March - April 2013

THE LEADING FLORICULTURAL JOURNAL IN THE REGION

FLORICULTURE

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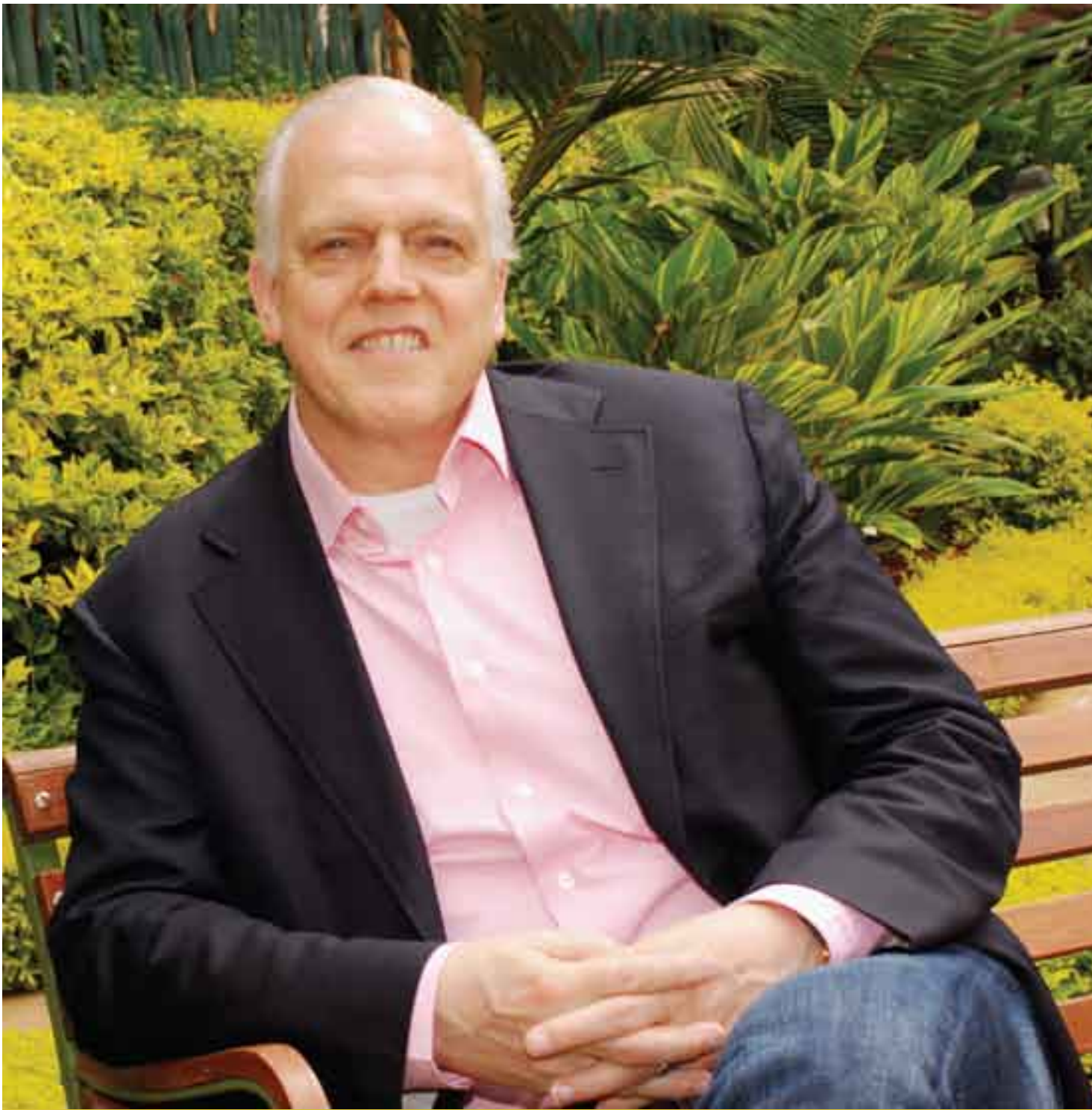

Tete a Tete With Dick van Raamsdonk

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Cover Photo Courtesy of Hortinews

The Leading Floriculture Magazine

Contributions to Floriculture are welcome. Although every effort will be made to return manuscripts and photographs, these are submitted at owners' risk. Opinion expressed by contributors are not necessarily the views of Floriculture.

