class in the flower industry and be admired for their partnership, performance, and professionalism.



Mr. Sunil Chaudhari
General Manager
Bloomingle Dale Roses



Bloomingdale Roses runs a tight, logistical process that brings the freshly cut roses directly to the airport by refrigerated trucks. The Cargo Center in Nairobi looks after a neat and direct hand over to the right aircraft ensuring a fast and efficient transfer. The farm's certificates meet the standards of international agreements for sustainability.

Production processes

Choice of Variety, Trials and propagation

At Bloomingdale, trials are done on different varieties of roses for a period of time after which they analyze their productivity, pests and diseases resistance

as well as market demand. The farm obtains the right of planting a particular variety from the breeder. From there, propagation is done with a lot of emphasis on quality.

Planting and harvesting

After propagation, the plants are delivered by the propagator for planting. Thereafter, the young plants are planted on the already prepared greenhouses for commercial purposes.

Pest and disease control

The farm has well-trained pest and diseases scouts on location who help in identification of pests and diseases. The greenhouse



attendants have also been trained on pests and diseases and act as the first line of defense. The farm has developed pest and disease threshold levels which guide on appropriate actions to be taken. There is also a dedicated spray team on board which applies chemicals on the flowers where the levels exceed the threshold. The farm has also incorporated various IPM strategies.

Grading and value addition

It is at the grading hall where processing and value addition of the flowers takes place and the final quality control point. In the pack house, there are cold rooms for holding. There are also the chillers and air conditioned trucks for transporting the flowers to the airport, thus a strict adherence to the cold chain.

Corporate Social Responsibilities (CSR) programme

Bloomingdale has put in place a detailed CSR programme which encompasses improving the social economic standards of the surrounding communities within the region. These include; donating towards 'African Girl Foundation', developing roads and drainages as well as supporting social amenities like schools and health facilities in the area.

Waste management

Bloomingdale has a waste management plan implemented within the farm. Waste is segregated and stored appropriately at designated places awaiting official disposal in accordance

To page 28



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From page 27

with the waste management plan. The farm has contracted a third-party hazardous waste collection and incineration company accredited by NEMA to handle all our hazardous waste produced in the farm. Farmyard waste is shredded and composted for use as compost manure. Liquid waste goes through deactivation pits for recycling.

Challenges

The general flower sub-sector's bottlenecks as outlined by Bloomingdale are; unsteady markets, increased costs of production, high prices for farm inputs like fertilizers, logistics especially during rainy weather, high freight charges, reduced freight capacity and levies from both national and county governments.



Floriculture team during an interview with Mr . Sunil at the Bloomingdale farm in Timau

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Human Resource

Bloomingdale's main operations are growing, packaging and exporting freshly cut flowers. Bloomingdale has a dedicated team which takes care of all the facets of rose production and value addition. The farm employs 545 employees who tend to the flowers from planting stage up to export level.

Future Prospects

Under the able leadership of the General Manager Mr. Sunil Chaudhari, Bloomingdale envisions the expansion of the farm by 10 hectares. There are also plans to diversify into growing summer flowers in the near future. In order to remain competitive, the farm also strategizes on sustainability and a



further reduction on carbon footprint by shifting from the electricity powered irrigation to solar powered. Bloomingdale reiterates the words of Antoine de Saint-Exupery-a French poet and a writer ; 'perfection is achieved, not when there is nothing more to add, but when there is nothing left to take away.'

6 Reasons Why Sustainability is not in Tension with Business Growth

What does it take for a company to grow?

For a company to scale at a successful rate and establish itself as a player in the market, what is needed? It has traditionally been offered that the main elements for success are a clear vision, market access, a good product, a sound and scalable business model, high productivity, customer centricity, and great performance measurements. Unfortunately, when thinking about growth, sustainability might not be the most immediate element businesses think about.

Often, decision makers go in the opposite direction and associate sustainable development with a slower, or unviable, model. However, this mindset couldn't be further from the truth, as in reality "businesses are leaving profit on the table by failing to invest in sustainability" confirms D. Blaseby, Chief Growth Officer at Wunderman Thompson Commerce and Technology UK.

What is obvious is that, for decades now, many countries have found a way to prosper through economic growth. This rapid development, however, has often been at the expense of the environment and society with dire consequences



such as pollution, deforestation, and Greenhouse Gas (GHG) emissions that have contributed to the acceleration of climate change. From a societal point of view, traditional economic growth has been "elevating" the standard of living for some, creating a wider middle class, but has also negatively affected society with increased social and financial inequality for others. For this reason, it is important to see economic growth as imperatively sustainable, so that it doesn't only benefit with short term gains but takes longer-term consequences into account as well.

Deloitte's 2023 CxO Sustainability Report confirms that while the vast majority of C-level executives surveyed agree that "the world can achieve global economic growth while also reaching climate change goals, there continues to be a gap between actions and impact as organizations are slower to implement the needle-moving actions that embed sustainability into the core of their strategies, operations, and cultures".

What is sustainable growth?

Forbes defines sustainable growth as "growth that is repeatable, ethical, and responsible to, and for, current and future communities. And it's key to the long-term

success of any business". Moreover, the International Growth Centre (IGC) says the vision behind sustainable growth is that "the tension between promoting growth and preserving the environment should not be zero-sum".

A sustainable approach to growth provides economic opportunities for the less wealthy and prepares low-income and lower-middle-income countries while limiting their current contribution to it. In essence, sustainable growth is the smartest way ahead to stay resilient and future-forward.

How does sustainability affect and boost business growth?

Business growth and environmental sustainability are not in tension but are actually a great recipe for success.

Here are six reasons why.

1. Sustainability as an advantage:

Turning non-sustainable solutions, strategies, and facilities into sustainable ones involves the deconstruction of the current systems and mentality. Sustainability can be an advantage for anyone that wishes to engage with it, and it can foster new opportunities through risk mitigation of incoming regulations on carbon, or through new revenue streams within circular supply chains.

2. Technology and innovation:

Traditionally, economic growth has been mostly powered by fossil fuels, but new technologies are the answer to improve business development while minimizing the impact on the environment. These days, companies must be agile to change and jump-start their technological advancement, considering the available climate technology that can be used for and by their business.

Examples of these innovations can be electric power, innovative materials, compostable parts, and decarbonization technology such as alternative fuels, solar panels, wind technology and more. Once the most polluting parts of a business are identified, these cutting-edge solutions can be implemented into production operations, and supply chains by making their logistics more sustainable.

To page 30

Management

From page 29

3. Profitability: Choosing to be sustainable can mean making a profitable choice. From capitalizing with a great reverse logistics strategy, to choosing to invest in sustainability and integrate it into the main business strategy. Designing, founding, and developing green solutions can be the key to business growth and prosperity in the long run. Whether it's a supporting industry player like a solar panel production company - that creates climate positive products and ensures environmental, social, and corporate governance (ESG) issues are taken care of (e.g., working rights) - or a company looking to make existing offers more sustainable through implementing climate impact reduced supply chains, sustainability can bring opportunities for new revenue streams for companies.

4. Customer-backing: strong transparency on actions towards sustainability can benefit brand's reputation, and help their businesses grow and flourish. This is particularly true with the new generation of consumers. In 2023, several companies feel the "pressure to act on climate change from many different stakeholder groups—from the board/management to customers to employees" confirms Deloitte's latest Sustainability Report. In the case of online retail, according to Wunderman Thompson, "65% of global consumers said ethics and morals play an important role in their online purchase decision making" and in their buying "43% of consumers claim to have opted for environmentally friendly delivery options". These statistics are an indication that there is a move towards favoring business that meaningfully engage with sustainability over polluting ones, and that consumers, armed with the instant power of social media, can determine if a business can grow or struggle to survive.

5. Investments: Growth of a business lays in being able to invest towards a long-term future and not only chasing after immediate gains. According to Forbes, "profitable growers are more committed to environmental, social, and governance (ESG) objectives". Deloitte's report affirms that about 75% of global C-level executives claim, "their organizations have increased their sustainability investments

over the past year" showing the desire of businesses to increase their engagement with sustainability, and to do so as part of their core strategy. Moreover, the transparency of such investments is key. It paints a realistic picture of a business' efforts, enhancing their growth trajectory.

6. Growth-fueled partnerships: Real change can be achieved through sustainability partnerships. Particularly for logistic supply chains, sustainable solutions that improve business and growth, can be achieved through partnerships. These partnerships can be established among players of the same industry, or even different entities such as non-profits, governments, and logistics providers that all share the same values.

Sustainability and growth of business

Without a doubt, for long term, resilient, and sustained growth all businesses should embrace sustainability.



For businesses to grow in this new landscape, there is no more time for inaction or backwards strategies.

Companies that don't act now to implement more sustainable growth into their business models will experience higher consequences and costs later. Research from Deloitte has found that in the long run "climate inaction could cost the global economy 178 trillion USD over the next 50 years. On the other hand, it could gain 43 trillion USD over the same period by rapidly accelerating the transition to net-zero".

As highlighted by Katundu Imasiku, PhD, MBA and BEng. specializing in Renewable Energy,

accomplishing this balance requires "financing business opportunities that enhance economic growth and create more employment opportunities, while emphasizing the reinforcement of environmental protection."

As D. Blaseby's explains, "taking a sustainable approach to commerce is good for business, good for consumers, and good for the planet". This approach requires buy-in from all of the business' stakeholders, and thus, engaging the board is therefore necessary, making sure the leadership of a business is involved, finds adequate balance between sustainability and growth, and ensures it is embedded within their respective organizations in all daily activities from all levels (taking the decisions out of the board room solely).

In addition to current C-level leaders, this change must also be embraced by those that are entering the market and require growth the most - a generation of future business owners that is looking for ways to grow fast and make their mark. This demographic is already attuned to the importance of sustainable growth, according to Stanford's Social Innovation Review, "88% of business school students think that learning about social and environmental issues in business is now a priority".

Finally, given the environmental weight that transportation and logistics is having on the planet all businesses should find a logistics partner that shares their mindset and enables integrated solutions that are sustainable across the entirety of supply chains. As Anders Woggsborg, Commercial Sustainability Manager at Maersk notes, "there is a growing interest from businesses looking to take concrete action to decarbonize their supply chains and explore how logistics providers can be a true partner in helping them meet their sustainability goals."

Overall, research and customer behavior show that to achieve healthy long-term business growth, a mix of sustainability and resilience can help companies with their development ambitions, regardless of the size or maturity that they start from.

SOURCE: <https://www.maersk.com>

The Ministry of Agriculture in Ethiopia has called up on all concerned stakeholders to pay a due Emphasis on the fruit and vegetable sector development.