 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, research offices and suppliers of agricultural inputs in Kenya.

Reflection of a Dozen years Service to the Flower Industry

Many people get reflection, and I'm no exception. It's hard not to look back over the last 12 years, and take stock of the events, challenges and opportunities. When we began, we laid our aggressive plans for growth and have since forwarded our effort on executing against them. By and large we have answered the challenge of the last dozen years.

We've had a successful time, and even more importantly, we set ourselves up for the future. We accelerated our sales growth, reduced costs and more importantly made key investment in the business.Several factors are contributing to this success, including positive response from our key advertisers, expansion of our circulation, and enhancing our infrastructure by moving to larger spacious offices and developing our talent within the organization.

Specially we are driving circle the readers with our style, which gives ownership to growers to advance their critical strategy. We are also unlocking the magazine with professional features hence allowing more horticultural professionals to participate journalistically. Ultimately, this boils down to quality of our magazine

Driving ongoing cost savings initiatives and finding new and greater avenues for growth. We must accelerate all our core initiatives to realize our core potential. This will require focus on discipline, team work, courage and urgency by every partner of Floriculture Magazine.

In business, there are always challenges. One of our greater strength is our ability to navigate through them.We've been succesful doing this in the past, and I'm confident we will continue to do so in the future. Finding a way to do a great job.

Taking care of our customers and delivering information is our job. It's our responsibility. And it's a responsibility. I look forward to meeting with all of you. We have the opportunity, talent and plan to continue to deliver great results, and I know the next dozen years will bring greater things for our company.

So take time to work hard and take pride in our accomplishments. You deserve it. It is only when you flourish as partners will we grow. There is nothing more important than your growth and well being, so take care of each other, take care of yourselves, and enjoy 2013.

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Kenya Flower Farmers Counter Tax Evasion Charges

The Lake Naivasha Growers Group (LNGG), a lobby group representing horticulturalists in Kenya's Naivasha region, denied claims of tax malversation that have been leveled against some of its members. No formal complaint whatsoever has been filed yet, the organization points out.

"The Kenya Revenue Authority definitely have their own procedures for doing things but we are not aware that any producer is under investigation over tax malpractice," Joseph Kariuki, LNGG exec, commented to regarding the charges.

Kenya's taxman had indicated misgivings over the horticulture industry's record-breaking profits, which somehow manage to go hand in hand with virtually non-existent tax liabilities. He suspects the firms engage in illegal 'transfer pricing', a practice whereby a business' foreign partners "inflate cost of goods and services extended to local units in order to ensure only a small portion of income is reported for taxation".

Industry overseer the Kenya Flower Council also expressed dismay at the charges of tax manipulation. "I am surprised that in spite of the open-door policy of the industry, [the Kenya Revenue Authority] has withheld information of this magnitude from us," KFC Chief Executive Jane Ngige comments. "All I know is that KRA owes the industry up to Sh20 billion in VAT refunds. Validating refund claim is usually a long process that includes auditing of flower farms' records by KRA, yet they have never raised this issue with us", she concluded.

Ethiopia Offers Longer Tax Holidays, More Land For Flower Growers

Africa's second-biggest flower grower, is offering expanded tax breaks and more land in a drive to more than double export revenue from the crop to $530 million annually by the middle of 2015.

The country, which has already attracted growers with free land, tax concessions and inexpensive labor and power, is considering longer tax holidays, more growing space and expanded duty-free vehicle exemptions.

The government wants the area where flowers are grown doubled to 3,000 hectares (7,413 acres) by mid-2015, part of a five-year plan to transform the economy of Africa's second-most populous nation.

The government has identified three 500-hectare (1,236-acre) greenhouse locations near Koka, Weliso and DebreBerhan. The government is set to loan as much as 70 percent of the total investment cost and keep electricity, telecommunications and customs offices on-site.

Tax Changes

Growers met with the government to discuss a change in taxes and the performance of Ethiopian Airlines since it took over ground-handling and logistics. The government now charges $3.68 a kilogram (2.2 pounds), instead of 10 cents a stem, for flower exports. More than half of exporters oppose the change since bulkier varieties are losing money under the new formula.

Ethiopian Airlines always flew the regular cargo flight to the Belgian city of Liege and now has started doing logistics for it. The "knowledge, experience and the proper technology of handling perishable items is not there. The horticulture agency asked the state-run airline to manage the freight service after growers complained about the cost when the previous cargo handler raised its fee and jet fuel prices climbed.

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Good Opportunity For Horticultural Firms

As a pioneer for development of the Ethiopian horticulture subsector, the Ethiopian Horticulture Producer Exporters Association (EHPEA) is widely referenced as a place for the subsector's information and respectively has been striving to its best to fulfill the inquiries through its website and mini-library services.

Entrepreneurs, academia, researchers, social workers, policy makers, consultants, farmers, financiers, input suppliers, are among those who used the EHPEA information service so far. Nevertheless, the exorbitance in amount and diversification of the information demand coupled with requirement for efficient information dissemination system and reliable data provision have necessitated for better documentation scheme as well as dissemination mechanism with EHPEA. Hence, with the intent of furthering EHPEA's prominent role in contributing to the country's well-informed horticultural development, EHPEA has engaged in establishing of an interactive Resource Center with financial support of the Spanish government cooperation through the Spanish embassy in Ethiopia.

The one-stop-resource center is to compile and provide all categories of Horticultural information through tailored database system and online dissemination facility. The data base is intended to include details of EHPEA - the association and its members; public and private organizations working on the horticulture sector.

Living A Fair Future

MPS General Manager, Theo de Groot, presented the new campaign for sustainable ornamental produce at the 2013 IPM Fair in Essen. Together with Jan Roelofs, Chairman of BGI, he unveiled the new slogan, illustrating that MPS will make some minor changes in the Fair Flowers Fair Plants concept.

MPS will continue to cooperate closely with other qualified organisations in certification. The strong basis, prepared by FFP's board, will be developed into a unique marketing concept for participants.

IPM-Essen was chosen for the launch of this new campaign, since the German market is showing growing interest in 'Fair' produce. Many exhibitors, presenting top-quality products, make a claim for sustainability. MPS is convinced that Fair Flowers Fair Plants will experience Germany to be a booming market in the next year. Good contacts with major partners give great confidence in this regard.

After the Swedish and Austrian Florists who have already joined the concept in large numbers, German Florists will use Fair Flowers Fair Plants as their answer to the sustainability claim big supermarkets.

The only obstacle seems to be the absence of certified plants and flowers. This is a hurdle to be taken by MPS and by the producers already involved in environmental and social certification and auditing.

This will be easier to do, considering wholesalers in the above mentioned countries have indicated their willingness to provide accurate information concerning their supply features, certification included. MPS presented itself as an energetic and motivated candidate for the job.

Mr. Jakaya Kikwete, President of Tanzania (file Picture)

Tanzania To Kenya: Stop Sabotaging Our Flower Sector

But Kenyan authorities have said they will not allow Tanzania's traders to use JKIA to export flowers until they meet the required safety standards.

Kenyan's determination to protect the lucrative cut flower industry from pests and diseases is putting it on a warpath with Tanzania.

This comes after Tanzania accused Kenya of sabotaging its nascent cut flower industry by refusing to lift a ban prohibiting Tanzania from using the Jomo Kenyatta International Airport (JKIA) as a transit route to international markets.

Kenya has, however, disputed Tanzania's claims, with Managing Director of the Kenya Plant Health Inspectorate Service (Kephis), Dr. James Onsando, saying that the country is willing to lift the ban as soon as Tanzania complies with all risk assessments. "Tanzania is yet to comply with some of the risk analysis issues raised in a memorandum of understanding (MoU).

As soon as they do that, we will lift the ban," he said. The ban, imposed in 2011 ostensibly to protect Kenya's cut flowers from the risks of pests and diseases, has made it difficult for Tanzanian farmers to export their produce, particularly to Europe.