In his opening speech of 8th Edition of HortiFlora expo, MoA Minister Girma Amente (PhD) said that: "It is not a matter of choice for us rather a question of necessity to contribute for boom in the fruit and vegetable export growth of the country for a number of factors."

Ethiopia has not benefitted in a meaningful manner from the opportunities for export in the fruit and vegetable sub-sector, he added. The minister, therefore, said that it is also possible to unlock the ample opportunities in the fruit and vegetable segment of the industry.

"Ethiopia can benefit a lot from the lifestyle changes in the world's main dish which is shifting more to fruit and vegetables, and the population growth everywhere on the globe is another opportunity." As to him, Ethiopia needs to have a turn around as a country to meaningfully benefit from the fruit and vegetable segment of the industry just by considering the concurrent food technologies.

It was learnt that the sector will help ensure food sovereignty and improve the livelihood of fellow citizens via creating millions of jobs for the youngsters, and also substantially increasing the

hard currency gains and the like. All stakeholders of the sector particularly investors, Ministry of Agriculture and government of Ethiopia will continue to work relentlessly to address the policy and administrative related challenges and will create a better doing business climate by working closely with the private sector, he stressed.

"We take our hats off for the voracious appetite and choice to further source flowers, fruits, vegetables and herbs from Ethiopia. Indeed, we also comprehend that the visit should help exhibitors to assess for themselves the commercially attractive opportunities that Ethiopia offers to buyers and investors" Ethiopian Horticulture Producers and Exporters Association

representative also called investors to invest in the fruit and

vegetable sector and to play their role in the sector.

The 8th HortiFlora expo is opened to visitors for three days starting yesterday and it is being conducted under the theme: "Ensuring Sustainability". The 8th HortiFlora expo is hosted by Ethiopian Horticulture Producers and Exporters Association.



The chief guest listening to one of the exhibitors when he visited their stand

The expo helps to share experience with other investors, introduce their products for their customers, and create market linkage, said exhibitors of the expo. And around 90 domestic and foreign companies are taking part in the expo. It is to be recalled that during the last 7 months, Ethiopia has earned over 400 million USD from the cluster farms horticulture exports.

Bishoftu on "Communication

and supervision skill" which was designed to be highly interactive and to teach supervisors at lower and middle level about their

roles and responsibilities, professional behavior at work, communicating effectively, team building, and resolving disputes at the workplace for improving leadership performance. The program will be implemented for the coming three years including mentorship at the selected horticulture farms by the lead of EHPEA.

A Leadership Training Held in Bishoftu and Holeta

A leadership program that aims to create empowered women leaders and decision makers in the horticulture farms for second round training held in Bishoftu and Holeta cluster.

The training delivered for more than 50 women comprised from 12 farms from Holeta, Sebeta, Koka and



“Let’s Peak Together”

In this series of columns, Royal FloraHolland gives the floor to directors and managers of Royal FloraHolland. In this column, they give the floor to COO Leendert-Jan Plaisier.

Let’s peak together

“The peak is coming soon. An important period for growers and buyers and therefore for us. We are well prepared to handle the expected increase in supply. We are aware that whatever measures we take will affect buyers, growers, transporters, and/or employees. Measures have pros, but sometimes cons too. We naturally try to minimize the latter. If we can’t quite manage that, I ask for your understanding in advance. After all, we all agreed that doing nothing is not an option either. In the run-up to the peak, we discussed this with growers and buyers. That was the basis for the peak plan that is now in place.”

“The slogan of our peak campaign puts it very aptly: Let’s peak together. The peak plan requires flexibility from all of us, and together we can make it a success. Different delivery dynamics, especially for plant buyers, may require adjusting working methods and affect the planning of transporters. Growers face a reduction in the maximum percentage of clock pre-sales. Employees are flexible in terms of working hours, leave days, or deployment as peak help. On the other hand, we can give more certainty about end times, and deliver flowers as often as possible ‘as usual’: within standard time. I think it is good to review our peak plan. That way, I hope to clear up some misunderstandings.”

Parts of the peak plan

“Everything we do is geared toward providing predictable logistics services despite the shortage of staff and busy times. Predictable logistics is in the interest of the strength of the clock. Reliable logistics and certainty about end times ensure that buying via the clock remains

attractive, and thus, pricing is optimal. The peak plan consists of the components:

- Staff recruitment, flexible deployment, and deployment of peak helpers
- Making sufficient logistics supplies available
- Extended opening hours (direct flows)
- Early auction days
- Accelerated start for flowers, the final push for plants)
- Higher volumes per auction with the adjusted percentage of clock pre-sales (from April 3 to June)

“As the peak period is nearing, we are increasingly able to estimate when it will be busy. Although the outside temperature and number of sun hours still cause uncertainty, as does the ratio of clock sales to direct sales. We also now know better how our staffing is doing. Of course, we do what we can to round out that staffing. Besides numerous local initiatives, our online recruitment campaign is almost impossible to miss, is a success, but is not yet generating the number of new colleagues we need.”

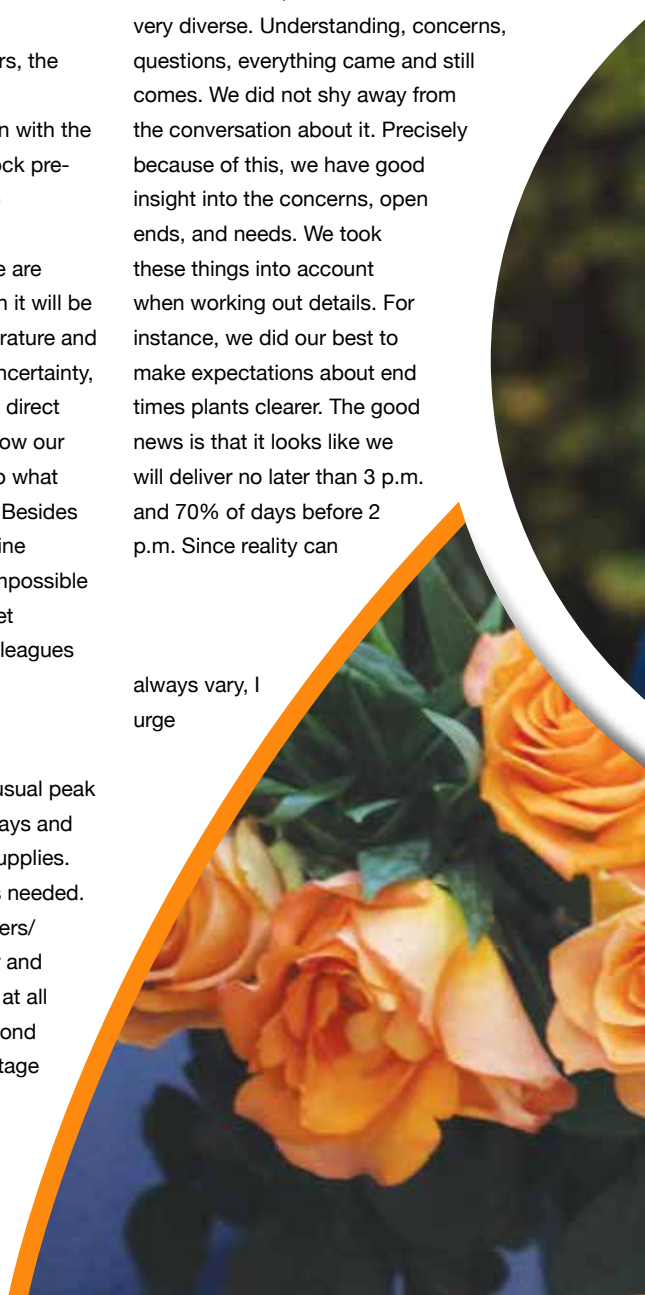
Flexible measures

“You will recognize in the list the usual peak measures such as early auction days and availability of sufficient logistics supplies. These measures help, but more is needed. Introducing accelerated start flowers/end-of-season plants in Aalsmeer and Naaldwijk and coarser auctioning at all export locations allows us to respond flexibly to peak demand and shortage of staff. Per week and for bulkier auctions per day, we consider to what extent we should deploy

these measures. This allows us to move with the course of the peak. We also want to maintain some of this flexibility after the peak. That’s why we continue to accelerate the start of flowers and the final push of plants after the peak if needed.”

“In recent months, as expected and understandable, reactions have been very diverse. Understanding, concerns, questions, everything came and still comes. We did not shy away from the conversation about it. Precisely because of this, we have good insight into the concerns, open ends, and needs. We took these things into account when working out details. For instance, we did our best to make expectations about end times plants clearer. The good news is that it looks like we will deliver no later than 3 p.m. and 70% of days before 2 p.m. Since reality can

always vary, I urge



everyone to check the forecasts weekly on our website. From March 29, we are publishing the expected starting times of plants for Aalsmeer and Naaldwijk, a wish of many buyers.”

Auctioneer monitors optimal pricing

“With regard to higher volumes per auction, I would like to emphasize the

role of the auctioneer once again. They determine how we use this instrument per day and per product group, the speed of lifting, and distinguish between niche and bulk products. Small transactions remain possible, including through KVV. We will lower the maximum percentage of clock pre-sales from 50 to 45%. Below the line, this relatively minor intervention in the auction process makes a significant contribution to

better and predictable end times. Naturally, we will keep a close eye on optimal product pricing.”

Outstretched hand

“For many, the peak period start with Valentine’s Day and International Women’s Day. We go through those busy times just fine. But from April 3 onwards, we certainly cannot avoid the busyness. The peak plan really has to prove itself from then



Mr. Leendert-Jan Plaisier



“You will recognize in the list the usual peak measures such as early auction days and availability of sufficient logistics supplies. These measures help, but more is needed. Introducing accelerated start flowers/ end-of-season plants in Aalsmeer and Naaldwijk and coarser auctioning at all export locations allows us to respond flexibly to peak demand and shortage of staff.

on, I realize. Along the way, we adjust where necessary, and of course, a final evaluation will follow. In between, we keep you informed. For now, I want to wish everyone success.

For many, it has to be done in the spring, a beautiful but also stressful time. Above all, let’s keep an eye on each other and stay in contact. Above all, see our peak plan as an outstretched hand to make the best of it together. If you have any questions, suggestions, or concerns, please approach our contact center or your logistics contact at your location. Sometimes more is possible than you think. After all: peak periods are done together.”