Tanzania prefers using JKIA so as to ride on Kenya's successful cut flower industry, conducive weather in Nairobi – and also because there are no regular cargo flights from Dar-es-Salaam International Airport.

Blossoming Industry

Players in Tanzania's cut flower industry believe by failing to lift the ban, Kenya is sabotaging the blossoming sub-sector estimated to be worth Sh6.8 billion.

The move is threatening to worsen the already antagonistic trade relations between the two neighbours at a time when the East Africa Community is pushing towards deepening regional integration.

Dr. Onsando said Kephis will not lift the ban until Tanzania adheres to the agreements contained in the MoU to protect the local industry. He added that although a pest risk analysis has been conducted, Tanzania is yet to address all the issues raised to warrant the lifting of the ban. "As soon they do what we agreed, the ban will be lifted," he stated. The cut flower industry is critical to Kenya's economy. Available Statistics show that the sector has been expanding at an average of 20 per cent per annum.

Huge Market

The industry a major foreign exchange earner has over half a million Kenyans depending on the industry directly. Kenya is a major exporter to the European Union, contributing over 35 per cent of all flower sales.

hyK

HIGH CONCENTRATION POTASSIUM SOLUTION TO CORRECT DEFICIENCIES OF POTASSIUM IN FLORICULTURE, HORTICULTURE AND FIELD CROPS

hyK is a concentrated inorganic formulation containing potassium and nitrogen. Potassium is the second major nutrient required by all crops, highly mobile and quickly distributed within the plant.

The main function of Potassium within the plant is as a water regulator which in turn affects many plant processes such as:

- regulation of cell water content,
- cell turgidity
- transpiration rates
- translocation of photosynthesates and enzymes.

Low levels of potassium can critically affect the growth of the crop, subsequently affecting quality and yield. **hyK** is a unique formulation containing a high concentration of potassium. This high analysis ensures optimum uptake of the potash where required and also assists the plant to create a leaf environment unfavourable to disease development.

Analysis of hyK	Weight/Volume	Weight/Weight
Total Nitrogen (N)	3.00%	1.95%
Potassium (K2O)	50.00%	33.00 %
pH: (10% solution)	11.0 – 12.5	

Recommended Rate:	3 litres per hectare
Water volume:	1000 litres
Frequency of application:	Apply 10-14 day intervals

Directions of use:

1. Always shake container before use.
2. Fill half the required amount of water in the spray tank.
3. Measure the required amount of hyK and add to tank. Maintain constant agitation.
4. Add remaining water to correct dilution.
5. Spray and ensure full coverage.
6. The product should always be used with a compatible wetter/sticker (not a buffer).

Tank Mixing Compatibility

Although it is compatible with most, but not all pesticides, growth regulators and micro-nutrients, it is advisable to use **hyK** on it's own in a tank mix with a compatible wetter only (not a buffer). Always carry out a phytotoxicity test on a small area before large scale application.

Liability cannot be accepted for any loss or damage as not all pesticides and fertilisers have been tested for compatibility. Efficacy of any mix will depend upon crop type and growth stage, pesticide concerned, climatic conditions, water volumes and various other factors.

Storage & Shelf life

Store in a cool dry place away from the heat and sunlight with optimum storage range between 5-40°C.

Although **hyK** is low in toxicity, it can cause eye and skin irritation in concentrated form. It is non-hazardous and non-flammable. However, when handling the concentrate, protective gear should be used such as gloves and face shield.

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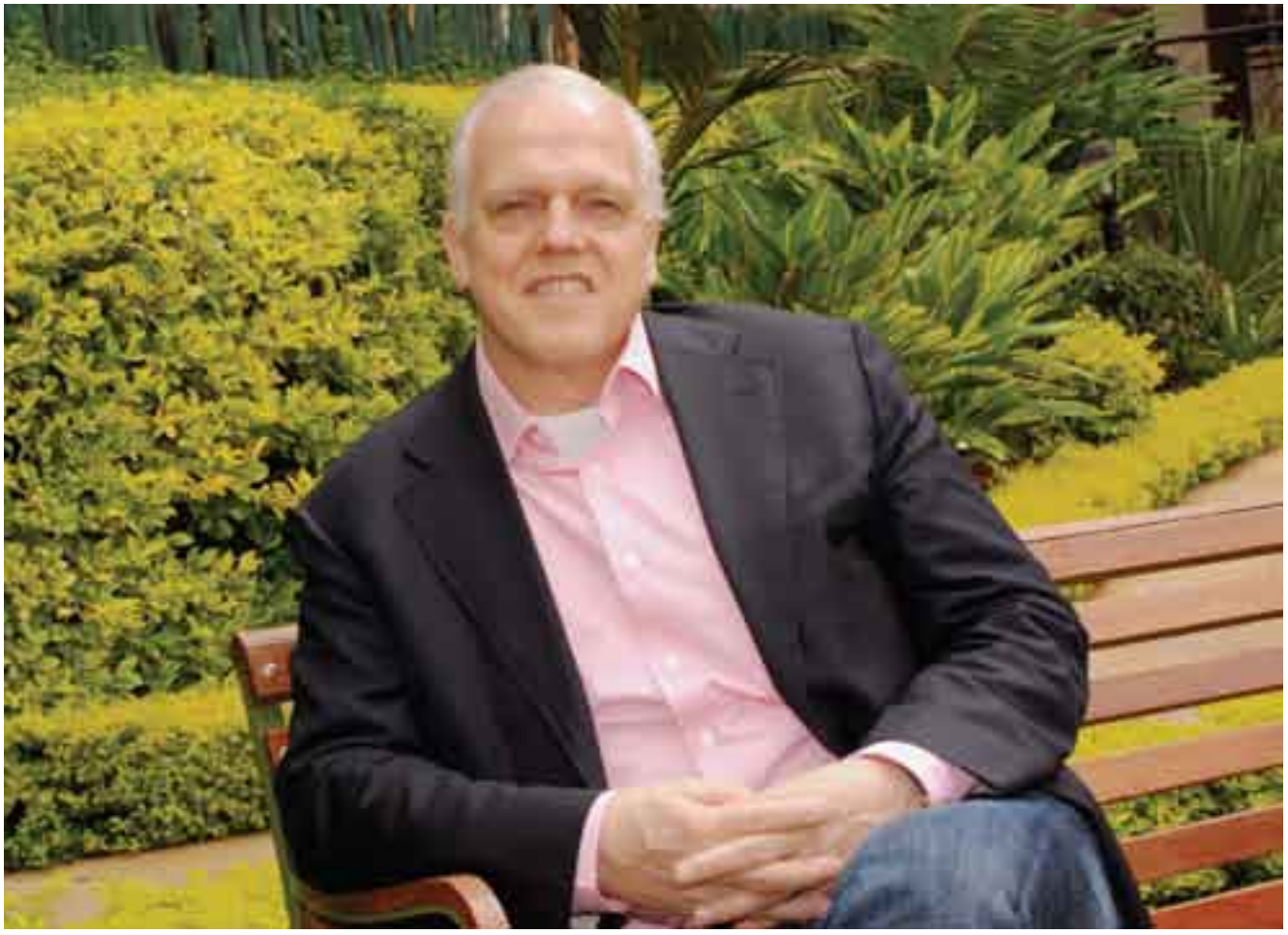

Tete a Tete With Dick van Raamsdonk

The second edition of the International Flower Trade Expo (IFTEX) Nairobi will take place on June 5-7 2013, at the Visa Oshwal Centre, Westlands, Nairobi. Below is a chat with Dick van Raamsdonk, President HPP, and the organizer of the event;

Q ***After staging the first IFTEX in Nairobi last year, you were happy with the outcome, one of the reasons why the second edition of the event is back this year. What would you attribute this success to considering you indicated the inaugural show exceeded expectations?***

A The fact that Kenya is the only country in the world where the production area of flowers structurally increases is a strong indicator that the sector -overall- is in a good shape. Moreover, growth in a worldwide economical turmoil shows that the sector has to row against the stream and still moves forward. This cannot mean anything different than strength for even more growth when coming into calm waters. Therefore IFTEX is an excellent instrument for the Kenyan floriculture Industry to support and accelerate this growth.