Source: Royal FloraHolland

Company Profile



Our Knowledge, Your Success
A Balton CP Company

Six Decade Journey in the Agriculture Sector

By Mary Mwende Mbithi

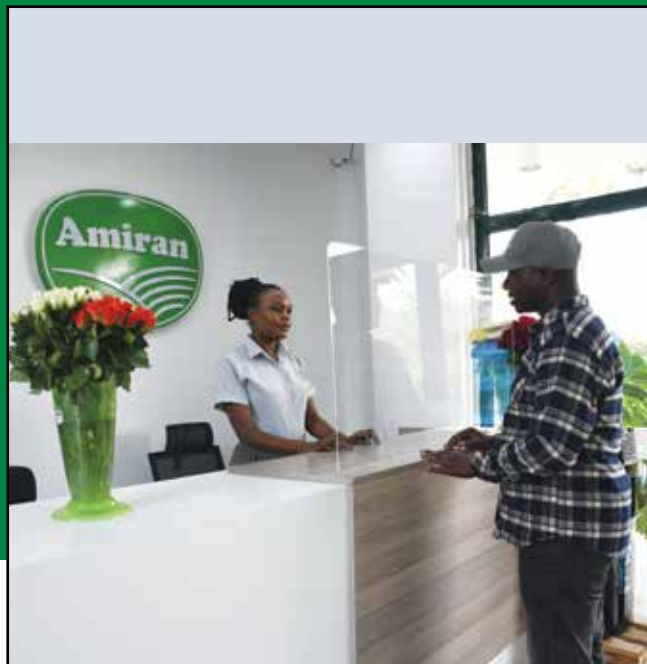
A story is told of Amiran Kenya Limited; a company that first opened its doors in the country in 1963. Amiran Kenya, an associate of the United Kingdom based Balton CP group of companies, spread throughout Africa and Israel providing complete solutions in all of its fields of expertise.

Their first shop in Kenya was situated in Agip house in Nairobi's Central Business District. Later on, they moved their offices to Lungalunga Road, in Nairobi. Presently, Amiran operates along Old Airport North Road. The company has been instrumental in empowering and transforming farmers and the agricultural sector at large in both Kenya and her neighboring countries offering only top quality products supplied by internationally recognized global market leaders in their respective fields.

In late 1980, the company introduced the first modern green house and up to date the company has erected and maintained more than 85% of greenhouse hectareage, an equivalent of 3000 Ha out of the total 3500 Ha.

Since its inception, Amiran Kenya has been providing farmers with field proven top quality agricultural inputs to help reduce farming risks through crop protection, crop improvement and crop enhancement to ensure the crops grown reach their full potential.

Amiran offers much more than just products and services. The company's agricultural basket of products includes chemicals,



Amiran's superb customer service

fertilizers and seeds; large and small scale agro-projects using state of the art technology powering modern irrigation systems, climate control and water measuring technologies. Apart from trading with multinational pesticides, Amiran Kenya played a pivotal role in the introduction of high quality off patent pesticides that meet international standards, guaranteeing the farmers better efficacy and cost effectiveness.

With more than 50 years of working with farmers, Amiran has grown from single line operations to a pioneer one stop shop allowing it the depth in terms of experience, knowledge, professional agronomists, tools and products in high tech irrigation systems, Amiran's seeds and greenhouse solutions

Amiran's Agro Division Department takes the lead in Crop protection

The agro division holds the leading position in crop protection and offers farmers the most comprehensive range of protection products crop solutions in the region.

Amiran products are developed and produced in line with the international standards. Whether insecticide, herbicides, seeds, seed treatment, fertilizers or fungicides, post-harvest treatments, they are precisely tested and undergo extensive research to ensure they fit in the local environment and cropping conditions and before commercialization.

To page 36



Our Knowledge, Your Success
A member of the Balton CP Group

Haifa Fe

The new Benchmark

High performance 6% Fe EDDHA Chelated micronutrient fertilizer

Haifa Fe is a trusted brand of Iron Chelated micronutrient fertilizer produced from Haifa Italy srl, Viale masini, arguable one of the most respected producers of micronutrients fertilizers for over two decades.

Amiran Kenya as your most trusted strategic partner, we are proud to present to the Floriculture industry; **Haifa Fe**, the most biologically effective iron chelates that can be used to prevent and /or treat iron chlorosis in the most difficult agronomic situations and in all iron sensitive crops.

The Benefits of Haifa Fe

- 1 **Spectrum of crops:** can be used in a wide range of crops including Lawns and turf grass, ornamentals, cut flowers, indoor and outdoor container plants, orchards and vegetables grown in either soil or hydroponic production systems.
- 2 **Formulation:** The brownish non dusting solid micro granules packed in a well labelled and indelibly marked 20 Kg pack does not only guarantee the integrity of the product but also makes the product much easier and safe to use.
- 3 **Fe EDDHA Isomers:** Haifa Fe is fully Fe EDDHA chelated micronutrient fertilizer with a well balance of Ortho –Ortho and Ortho – para isomers to secure both short term and long term iron demands of the crop.
- 4 **pH:** **Haifa Fe** has great performance in all acidic, neural and calcareous growing conditions, exhibiting a wide range of pH (4- 10)
- 5 **Solubility:** Haifa Fe dissolves rapidly and completely in water to form a true aqueous solution that can be readily absorbed by the root hairs.
- 6 **Crop Response:** Haifa Fe from the basket of Haifa Micronutrients formulas has been carefully designed to give the most rapid effect even in situations of severe iron deficiencies at low concentration.



Usage recommendation in Flowers

Fertigation – 10-15 g/M3 which will translate to 2 -3 kg/1000L Stock solution (Tank A- Calcium Nitrate)

Address

Old Airport North Rd - Embakasi
P.O. Box 30327-00100, Nairobi

Contact Us

www.baltoncp.com/amirankenya
AmiranK
amiran_kenya



0800 720720

Call us on our toll free number

Company Profile

From page 34

They are registered for use in horticulture, cereals, cotton, coffee, sugarcane and all other agricultural sectors. In horticulture, Amiran offers a wide range of crop protection products and extensive technical information and backup to ensure successful crop management. Amiran is committed to a long term strategy of ensuring the farming community is well informed on proper use or crop protection products.

Sourced from trusted world class leaders in the industry, Amiran's Agro-Division Products are based

its farmers with field proven top quality agricultural inputs which help reduce farming risks through crop protection.

In addition, the division sales a wide array of fertilizers and bio stimulants. These help in crop enhancement to ensure the crops grown reach their full potential.

Amiran's Post-Harvest going Beyond the Obvious

Different types of flowers have different challenges/requirements. The way you handle a rose (sensitive to bacteria) is not the



Dam : Amiran's irrigation works

establish the individual farm's situation and recommend the best solution and an in-depth scientific research working hand in hand with researchers in the agricultural research organizations.

of the end to end cold supply chain requirement. With the same technology, farmers can store flowers for holiday peaks as well as ability to sell the stocks by maintaining rolling stocks of flowers during a 30 days' storage period.

Amiran prides herself for

Amiran understands that postharvest systems play a critical role in enhancing the competitiveness of cut flowers which by nature are highly perishable. The



Amiran Team during a previous IFTEX

on Amiran's three pillars towards successful agribusiness projects; technologies, knowledge and high quality inputs and are packaged for both small and large scale growers.

Geared towards making farming a profitable and enjoyable experience, Amiran's Agro-Division Department is providing

same way you handle carnations which is sensitive to Ethylene. Keeping this in mind, Amiran is working with farmers by providing tailor-made solutions to post-harvest challenges. This has been done by carrying out training for grower/farm staff to emphasize the collective responsibility and their contribution to the ultimate product quality, audits to

being the first to have brought to the market a method and solution enabling the effective extended storage of cut flowers. The main idea of this successful mission is to allow the industry to transport flowers by sea rather than by air. The extended Storage method in addition to the cooling and refrigeration hardware effectively takes care

company's goal is to help its farmers in delivering the produce to the final consumer as good as harvesting. With good post-harvest techniques Amiran farmers are earning trust at the market level as a quality producer and supplier, improving sales due to growing demand for excellent produce

To page 40



Congratulations! Amiran Kenya on your 60 Years of Excellence.

Royal Associates Insurance Brokers Limited is thrilled to extend our warmest congratulations to you on reaching a remarkable milestone; your 60th Anniversary as our esteemed client. This momentous occasion is a testament to the enduring partnership we have forged and the trust you have bestowed in our insurance brokerage throughout the years that we have associated.

As an insurance broker, our primary goal is to provide peace of mind and protect what matters most to our clients. Your unwavering loyalty and continued faith in our services have been the cornerstone of our success. We are humbled and honored to have been by your side for nearly a decade, serving as your trusted advisors and safeguarding your assets and other interests.

Over the years, we have witnessed your resilience, foresight, and commitment to securing a better future for yourself and your loved ones. Your dedication to reviewing your coverage, exploring new policies, and adapting to changing circumstances has been truly inspiring. Together, we have navigated through various challenges and opportunities, always with the aim of ensuring that you have the most comprehensive and tailored insurance solutions in place.

As we celebrate this significant milestone, we want to express our deepest gratitude for the trust you have bestowed upon us. It is an honor and privilege to serve as your insurance broker, assisting you in navigating the complex and circuitous world of insurance and providing you with tailored coverage solutions. Your dedication to understanding your needs, seeking our guidance, and trusting us to protect your valuable assets has been remarkable. Your loyalty has been the driving force behind our continuous efforts to deliver exceptional service, personalized attention, and prompt claims assistance. It is clients like you who motivate us to strive for excellence every day.

On this joyous occasion, we reflect on the countless moments we have shared together, and the peace of mind we have provided. We

are immensely proud to have played a role in safeguarding your business, vehicles, and other valuable assets, ensuring that your dreams and aspirations remain protected throughout your journey.

Keep going and rise to an even higher level of excellence. Your excellence in Management has kept you at the very pinnacle of Administrative and Operational excellence. Keep it up and go even higher.

Once again, congratulations on reaching this extraordinary milestone. Your 60 years of loyalty and trust have touched our hearts, and we are grateful for the privilege of serving you. May this anniversary be a joyful reminder of the countless memories and achievements you have accumulated throughout the years.

Our dedicated team of professionals shall always be here to support you, providing exceptional service, prompt claims assistance, and ongoing policy reviews to ensure your coverage aligns with your evolving requirements.

Royal Associates Insurance Brokers Limited is one of the premiere Broking firms in Kenya and with presence in Rwanda; and with an extensive operational experience of over 10 years presence as a corporate body in the market. In Kenya we have a branch network in Mombasa, Machakos Nakuru and Head Office in Nairobi

Royal Associates is led by Mr. Paul Kasema, CEO and MD who has about 30 years' experience in the insurance industry and assisted by Ms. Lillian Kwimba, Executive Director also with about 30 years of insurance experience. The company has a staff base of about 30 members who are well qualified, articulate and well-grounded in insurance matters.

At Royal Associates Insurance Brokers Ltd, we believe in providing excellent value-added services to our clients. This relates to Insurance broking services for the whole spectrum of Insurance products, including but not limited to Motor, Marine, All general Insurance, Medical Insurance and life Insurance.