Q. ***What was your most 'unexpected' occurrence at the show, e.g. looking at the following list, did you expect a smaller number?***

A No, I did not expect a lower number of exhibitors. I was 100% confident that this trade fair could not fail and would be a "full house". The only big unknown factor was how to convince the Kenyan growers that this would work if they just would believe in it. Never before in my 28 year career of organising flower trade expos anywhere else in the world, I had so many excellent building parts in my hand to create the almost 'perfect' flower trade exhibition, I am even tempted to call it.

Being a flower trade expo specialist, I got very excited the moment I added it all up and suddenly visualized the ideal place for an African flower trade expo could,

would and should be Kenya and Kenya only. I then decided to hold as many meetings with the growers as needed until they would be convinced to give it a try and take a booth. It was somehow still unexpected though when I finally I managed to get enough on board. Even though it was the first time for such event in Kenya, a total of 140 companies exhibited.

Out of the total, 93 were Kenyan companies which included 61 local growers. Kenya Flower Council (KFC) also facilitated in making the expo a success by mobilizing its producer members who included Magana Flowers, Sian Roses, Finlays Horticulture, Mweiga Blooms, Maridadi Flowers, Oserian, Xpressions, P. J. Dave flowers, Black Petals, Harvest Ltd, Elbur Flora, Isinya, Mosi, Simbi Roses, Desire Flora, Mt. Elgon, Kreative Roses, Primarosa, and Vegpro Group. KFC Associate members included Bayer Crop Science, Elgon Kenya, Koppert Biological, Syngenta, De Ruiter East Africa, Dipchem East Africa, FloraHolland, Schreurs, Hortilink, Kuehne + Nagel , The Flower Hub Kenya, and UFO Supplies.

Q. ***Do you expect a bigger IFTEX 2013? Why, if yes?***

A. Yes, IFTEX will definitely grow in its second edition this year. Not only because of many more Kenyan growers who want to exhibit this time, but also last year exhibitors wanting to display in bigger stands. Furthermore, IFTEX is bound to become a regional event, hosting growers from other African flower producing countries that are too small on its own to hold such event. And as already mentioned, I expect IFTEX to become the Africa's flower grower trade fair within a few years, becoming the sourcing market for the world for any African fresh cut flowers.

Q. ***What can you single out as the most outstanding feature of IFTEX Nairobi in terms of exhibitions and visitors?***

A. The only event where you can meet all flower growers at the same time and place, together with its buyers.

Q ***When you first spoke on IFTEX Nairobi, you said it had potential to grow into the largest flower fair in the world. What are the other big events in the world, and why do you foresee Kenya beating them in days ahead.***

A The other big cut flowers trade events are in Ecuador, Colombia, Germany and Holland. Kenya will soon join this list and become a serious competitor for the number one position. Compare it if you like with the European Cup, South American and the now strong African cup.

Q ***What kind of feedback did HPP get from those the fair targeted last year? Is it the same group that is expected in 2013? Can you point one good example of something that has happened because of the fair?***

A. Feedback was positive; above expectations and the most important outcome was confidence in the future of this fair. There will be many new international exhibitors as well signing up for this year. Furthermore most, if not all 2012 exhibitors will be present again this year with, in many occasions, bigger sized stands.

The most important thing that could have happened in the fair and which actually did happen is the change from doubt in belief that flower buyers did fly in and did attend the expo.

Q. ***What is new in 2013 that was not there in 2012?***

A. The 'only' thing that will be new is: everything more & bigger!!!

Q. ***As an investor in Kenya, what is your view on business climate, what are the most challenging encounters, and how would you suggest that things be done differently or improved, especially now that the country is headed to getting a new government that needs to focus on economic development and improved lifestyles for its citizens, visitors and investors?***

A. As an investor you need a stable economical and political environment. Only then an investor is willing to keep on investing, especially foreign investors and then can a country expect more jobs and consequently a better lifestyle for its citizens.

JUMBOLENE® : THE QUALITY PACKAGING SOLUTION TO POST HARVEST MANAGEMENT

In the past thirty years, the market for cut flowers has become a global one; flowers sourced from around the world are sold as bunches or combined into arrangements in the major target markets, such as USA, Japan, and the E.U. The high export value of flowers has led to dramatic increases in production in many developing countries, such as Kenya, particularly aided by the presence of ideal growing environments. Due to this global production system and market place, and the high perishability of cut flowers, quick transport systems as well as efficient packaging methods have become necessary.

The costs of cultivating various flowers are relatively high and stringent pre- and post-harvest procedures must be in place to ensure a high quality output that will fetch good prices in the international market. Process systems for harvesting , grading, bunching, sleeving, packing, pre-cooling, transportation and marketing of cut flowers vary according to individual crops, growers, production areas, and marketing systems. In spite of this, flower cultivation and post-harvest processes share a common aim - The provision of a floral product that guarantees end-customer's needs of freshness, full enjoyment of colour and extended vase life.

Jumbo Chem Kenya Ltd, a local manufacturing company, offers quality solutions to post-harvest management through its efficient Jumbolene® packaging products.

Jumbolene® is an excellent cushioning material that ensures the prevention of bud damage to flowers during grading and transit. It is made of 100% closed cell polyethylene foam material.

Jumbolene® is resilient and is an excellent vapour barrier that aids in keeping the flowers fresh through moisture control during transit, thereby ensuring the flowers remain fresh and will neither wither nor rot. Temperature control enhancement is a major benefit accrued through use of the product, as Jumbolene® ensures maintenance of the flower's cool chain, essential for optimum quality and satisfactory vase life.

Jumbo Chem is committed to responsible production practices. "Our corporate adherence to international social, ethical and environmental standards is evidence of our commitment to responsible business practices. Jumbolene® packaging is CFC and HCFC free and is therefore non-toxic to the environment," reiterates Mr. Michael Bodo, General Manager –Jumbo Chem Ltd.

Jumbolene® is competitively priced in the packaging market and is available in a range of thicknesses to suit the client's specifications. Being a locally manufacturing entity also ensures that client's needs are suitably met within the specified timelines with minimal lead times needed in delivery.

Additional advantages of Jumbolene® over traditional packaging materials include its impervious nature to fungus and mold which helps to reduce cases of Botrytis if present among the flowers.

Through our corporate core values of customer focus, quality and innovation combined with the Jumbolene's superior benefits, Jumbo Chem (K) Ltd ensures an efficient solution to flower packaging needs.

JUMBOLENE

Jumbolene is a closed cell non cross-linked polyethylene foam which is designed to absorb the knocks and scuffs that threaten your product during transit. It is a cleaner, more attractive, efficient and cost effective solution to a range of packaging applications.

BENEFITS

- Excellent cushioning effect
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IFTEX Kenya Poised To Become A Leading Flower Show

The second edition of the International Flower Trade and Exhibition (IFTEX) will be held in Nairobi in June. According to the organizer of the event, Mr Dick van Ramsdonk, the President of HPP that stages flower shows in the world's major growing and trading regions, the Kenya version is poised to become the leading flower show in years to come.

These predictions are premised on the fact that Kenya is the leading supplier of cut flowers to Europe, amidst observations that production is shifting to Africa that has cheaper labour and naturally favourable growing weather conditions.

Recently, a group from South Africa visited Nairobi in what they called a fact-finding mission about Kenya Flowers. The Kenya Flower Council hosted the guests from the Natal Investment Council, as they sought collaboration with Kenyan farms who could supply them with the country's prized flowers.

One of the most notable statements from the visitors was that despite its being the continent's economic powerhouse, South Africa 'feared' Kenya when it came to the business of growing flowers.

"When you think flowers, the first question that comes to mind is; can you compete with Kenya?", the South Africans said after being taken on a tour of farms in Naivasha, Athi River and Nairobi, and their conclusion was; we cannot!

It also emerged that Kenya is increasingly becoming a choice supplier of flowers to South Africa, and that the country was considering leasing farms for its citizens to invest in export flower growing due to high cost of production and a harsh climate down there.

The Kenya Flower Council CEO, Mrs. Jane Ngige, opines that the future of the global flower industry is Africa, led by Kenya. 'It is becoming impossible to grow flowers in Europe, which is the world's biggest flower market due to high cost of production.

Labour and power costs are prohibitive, a development that has seen a major shift to Africa, especially Kenya, Tanzania and Ethiopia.