Our Vision:

We leverage on technology and provide unique insurance risk solutions. We are committed to becoming Africa's leading brokerage.

Our Mission:

We are dedicated to providing the best advice, and to delivering first class care and support, to ensure that our clients always realize first-class coverage.

Our Core Values

Passion: We love what we do and we are deeply passionate about it. We have fun doing it.

Trust: We will build meaningful win-win relationships with our staff and our partners. We will relate with people in a way that is authentic and true.

WOW Service: We will delight our customers by always listening to them and giving them the best advice, care, and support.

Learning & innovation: We are a learning organization. We will challenge prevailing assumptions and commit to the search and discovery of better and practical solutions.

Excellence: We are committed to being the best we can be. We will create better ways of doing things and set new standards in our industry.

Our Strength

Our strength lies in our people. Our team is a partnership of highly qualified and talented professionals who are committed to providing clients with expert advice, and to serving them with purpose and dedication.

God bless Amiran

You can count on us for All your Insurance Needs.

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Website: www.royalassociates.co.ke | Facebook: Royal Insurance Brokers Limited

Company profile

From page 36

and gaining respect among top floriculture markets as a professional flower exporter, all of which help the farmer improve themselves while playing a significant role in pushing the 'Kenyan Floriculture Industry brand a notch higher.

Amiran's Irrigation Division stretching far and Wide

Throughout its many years of operation, Amiran's Irrigation Division has handled some of the largest irrigation projects in the region. With years of expertise and representing global leaders in the field of irrigation, Amiran Irrigation, which has today become the most trusted name in irrigation in East Africa, offers tailor made solution to a wide array of irrigation needs.

This is the leading supplier of Irrigation systems to Kenya's flower farms, greenhouses and open field vegetable farms. The Division has expanded its operations to supplying irrigation systems to coffee and pineapple tree plantations, avocado, macadamia as well as large scale sugarcane farming.

The company has installed over 80% of the drip irrigation system in Kenya and adapted them to the needs of the farmers, from advanced computerized irrigation systems for large scale growers to gravity fed systems for small holder farmers. Complimenting all of these is a team of professional agronomists offering the best technical advice as well as innovative products aimed to achieve the

best possible yields. The modern drip irrigation ushered the introduction of soluble fertilizers and hydroponic production systems as an alternative to soil production system in most difficult agronomic situations.

Also, the Irrigation Division is able to offer an after sales service, which ensures that all system provided and sold to a client function for the long term giving maximum productivity and with minimum downtime. The Division offers training seminars to clients to ensure proper use and maintenance of their system.

Amiran's Greenhouse Division with State of Art Ultra-Modern Technologies

In 1989 Amiran introduced the first advanced large scale greenhouses, strong metal structures covered by an ever improving quality of plastic and constantly diversifying design to improve the yields of the farmers. Since then Amiran's Agro Projects Division has constructed more than 3500 hectares of greenhouses in Kenya that is around 85 percent of all greenhouses in the country that has become the world's leading flower producer.

When it comes to greenhouses, Amiran is one of the most trusted names in the Kenyan market. Amiran Kenya provides tailor made state-of-the-art ultra-modern greenhouses built to conform to new technologies and to suit the needs of the large scale grower which deals in a variety

of issues among them controlled and fixed greenhouse structures, Irrigation and control systems, greenhouse covers, controls of climatic conditions inside greenhouses, lighting systems and electrical equipment suitable for greenhouses, artificial climate control and using fans, heating systems, automatic aluminet screens, shade nets, special paints to name but a few.

The division offers a wide range of support products for large and small scale growers among them growing tables for nurseries, units which control and measure electrical conductivity and PH in water, dam lining equipment, shade nets and special insect nets, planting media and hydroponic troughs and trays.

They offer a wide range of greenhouse models varying in design and suitable to the needs of the farmers. Despite the many changes that the industry itself has undergone over the years, Amiran has continued to enjoy success in this niche market thanks to the unquestionable quality of the material used for the greenhouses, both in the steel metal structure and in the plastic covering material it offers.



Amiran Greenhouse installed at a farm

Conclusion

The company's strategy is to build relationships with suppliers, intermediaries and end users. From products and services to training and capacity building, the Amiran Kenya Ltd brand has become synonymous with the highest international standards of excellence. Through decades of partnership with Kenya's large and small-scale growers, Amiran has become a "one-stop shop" for all of Kenya's agricultural needs. While playing a significant role in bringing the Kenyan floriculture industry to its place as a global leader, Amiran has also remained focused on the needs of horticulture and cereal growers.



By Ton Haverkort

Thinking of starting a business, continued...

A business plan summarizes a project in a way that makes it understandable and attractive to potential financiers, business partners or employees. Keep in mind that the first review of a business plan is an elimination process, rather than a selection process. The challenge is to stimulate readers' curiosity and allow them to read the plan easily. The plan should clearly identify the problem the business is going to address, not only the solution. A good understanding of a particular problem or need will lead to success. First confirm the need, then build the product. Show you understand the problem and your solution will be more convincing. Next, be focussed.

Define the target market and provide a relevant description, with figures that show the size of the market. For readers to reach your conclusions, rather than their own, you need to guide them. It is not enough to describe facts as different readers may draw different conclusions. Show evidence of market acceptance, in particular with a new product or concept. Consumer behaviour is hard to predict. A common pitfall is to assume that customers will behave in the way you expect. Reality is different and common sense is the least accurate way to predict consumer behaviour.

Now describe the implementation approach. A good idea is unlikely to be unique. If it is good, expect a few other people to be thinking about it. If it's really good, you may find others

working on it already. The difference is in implementation. This is the real challenge. Even if the idea is not unique, you can make a difference in the way you carry it out. And that is what investors are looking for.

Be coherent with figures. There will never be accurate figures until the business is underway and even then, some pieces may be missing. It is always possible however to use comparisons, benchmarks, and reference points. Use them to estimate market size, market share and profit margins. Readers of your business plan will in the first instance not be able to double check the figures. They would rather look at the coherence of figures and check that they are consistent with the strategy.

Sometimes financiers provide a format for the business plan. If not, use an easy-to-read format. Remember that complicated documents are irritating and flat text with long paragraphs is boring. Think about the way people read a newspaper: they check the headlines first and focus on interesting stories. Readers of business plans are no different. Don't use small type and don't exceed 30 pages. If readers want more, they will ask. Remember that large files are also difficult to send by email, particularly in our situation in Ethiopia. Use simple style, common vocabulary and avoid abbreviations. Describe the

business in a way that makes it easy to understand.

Describe the need to be addressed and the market opportunity. Then explain how this need will be met.

Draw the organization chart as it should be at maturity, not to fit the current team. Highlight the team's capabilities and don't hesitate to identify gaps, showing awareness of future trends.

It is a mistake not to include a thorough analysis of potential competition. If there is no competition, that is not necessary a positive point. In fact, it may be very negative because there could be no market for the idea. Once competition has been covered, show the differentiating points. Avoid statements saying that your business will be "better" or "cheaper" or "faster". Marketing and sales are strategic components of any business. Focus on how this will be done and remember that the marketing approach may provide competitive advantage.

The most important determinant for success is the ability to execute. Implementation is the real differentiator. This includes all aspects, from the choice of technology to customer service. Always include a section analyzing the risks that may affect the business. An accurate assessment of risks will help convince investors that you are fully aware of the threats the business may face. It will also show that you are prepared and capable of responding to the challenge. This reminds us of the continued electricity problems we are facing for example. I have spoken to several business owners running different kinds of businesses and they are all seriously affected by it. Production time is reduced, production costs are rising, essential information and opportunities are missed, and a lot of business and money is lost. I wonder how many of us are prepared for such high infrastructural risks. Those who were and had earlier invested in alternative sources of energy are now at an advantage. Going back to our business plan, don't forget to state clearly what is expected from the target readers. The conclusion should include your funding request.

In conclusion:

Use the business plan as a communication tool.

Be simple, realistic and use common sense.

Don't look for funding but for raising interest.

Be ready to support any statement with detailed information.

Reference: Financial Times – Mastering Management 2.0 – Joe Tabet and Albert Angehrn

Ton Haverkort

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The Carbon Footprint Discussion: Are we Yet there?

By Mary Mwende Mbithi

The floriculture industry is a huge employer and one of the biggest foreign exchange earners for the Kenyan economy.

Nevertheless, the country continues to grapple with unprecedented shocks in the midst of an economic recovery from the ravages of covid-19. Right at the centre of an adversity, the industry is faced with high costs of input and freight charges not to mention the overall high cost of living.

All in all, doing better and getting a slot in the dynamic and fiercely competitive global market, going carbon neutral seems an option to redeem the industry, especially at a time when consumers are shifting their loyalty to brands that embrace sustainability, with a sense on environment as well as social justice issues. Therefore, with trends inclining towards carbon neutrality, this seems not just the way to achieve sustainable growing patterns in the Kenyan horticultural industry but rather the best.

The Floriculture Sustainability Initiative (FSI) -a multi-stakeholder initiative that brings together members of the international floriculture supply- chain with a concern on improving practices has consistently reiterated the need to drive positive change in the sustainable production and trade of flowers and plants.

Currently, a majority of farms in Kenya are on Integrated Pest Management (IPM) in a sustainable approach, minimizing health

and environmental hazards. They are mindful on the use of less toxic substances and thus World Health Organization (WHO) class 1 substances is strictly prohibited. Instead, farms use WHO classes 3 and 4 which are less hazardous. The use of WHO class 2 is only deployed in special circumstances. In order to reduce the residue level, flower farms are opting to use chemicals that are kept on pre-approved lists. Again, most of the farms have wetlands, therefore, any water leaving the farms passes through these wetlands; in simple terms the water that goes back into the water table is absolutely clean.

On a similar note, a large number of farms are opting to grow hydroponically. Through this system any water let into the environment is purified before it enters back into the water stream. Again in this system, water is collected in troughs and recycled. Fertilizer is also absorbed through the same method to ensure maximum absorption by the plants, with none leaching to the environment.

The use of rainwater by flower farms in Kenya to supplement the existing source of water is

also a milestone to achieving carbon neutrality. This also reduces reliance on natural sources and underground water. Rain water is neutral and better for plant health than the alkaline lake water. It boosts the plants ability to absorb nutrients. Structured water-use monitoring has also been incorporated by most farms to ensure a farm's needs match its water supply capacity.

Also, crop rotation to maintain soil fertility is another way to go. This is done especially through use of special break crops and commercial crops to treat and rehabilitate the soil. Excessive use of inorganic fertilizers which may result in mineralization of underground water is discouraged and instead comprehensive use of compost manure where their flower crops are grown in soil is encouraged.

To curtail pollution, zero tillage is also a consideration. This is because ploughing turns the soil, thus releasing carbon into the atmosphere. Instead, mild digging (regenerative farming) is encouraged by use of small implements such as hoes or by hand. Not to forget tree planting to boost forest cover. Embracing Sea Freight which is known to cut transport carbon emissions by up to 85% is also a step in reduction of carbon footprint.

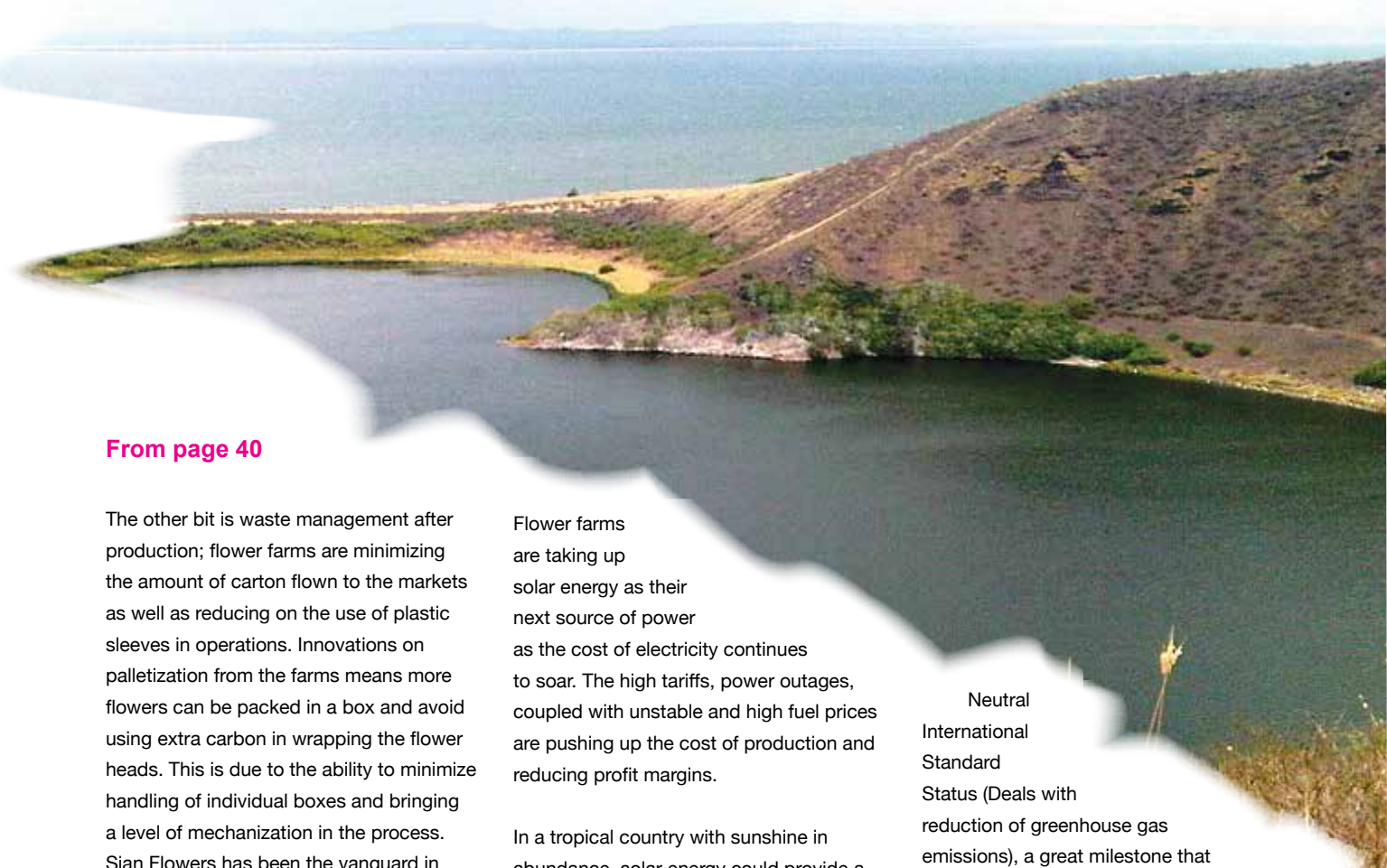
To page 42

The use of rainwater by flower farms in Kenya carbon neutrality. This also reduces reliance for plant health than the alkaline lake water.



to supplement the existing source of water is also a milestone to achieving on natural sources and underground water. Rain water is neutral and better It boosts the plants ability to absorb nutrients.





From page 40

The other bit is waste management after production; flower farms are minimizing the amount of carton flown to the markets as well as reducing on the use of plastic sleeves in operations. Innovations on palletization from the farms means more flowers can be packed in a box and avoid using extra carbon in wrapping the flower heads. This is due to the ability to minimize handling of individual boxes and bringing a level of mechanization in the process. Sian Flowers has been the vanguard in embracing methods that aim at waste reduction such as;

Lean Handling- which includes reducing the number of steps that flowers have to be subjected to during the production processes. It involves fine-tuning the farm's operations and processes.

Value Addition- Sian envisions creation of a value addition center where their clientele abroad can have their products custom-made with desired specifications for their end clients. A step that will eventually cut supply chain costs and waste.

On-Farm Skidding- This aims at reduction in handling along the supply chain, especially on cutting the use of paper packaging, and minimizing waste caused by excessive handling.

Solar energy use in Kenyan flower farms is also gaining traction in recent years. A number of flower companies are now embracing use of solar energy in their daily operations as they move to insulate themselves from erratic electricity supply.

Flower farms are taking up solar energy as their next source of power as the cost of electricity continues to soar. The high tariffs, power outages, coupled with unstable and high fuel prices are pushing up the cost of production and reducing profit margins.

In a tropical country with sunshine in abundance, solar energy could provide a real alternative. These solar power projects are also meant to enable the farms reduce their use of diesel power generators. The Kenyan horticulture industry has been on the spotlight for either their environmental and community impact, or the standard of working conditions. Environmentalists say that industries in Africa have the opportunity to go green and to focus on leveraging sustainable energy solutions.

According to Kenya's flower producers, recently, there has been a massive shift to solar energy for lights and equipment in a bid to clamp down on carbon emissions and fight climate change. Charles Mulemba of Agriflora says, "By embracing solar, we are trying to reduce carbon emissions by about 52 tonnes per year. This translates to about 600 tonnes of carbon dioxide each year."

When Wildfire Flowers in Naivasha completed a 154KW, solar plant in 2020, the farm had made a huge step to achieving carbon neutrality. Recently, the farm achieved One Carbon World-Carbon

Neutral International Standard Status (Deals with reduction of greenhouse gas emissions), a great milestone that placed the farm in the world's growing league of carbon neutral companies, regarded as benchmark of sustainable business. Other farms in similar status as Wildfire are Equinox, Tambuzi and Karen Roses. Tambuzi installed a 60-kilowatt solar power system in a bid to trim operation costs and reduce carbon emissions whenever power supply is interfered with.

Equinox is a member of MPS since 2013 and maintains an 'A+' rating for environmental responsibility on the farm. The farm has undertaken a full Carbon Footprint Validation and achieved the Carbon Neutral Gold Standard with One Carbon World. Equinox also participates in the Climate Neutral Now initiative as a signatory to the Climate Neutral Now pledge.

Karen Roses has already put in place measures to address climate change and mitigate the impact of climate change on environment and society. Together with One Carbon World and the UN Climate Neutral Now Initiative, they have established modern and robust structures to Measure,

Reduce and Offset carbon emissions associated with the group’s operations. According to Disha Copreaux, CEO-Redlands, the farm is Carbon Neutral. Redlands too has an operational solar plant to reduce the cost of electricity and amount of diesel use. ““The first thing I want to highlight is that we’re carbon neutral. We mapped our carbon footprint in 2020 and offset the deficit footprint by purchasing carbon credits in a forestry project. My goal is to offset this deficit with more internal projects like expanding use of solar. We’re also mindful of the way we use water – we’ve been growing hydroponically in a closed loop irrigation system, and any water let into the environment is purified before it enters the water stream,” she said. As Chris Kulei of Sian Flowers details, “we have invested in solar power generation on all our farms; 40 percent of our energy is from these solar panels. Kenya is already powered by 80 – 85 percent renewable energy through the grid.”

Solar power has also cut down production costs. According to him Sian

Flowers, the normal cost of power for almost all farms ranges between 90,000 dollars and 100,000 dollars a month. If we do a 40 percent we are saving an estimate of about 40,000 dollars a month.”

Naivasha’s Shalimar flower farm has been



on the list of farms using solar power ever since they installed a system with a capacity of 428 kilowatts (kw) - one of the largest solar farms in the region.

Flower production involves a lot of water pumping for irrigation and refrigeration of ready products awaiting shipping. These operations require 24-hour supply of power from the national grid, therefore solar energy comes in to save the farms the

hustle of huge power bills.

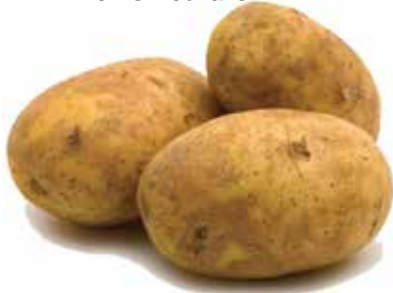
These savings from solar are a game changer for the horticultural sector because the cost of energy for greenhouses and pack houses make up a large part of operational costs in the sector.

Environment experts say, governments in Africa need to stimulate and encourage solar uptake. The lower electricity costs from the solar power will mean that they will have bigger profit margins.

More flower farms continue to get into the solar venture. The growing interest in investing in solar power projects by flower farms has also brought in new vendors of medium to large scale solar power project developers keen to tap into the emerging market.

Conclusively, it is right to say; in this discussion on sustainability and Carbon neutrality is the answer to the question; ‘Are we there yet?’- Kenya stands as a trailblazer in this journey. Our Farmers stand chin-high because they are taking part in the reduction of carbon emissions in line with Sustainable Development Goals (SDG) 12 and 13.





Kenya Potato Consortium to Lay

Ground work for Local Value Chain

It may be recalled how shocked Kenyans were when reports began filtering in the media last year January 2022 that the multinational food giant KFC has run out of 'fries' for customers following the non-delivery of potatoes from their overseas suppliers.

That potatoes for consumption by Kenyans had to be imported was a major surprise amidst the perennial woe and cry by Kenyan potato farmers, especially in the potato-glut zone of Nyandarua of the lack of market for their produce.

KFC was equally shocked by the sharp public rebuke, and together with other stakeholders has been working quietly behind the scenes to put in place mechanisms for a farmer-anchored sustainable supply chain for potatoes.

The project formed the 'Potato Consortium' that brings



From the left: Conen Henreyer (Agro Potato Services Africa), Steve Carlyon (President Simplifine), Dr Kiarie Moses N. Badilisha (Nyandarua County Governor) and Esther Kariuki (Head of Agri Cooperative at Co-op Bank) displaying an MOU after signing on March 7, 2023. Courtesy: Co-op Bank

together all companies that bring on board domain expertise in all matters of potatoes, to ensure the value chain right from the quality of the seed to the farmer financing and eventually to the food plate is consistent with the highest quality standards.



From the left is Esther Kariuki (Head of Agri Cooperative at Co-op Bank), Steve Carlyon (President Simplifine) and Dr Kiarie Moses N. Badilisha (Nyandarua County Governor) signing an M.O.U on March 7, 2023. Courtesy: Co-op Bank

This is what was launched, and the journey towards full local production for Kenya's favourite meal, the potato fries, has begun!

Stakeholders present at the MOU signing

- The Governor, Nyandarua County HE Kiarie Badilisha
- Co-operative Bank Head of Agriculture Business Esther Kariuki
- Agrico's Corien Herweijer
- Bayer East Africa's Eunice Waitthaka
- Simplifine Ltd's Steven Carlyon
- Yara East Africa's Carol Mumo

A brief about the project

Objective: Transforming lives of potato farmers in Kenya

The consortium of like-minded companies that play within the potato value chain, is addressing current barriers that potato farmers face, by enabling access to affordable and quality inputs, credit and sustainable markets.

The partners within the consortium have developed modular solutions that will help farmers increase potato yields through the use of appropriate input packages;

- Yara crop nutrition and soil testing solutions.
- Agrico PSA- provision seed varieties that are high yielding and appropriate for various uses
- Bayer crop protection solutions.
- The Co-operative Bank of Kenya will provide capacity-building support to the county Government and Co-operative Societies to enable them form and run strong, efficient and well-governed potato Co-operatives. The bank will also provide affordable financing options for the farmers to ensure timely access to quality inputs, water, mechanization and post-harvest solutions.
- Simplifine Ltd on the other end shall provide market access for the financed farmers by buying their produce.

The backbone of this will be capacity building on good agronomical practices, financial literacy, contractual literacy e.t.c. with agronomy support provided to assist farmers farm correctly. The end result of this is higher yields experienced by farmers, creating sustainable incomes for the farmers.

Role of potato in Kenya's Agricultural sector

Potato plays a key role and is among the top 5 important crops in Kenya, with approx. 450,000 acres of potatoes are planted per year. The average productivity from studies conducted is 3 tons /acre, making it a loss-making venture for farmers; industries within the potato value chain have growth limitations.

However, with the joint efforts of the partners in the consortium, the productivity can improve to approx. 14ton/acre, with this contributing to food security and through a consistent supply of potatoes, industries can grow.

Counties approached.

Four counties in the first half of 2023 (Nyandarua, Nakuru, Elgeyo Marakwet and Nyeri)

Farmers' project is likely to impact

It is our desire that by 2026, this partnership will benefit 30,000 potato farmers in Kenya, improving yields by ~50% and reducing post-harvest losses by at least 50%, thereby delivering prosperity for farming communities. Key gaps will be addressed including agronomy, commercial and digital knowledge, access to finance and market.

Update on Co-op Bank's strategic involvement in

Agri-Business/Agri Co-operatives sector.

Co-operative Bank is the leading Food & Agriculture financing bank in Kenya and working closely with like-minded partners and Agriculture value chain players are committed to significantly supporting the Agriculture and food systems transformation in Kenya.

<https://www.potatopro.com/>

Governors cry foul after avocado, coffee left out of state priority list

Governors from ten counties in Central Kenya are crying foul over the failure of the government to include several farm products in the list of support through value addition.

According to the chair of the block Mutahi Kahiga (Nyeri governor), failure by the government to list the main crops from the region could

affect farmers and traders.

He identified the missing crops as coffee, avocado, pyrethrum, macadamia, bananas, potatoes, maize and wheat. Kenya is one of the largest producers of avocado in Africa.



In a communiqué, the Nyeri Governor said that the Central Economic Region Block contributed more than 28 per cent to the national GDP.

“We shall engage the national government so that the value chains of the identified crops are included in the priority list for financial support,” he said.

Hon. Mutahi Kahiga
Governor, Nyeri County

The Formidable Ash mould Pathogen- '*Botrytis Cinerea*'

Botrytis is one of the most damaging pathogens with stems, leaves, flowers, fruit and seedlings all being potential victims. Many growers are familiar with the symptoms of Botrytis, but for some, the first encounter with this pathogen results in severe plant losses as early detection and control are vital if the disease is to be prevented from rapidly spreading through a crop.

Botrytis Field Identification

The Botrytis portrays a characteristic gray, fuzzy sporulation, leaf lesions develop a zonate pattern, flower petals develop tiny flecks of discoloration or blighted, stems dieback from cutting wounds and the development of tan to brown cankers on stems starting at bases of petioles of blighted leaves. It resembles a pile of ash - hence the name 'grey or ash mould.'

Plants can be attacked at any stage of growth, from tiny seedlings to large, mature plants, but new succulent growth, freshly injured tissues and ageing or dead foliage are favored by this disease. As the disease progresses the lesions continue to grow and encircle stems and leaf petioles and will eventually cause plant collapse. Fungal spores can also develop on flower petals, particularly under growing conditions where condensation has been forming and humidity levels are high.

When does the infection occur?

Infection is likely to occur during the production stage in greenhouse/field and in the post-harvest stage of cut flowers through wounds (stub ends, cutting, pruning), decaying or dead plant tissue, direct penetration of undamaged tissue and natural openings.

Infection of flower petals leads to rapid disease



Botrytis on a flower stalk

development in young fruit with the fruit tissue rapidly disintegrating into a water soaked mass. Green fruit that are infected with airborne Botrytis spores, rather than via infected leaf tissue, don't rot and decay but they often develop a condition called 'Ghost spot' which results in pale, cream colored rings on the surface of the fruit.

Post-harvest rots can often be attributed to Botrytis especially when increased humidity in storage promotes the germinating of spores present on the surface of the cut foliage. These rots appear as large water soaked areas often covered with grey mould termed as 'conidiophores.'

Economic Importance of Botrytis in Ornamentals

Botrytis is Catalogued world-widely as one of the most important pathogens and Classified as a

pathogen of high risk by the FRAC. It causes greater economic damage especially during storage and transportation of cut-flowers. This pathogen survives saprophytically.

The other names for Botrytis include; Botrytis Blight, Gray mould, Bud and flower blight, Cane Canker and Blossom blight. The Causal organism is Botrytis cinerea Pers. Ex. Pers - Asexual Stage (*Sclerotinia fuckeliana* - Sexual Stage).

Development and Dissemination

The endemic fungus, spores remains in the air. Also, Free water presence, high RH and high variation in temperature, high planting densities, little ventilation in the conservatories as well as susceptible varieties are all critical factors in the development and dissemination of the disease endemic.

Botrytis predisposing factors are;

Cultural practices, moribund tissue (any aging vegetative tissue), low temperature, deficiencies and excesses of crop fertilizers

on many crops, e.g. Chrysanthemums, ethylene production on cut flowers, e.g. Carnations, mites /thrips damage e.g. on African violet, high humidity e.g. geranium do create opportunities for botrytis infection.

Crop management for Botrytis control/Strategies

Cultural practices:

These are; Removal of infected plant materials, Prevention of formation of large numbers of conidia to be transported by air currents, Provision of good ventilation and air circulation to reduce moisture condensation, use of correct greenhouse material, e.g. ultra violet absorbing vinyl film, use of protective fungicidal sprays and good sanitation in grading areas and storage coolers.

Environmental control of Botrytis is crucial to the management of many crops and is based on increasing temperature and reducing relative humidity levels to create an environment which is not conducive to spore development and germination. Heating and venting of humid air, allowing drier air to enter the crop environment on a continual basis is important for Botrytis prevention. If warm humid air is allowed to cool in the crop overnight, condensation forms, providing the ideal condition for spore germination of Botrytis.

Crop pruning and harvesting should be carried out at separate times as spores released from infected plants during pruning will easily infect cuts or open surfaces exposed during harvesting.

If some time elapses between the two operations, callus tissue can form over cut or open surfaces protecting the plant from spore germination and infection.

Chemical and microbial control

While there are some fungicides that are still effective for control of Botrytis, much resistance on many chemical products has been witnessed thus their use is becoming limited.



Botrytis on foliage: secondary infection at various developmental stages

The main reasons as to why it is still quite difficult to control Botrytis are; Different species of botrytis do occur, Conidia can survive at varying temperatures, it can infect all plant parts, the pathogen has a wide host range, it can persist on dead plant material, occurrence of resistant strains, fungicides often are ineffective after few applications.

and preventing Botrytis damage - certain citrus extracts appear to be a promising control agent although many are still under evaluation. Perhaps one of the most effective controls against Botrytis is the use of biological control agents. Many natural bacterial and fungal antagonists can suppress Botrytis through competition. A research showed that a number of fungi are antagonistic to Botrytis and will prevent the infection of fresh wounds on the plant.



Botrytis canker on rose stem: note elongated brownish spot

Two of the most effective types are Trichoderma and Cladosporium which have now been developed into a number of commercially available products for pathogen control. The methods by which these fungi appear to work involve a complex interaction with the pathogen. The antagonist organism competes with the pathogen for nutrients and sites for spore germination.



Leaf lesions on geranium

However, early control can still be achieved in some situations with the use of Dicarboximide fungicide, Benzimidazole fungicides and chlorothalonil. Where persistent Botrytis attacks are common, the various chemical groups should be alternated to restrict the buildup of resistance by the pathogen to the fungicide used.

There has been some success with the use of various botanical extracts for limiting

Also, some of the antagonists produce compounds that inhibit the germination of the pathogen's spores. Control of Botrytis in the growing environment can be a continual battle under certain conditions, but control is possible with a combination of humidity reduction, prevention of condensation, good hygiene and chemical/microbial control agents. Just as with all other pests and disease problems, monitoring the crop for the first signs of infection is vital, as is providing the conditions which restrict or prevent the pathogen attacking in the first place.



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An important part of Dutch Flower Group's strategy is to 'Team Up With Growers' to strengthen the joint position in the chain. Why is this important?

Harry: "If you work together, you can respond much quicker to the wishes of the customer and, ultimately, the consumer. This is important not only in our sector but also in other sectors. We know what the consumer wants, and we coordinate the offer. In this way, we prevent unnecessary costs in the supply chain, but also a waste of packaging materials, for example. Suppose, as a grower, you always package your flowers in a certain way, but the retailer repackages it because the consumer wants a different packaging. That is, of course, incredibly inefficient and waste; we work to remove this kind of noise. And that's how we put focus on corporate social responsibility at Dutch Flower Group. For the long term, because we enter into strategic partnerships to make the chain more robust. And at the end of the day, the consumer gets more value for their money. A beautiful product for a fair price."

In 2022, the demand for flowers stagnated. The export value fell from €7.3 billion in 2021 to €7.1 billion in 2022. As a result, floriculture is no longer number one in the agricultural export list of the Netherlands. How do you see the future of floriculture exports? Where are opportunities and/or challenges?

Harry: "To paint a realistic picture, you have to view the figures from a historical perspective and compare the figures for 2022 with 2019: the year before the coronavirus pandemic broke out. Then, you will still see a small dip in 2022, but that drop is not that big."

Harry Brockoff, Dutch Flower Group:

"If you work together, you can respond much quicker to the wishes of the customer and, ultimately, the consumer"



Harry Brockoff was the CFO of Dutch Flower Group for more than twenty years. Dutch Flower Group is a family of more than thirty specialized trading companies that together serve the international floriculture industry. In the summer of 2022, Harry handed over the baton to Joost Gietelink. Harry is now a member of the Advisory Board simply because the ornamental horticulture sector is not letting go of him. Svensson recently had the pleasure of interviewing Harry to learn more about his career, sustainability in floriculture, and vision for the future.

"What are the chances of Dutch export?"

The Netherlands has a leading position, and I do not see that changing for the time being. We have various logistics hubs and greenports from which we export our floriculture products abroad. That has been the case for decades, as we in the Netherlands are experts. You can't just copy that. So I am positive about the future. There are still plenty of opportunities in Europe. But we will have to continue to listen carefully to consumer needs and move along with it."

"As for the challenges, of course, the energy crisis puts pressure on our competitive position. If we don't address that, we're going to lose it in the long run. But I don't believe it will come to that. The sector has often proven to be inventive. Energy is saved and made more sustainable in every possible way. But that does not alter the fact that you should continue to do scenario analysis, just like we did with Brexit. At that time, we also outlined various scenarios of the impact on the floriculture sector in order to be able to anticipate developments in time. To rule is to look into the future."

Which trend(s) in retail do you think flower growers should keep a close eye on?

Harry: "Then I come back to that consumer's wish. You can grow such a beautiful flower, but if the consumer does not want it, then it is of no use. Another trend is, of course, sustainably-sourced products. You can see that consumers are eating more and more seasonal vegetables, for example. This trend is also continuing in floriculture. People want to be less pollution and environmental

impact. You can also see this trend towards sustainability in the packaging material. Plastic pots are becoming lighter, and a bunch of flowers is now more often wrapped in paper. It is up to the floriculture sector to continue to surprise consumers with beautiful, sustainable products so that the consumer knows: the most has been done to reduce the impact on the environment. Only then will people continue to buy a bunch of flowers that make them happy.”

Greenhouse horticulture has the ambition to work in a circular manner. How far is floriculture?

Harry: “We’ve come a long way, but there’s still a lot to do. You should never sit still because standing still is going backwards. We all know that. But we have already achieved a lot in our sector. If you look at the past, we have already made considerable progress in water management, LED lighting, how we deal with raw materials, and the health of the crop. If we look to the future, yes, we will have to take further steps there. Collaboration is also important here, in the context of ‘Team Up With Growers’. It is a journey we are on together.”

How innovative is the floriculture sector?

Harry: “Glass horticulture is a sector in which entrepreneurs roll up their sleeves and go for something. I see unprecedented entrepreneurship among growers. They are always working on how something can be improved. Of course, there are currently growers who are having a hard time with the high gas prices, but there are also growers who still earn a good living with a higher energy price. Usually, because they already took innovative steps years ago.”

“The World Horti Center in Honselersdijk, The Netherlands, is also a good example of collaboration and innovative power. This is where business, education, and research come together to learn and innovate. The Dutch Flower Group, therefore, has a warm heart for the World Horti Center.”



Dümmen Orange Farm in Embu Celebrates 40th Anniversary

Employees and guests of the Dümmen Orange farm in Embu (Kenya) celebrated the 40th anniversary of the propagation facility on March 24. Sports activities, award ceremonies, and a spectacular party added to the splendor.

Hugo Noordhoek Hegt, CEO of Dümmen Orange, who attended the festivities: “We are extremely proud of our farm in Embu, a modern facility that in 40 years has grown from 3 to 22 hectares. We had and have a fantastic team here, now over 1200 people at peak times, and I would really like to thank everyone who made this possible.”

The farm was founded in 1983 by Yoder Brothers from the United States and taken over in 1996 by the Japanese Kirin Brewery, one of the predecessors of Dümmen Orange. After a number of ownership and name changes, the farm has been operating under the Dümmen Orange umbrella since 2015.

“Back in 1983, they started with just a few crops, but now they grow over 50 crops, some all year round, others seasonal,” says Jan Molenaar, Managing Director of the farm. “The transformation from the original chrysanthemum farm to the complexity of all the crops produced nowadays would not have been possible without the commitment and dedication of the Embu farm’s employees, most of which reside within the farm with their families.”

Francisco Villasenor, one of the original pioneers and Managing Director for 27 years, describes how even in the early days, the company produced gold-standard chrysanthemum cuttings: “We taught our working teams in ways they would own their work and made them know that from the farm to the world they were making some of the best cuttings worldwide.”

Kenya holds most ‘good’ food Certificates

However, Global Gap still lists Kenya among the world’s riskiest countries for farm workers



Hon. Mithika Linturi,
CS Agriculture

Kenyan farmers have accumulated the highest number of good practice certificates for their farm products in Africa, a European Union standards body has said.

Such certifications indicate that the country’s products meet the minimum requirements for food safety and hygiene, making it easy to export to the European Union and other regions. Although there are many certification bodies, the German-based Global GAP said Kenyans have received the most of its certifications in Africa.

Agriculture CS Mithika Linturi said Global Gap is one of the most sought-after standards in the international markets. “Kenya takes pride in having the most certifications on Global Gap in Africa. The certification scheme

provides an opportunity for Kenyan farmers and exporters to meet the high standards required for the global market,” he said in a speech read by Livestock PS Harry Kimtai. “Our research institutions that include the Kenya Agricultural and Livestock Research Organisation (Karlo) continue to generate practical affordable solutions on good agricultural practices,” he added.

These trends require Kenyan farmers, exporters and public sector institutions to be increasingly flexible and dynamic in responding to a highly diverse market, he said. They must address sanitary and phytosanitary challenges cost-effectively and raise quality standards, among other adaptations, he said.

The Gleaming Future of the Flower Sub-sector

The Kenya Flower Council Chief Executive Officer Mr. Clement Tulezi highlighted that the agriculture sector remains the main source of employment and a major driver of economic growth as it contributed to about 35 percent to the Kenya’s GDP in 2020.

“Horticulture is among the fastest growing sub-sectors in Kenya. In 2021, the sector earned Kenya a total of Sh154 billion. The value of floriculture specifically was Sh110 billion, equivalent to 71 per cent of all earnings from horticulture,” said Tulezi.

Further stating that despite the relative growth, the sector needed a predictable and stable business environment to flourish. “Today, the industry is struggling. The margins are shrinking by the day. Growers are struggling to supply the market and maintain Kenya’s position as a key producer of cut-flowers and ornamental,” said Tulezi.

The CEO stated that among various reasons that are attributed to the struggle of the floriculture sector is global recession and inflation, uncertainty in the market, fluctuating prices of products, extremely high cost of air freight, drought in most parts of the country, high taxation of the sector, unsustainable energy costs, increased cost of accessing



Mr. Clement Tulezi,
CEO- Kenya Flower Council

inputs, non-access to VAT refund. Tulezi further outlined that taxation coupled with high freight rates have seen a decline in the volume of export of flowers.

The 2022 data charts export dropped by approximately 15,000 tonnes compared to 210,000 tonnes in the previous year. He added that the current levies have a huge negative impact on the sector threatening jobs and livelihoods.

Tulezi said that current growth of the sector is curtailed as there are no incentives for new investors. Tulezi emphasized that more investment means expansion of the sector, more jobs, more foreign income and Kenya solidifying its position in the global flower trade.

FLOWER & VEGETABLE FARMS IN KENYA

FARM NAME	PRODUCT	LOCATION	CONTACT PERSON	TELEPHONE	E-MAIL
AAA- Flowers-Simba	Roses	Rumuruti	Sanjeev	0739360050	sanjeev@aaagrowers.co.ke
AAA- Flowers -Chui Farm	Roses	Timau	Phaniel Ochunga	07522506026	fanuel.ochunga@aaagrowers.co.ke
AAA-Simba Farm	Roses	Rumuruti	-	-	-
Across Agriculture Ltd	Herbs	-	Emily Chepkemoi	0729080186	chep28@gmail.com
Africalla Kenya Ltd	Cuttings	Eldoret	Meindert	-	meindert@africalla.com
Africa Blooms	Roses	Salгаа	Ramnath Sarbande	0798190511	ramnath.sarbande@xflora.net
Agriflora (K) Ltd		Nakuru, Njoro	Charles Mulemba	0721311279	cmulemba@sianflowers.co.ke
Aquila Development Co	Roses	Naivasha	Prashant Takate	0799356002	gm@aquilaflowers.com
Baraka Roses/ Mumi Flora	Roses	Ngorika	Paul Salim	0746766638	-
Batian Flowers	Roses	Nanyuki	Rakesh	0724631299	
Beautyline	Flowers	Naivasha	Peter Gathiaka	0721392559	peter@beautyli.com
Big Flowers	Roses	Timau	Gideon Waweru	0721178974	gideon@fontana.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
Bohemian	Flowers	Nakuru	Thambe Sabaji	0734 740202	-
Black Petals	Roses	Limuru	Nirzar Jundre	0722848560	nj@blackpetals.co.ke
Black Tulip- Lemotit	Flowers	Kericho	Yogesh	0715817369	-
Bliss Flora Ltd	Roses	Njoro	Appachu Sachin	0789101060	appachu7@yahoo.com
Bloom Valley	Roses	Salгаа	Ramnath Sarbande	0798190511	ramnath.sarbande@xflora.net
Blooming Dale Roses Kenya Ltd	Roses	Nanyuki	Sunil	0718991182	info@bloomingdaleroses.com
Blooming Africa	-	Gilgil	Bert	0722204309	bert@blooming-innovations.com
Buds and Blooms	Roses	Nakuru	Shivaji Wagh	0720895911	shivaniket@yahoo.com
Carzan (K) Ltd KS	Summer flowers	Salгаа	Stanley Rotich	0721931710	stanley.rotich@marginpar.biz
Carzan (K) Ltd ST	Hypericum, solidago	Sobeа	Thaddeus Adung'o	0716019094	thaddeus.adung'o@marginpar.biz
Carzan - Molo	Carnations	Molo	Charles Chelule	0728784081	charles.chelule@marginpar.biz
Chestnut	Vegetables	Naromoru	Gabriel Kiai	-	gabriel.kiai@aaagrowers.co.ke
Colour Crops	Hypericum	Nanyuki	Kennedy Wanyama	0716389472	colourcrops@tmu.com
Colour crops	Summer Flowers-	Bahati	Patrick Kipkurui	0727806184	bahati@colourcrops.com
Colour crops	Flowers	Naivasha	Geoffrey Mwaura	0722200972	nva@colourcrops.com
Credible Blooms	Flowers	Rumuruti	Eliud Njenga	0722382859	eliud@pigeonblooms.com
Dale Flora	Roses	Mogotio	Brijesh	0715469732	-
Desire Flowers	Flowers	Isinya	Rajat Chaohan	0724264653	rajatchaohan@hotmail.com
De ruiters	Breeder Roses	Naivasha	Ethen Chege	0720477717	-
Dummen Orange	Flowers Breeders	Naivasha	Bart Engels	0759069896	b.engels@dummenorange.com
Eco Roses	Roses	Salгаа	Madhukar Bhalerao	0799555440	Mbhalerao.eco@btfgroup.com
Elbur flora- kimman	Roses	Nakuru	Daniel Moge	0721734104	kimmanexp@gmail.com
Enkasiti Thika	Flowers	Thika	Satish	0735270236	enkasiti@gmail.com
Equinox	Flowers	Nanyuki	Harry Kruger	0707266956	harry@equinoxflowers.com
Everest Flowers Ltd	Flowers	Mt. Kenya	Japheth Chelal	0721770597	-
Everflora Ltd.	Flowers	Thika	Ghanshyam Dusang	0721638005	manager1@everflora.co.ke
Evergreen Crops		Nairobi	Arun Singh	0721941009	arun@evergreencrops.com
Exotic	Roses/ Carnations	Athiriver	Peninah Shimon	0737626533	-
Fairy Flowers	Flowers	Limuru	-	-	-
Fides Kenya Ltd	Cuttings	Embu	Jan Molenaar	0733331580	-
Fontana Ltd - Akina farm	Roses	Njoro	Mahendra Patil	0798254199	mahendra@fontana.co.ke
Fontana Ltd - Ayana Farm	Roses	Mau Narok	Osman	0712933710	osman@fontana.co.ke
Flamingo Horticulture Farm	Flowers	Naivasha	Peter Mwangi	0722204505	peter.mwangi@flamingo.net
Flamingo -Kingfisher Farm	Flowers	Naivasha	Jacob Wanyonyi	0722773560	jacob.wanyonyi@flamingo.net
Flamingo - Osprey		Naivasha	Jacob Wanyonyi	0722773560	jacob.wanyonyi@flamingo.net
Flamingo -Siraji Farm	Carnations, Roses	Nanyuki	Peris Muturi	0729050116	Peris.Ndegwa@flamingo.net
Flamingo - Ibis	summer, vegetables	Nanyuki	Abraham Gitonga	0722605942	-
Flamingo - Pioneer	Roses	Nanyuki	Gregory Sunguvi	-	-
Flora ola	Roses	Solai-Nakuru	Lucas Choi	0721832710	lucas.choi@floraola.co.ke
Flora Delight	Summer flowers	Kiambu/ Limuru	Marco	0710802065	marcovansandijk@yahoo.com
Florensis Ltd	Cuttings	Naivasha	Simon Mwangi	0721519470	simon.mwangi@florensis.com
Florenza Ltd 1 & 2	Roses	Solai	Vivek Sharma	0731040498	farm.florenza@megaspingroup.com
Fresh Gold Flowers Ltd	Flowers	Mt. Kenya	John Karimi	0721622294	karimi@freshgolkenya.co.ke
Gatoka Roses	Roses	Thika	Herman Njuguna	0728 854 844	info@gatokaflowers.com
Golden Tulip	Roses	Olkalao	Umesh Choudhery	0739729658	umesh.gftl@btfgroup.com

FLOWER & VEGETABLE FARMS IN KENYA

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Groove	Flowers	Naivasha	John Ngoni	0724448601	groovekenya@gmail.com
Hanna Roses Ltd	Roses	Thika	Dinkar Wandhekar	0702418174	dinkar@eaga.co.ke
Heritage Flowers Ltd	Roses	Rumuruti	Sailesh Kumar	0722203750	hfl.srk@gmail.com
Highland plantations	Cuttings & Herbs	Olkalau	Mangoli Dickson	0792847884	production@highlandplants.co.ke
Interplant Roses	Roses	Naivasha	Gavin Mouritzen	0733220333	info@interplantea.co.ke
Isinya	Flowers	Isinya	Rajesh	-	pm@isinyaroses.com
Karen Roses	Flowers	Nairobi	Peter Mutinda	0723353414	pmutinda@karenroses.com
Kariki Ltd- Thika	Flowers	Thika	Miriam	0720674307	kariki.production@kariki.biz
Kariki Ltd - Nanyuki	Eryngiums	Nanyuki	Peterson Thuita	0724786004	bondet.fm@karik.biz
Kariki Ltd - Naivasha	Summer	Naivasha	Esau Onyango	0728606878	hamwe.production@kariki.biz
Kariki Ltd - Molo	Fowers	Molo	James Oluoch	0716333717	jame.oluoch@kariki.biz
Kenflora Limited		Kiambu/ Limuru	Abdul Aleem	0722311468	info@kenfloraa.com
Kentalya	Cuttings	Naivasha	Lynette	0733549773	lynette@kentalya.com
Kikwetu Flowers	Roses	Mt. Kenya	Rathan	0787266007	
Kisima Farm Ltd	Roses	Timau	Craig Oulton	0722205828	craig@kisima.co.ke
Kreative	Roses- Breeders	Naivasha	Bas Smit	0733607755	info@kordes-ea.com
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	Roses	Naivasha	Jagtag Shahaji	0792547633	jagtag@vegpro-group.com
Kongoni River Farm - Kongoni	Flowers	Timau	Kadam	0721274413	--
Kongoni River Farm -Bemack	Flowers	Timau	Balasaheb Ingwale	0717181102	balasaheb@vegpro-group.com
Kongoni River Farm - Galaxy	Roses	Naivasha	Chandrakant Bachche	0724639898	chandrakant.bachche@vegpro-group.com
Kongoni River Farm- Longonot	Roses	Naivasha	Ravi Sathe	0715173603	ravi.sathe@vegpro-group.com
Lamorna Ltd (Herburg Group)	Roses	Naivasha	Vijay	-	admin@lamornaflores.com
Lathy Flora & Fairy	-	Kiambu	John Mbaoni	0753888126	info@lathyflora.com
Lauren International	Flowers	Thika	-	-	laurenflowers@accesskenya.co.ke
Laurel Investment	Roses	Olkalou	Ravindra Palshikar	0740569286	ravi.lil@btfgroup.com
Lolomarik	Roses	Nanyuki	Topper Murry	0715 727991	topper@lolomarik.com
Lobelia	Roses	Timau	Ken Mwiti	0722475785	info@lobelia.co.ke
Maridadi Flowers	Flowers	Naivasha	Jack Kneppers	0733333289	jack@maridadiflowers.com
Maua Agritech	Flowers	Isinya	Kori	115355251	kori@mauaagritech.com
Mau Flora	Roses	Nakuru, Turi	Manju	0748254171	manju@mauflora.co.ke
Milenium Growers	Summer Flowers	-	Sushant Wankara	0731316000	sushant@marvelgreens.com
Molo Greens	Solidago, carnations	-			
Mt. Elgon Orchards	Roses	Tran Nzoia	Bob Anderson	0735329395,	bob@mtelgon.com
Mt. Kenya Alstromeria	Alstromeria	Meru	Miriam	0716162671	miriam@mountkenyaalstromerialtd
Mzuurie Group	Roses		Andrew Wambua	0724256592	awambua@moloriverroses.co.ke
Mzuurie Flowers - Maji Mazuri	Roses	Moi's Bridge, Eldoret	Mark Juma	0727471034	mjuma@majimazuri.co.ke
Mzuurie Flowers - Molo River Roses	Flowers	Kilelwa	Paula Koros	072241436	pkoross@moloriverroses.co.ke
Mzuurie Flowers - Winchester Farm	Roses	Karen	Kasoso Joseph	0725696509	-
Mzuurie Flowers - Winchester Farm	Flowers	Bahati	Joseph Kasoso	0725696509	jkasoso@winchester.co.ke
Nini Farms (Herburg Group)	Roses	Naivasha	Vijay Bhosale	0702662297	vijay.bhosale@herburgroses.nl
Nirp East Africa	Roses	Naivasha	Danielle Spinks	0702685581	danielles@nirpinternational.com
Ol Njorowa	Roses	Naivasha	Charles Kinyanjui	0723986467	mbegu@olnjorowa.com
Panda Flowers	Roses	Naivasha	Sundhar	0748436571	farm@pandaflowers.co.ke
Panocol International	Roses	Eldoret	Paul Wekesa	0722748298	paul.wekesa@panocal.co.ke
Penta	Flowers	Thika	Tom Ochieng	0723904006	tom@pentaflowers.co.ke
Pendekeza	Roses	Nanyuki	James Kiiru	0708124381	tambuzi.sales@tambuzi.co.ke
PJ Dave Flowers	Flowers	Isinya	Pravin Yadav	0708920202	gm@pidave.com
PJ Dave	Roses	Timau	Shantaram	0732556256	fmrisingsun@pjdave.com
PJ Flora	Roses	Isinya	Santos Kulkarni	0738990521	santosh@pjdaveflora.com
Plantech Kenya Ltd	Propagators	Naivasha	Idan Salvj	0702187105	idan@plantchkenya.com
Portni Flowers	Roses	Molo	Shakti Vanjimuthu	0739676998	shakti@poriniflowers.com
Primarosa Flowers Ltd	Roses	Ol njororok	Peter G. Njagi	0723575461	opm@primarosaflores.com
Rain Forest Farmlands Ltd	Roses	Naivasha	Boniface Kiama	0722780811	bkiama@fleurafrica.com
Ravine Roses Flowers	Flowers	Eldama Ravin	Peter Kamuren	0722205657	pkamuren@karenroses.com
Redland Roses	Flowers	Thika	Kadlag Palaji	0723149968	-
Redwing Flowers	Flowers	Nakuru	Simon Sayer	0722227278	sayer@redwingltd.co.ke



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