Africa's competitor in Flowers has been South America - Ecuador and Columbia- but both countries are witnessing reducing production as growers shift to more lucrative ventures such as real estate, leaving Africa as the front runner in the global supply of flowers.

What this means is that Africa needs to take advantage of the vacuum created by the exit of producers from other continents and collectively grow a floriculture industry that can be termed as the 'oil of Africa' since all indications are that the continent is poised to be the main source being the only region with conducive producing parameters.

The business of flowers is basically sentimental, and even within a shrinking global economy, consumers need the products to brighten up their lives, while in countries like Russia, all occasions that bring people together like birthdays, business meetings, weddings, and many more are never complete without a bouquet.

Another interesting development that points to this supremacy is the establishment of a water management technology at the Van den Berg Farm in Naivasha by Green Farming, a team of Dutch companies that is seeking to deepen high technology farming practices in Africa.

That they have chosen Kenya as the demonstration country for these technologies says volumes about the country's leading role in flower production, a position that we, the stakeholders in this sector must guard by embracing best practices, to ensure that our flowers remain the brand at the auctions, supermarkets and other outlets.

As a leading supplier of products like greenhouses, fertilizers, packaging materials and agrochemicals in the flower industry, we at Elgon Kenya Limited salute our growers who are arguably sitting among the country's leading brands in the international arena.

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Tomahawk® 250 EC

Tomahawk 250EC specialty fungicide works systemically and provides both curative and preventative performance in Roses.

How It Works

The active ingredient in Tomahawk ® (myclobutanil) is a demethylation inhibitor (DMI) that impedes the synthesis of ergosterol an important component for fungus cell wall development in targeted pathogens. It migrates upward through plant tissue and provides continued protection as new foliage appears for up to 28 days after an application. Tomahawk ® does not exhibit plant growth regulator effects associated with other DMI fungicides. As a fast knockdown treatment for disease problems and a protective treatment to prevent new or recurring outbreaks.

Diseases Controlled

Tomahawk ® is labeled for use on Roses for the control of:

- Powdery mildew
- Anthracnose
- leaf spot diseases
- Rust
- Necrotic ring spot

Rates

For best control on ornamental diseases, achieve thorough coverage of all plant parts on a protective application schedule. Apply Tomahawk® at the rate of 500-750 ml/ha in 1000L of water on a 7 to 14day application schedule.

Application

Thoroughly mix Tomahawk® in a spray tank or backpack sprayer with the appropriate amount of water for good coverage.

Tomahawk ® specialty fungicide is compatible with most commonly used fungicides, insecticides, herbicides, micronutrients and spray adjuvants, you can tank-mix it with other treatments to make it easier and less labor intensive to derive multiple benefits from a single application.

Key Benefits

- Tomahawk® offers broad-spectrum and effective diseases control
- Offers ability to be used in a complete program for all ornamentals
- Systemic protection that protects new growth
- Easy to measure, mix and apply
- Excellent residual performance

STRATEGY FOR MINIMIZING OBSTOCKS TOWARDS ZERO

Throughout Kenya, obsolete pesticides and related wastes risks environments and communities. If such stocks were not stored correctly, the original product packaging deteriorated, leading to leakages and possible contamination of soil and water sources.

The Kenya Safeguarding "CleanFarms" Project had the objectives of locating, identifying pesticide obsolete stocks and associated wastes, assessing the risks arising from such stocks and safeguarding them ready for disposal in licensed facilities.

The key to success in identifying obsolete pesticides and associated wastes was partnering with the GOK, other national authorities and then reaching out to a broad range of stakeholders that included farms, co-operatives, suppliers, distributors, Agrovet outlets and research institutions.

Throughout Kenya, obsolete pesticides and related wastes risks environments and communities. If such stocks were not stored correctly, the original product packaging deteriorated, leading to leakages and possible contamination of soil and water sources.

Sometimes, obsolete pesticides that are not securely protected may find their way into unauthorized hands and for illegal uses endangering food quality.

Therefore the locating, identification, safeguarding and transferring all obsolete highly hazardous stocks to a safe and secure storage site, significantly reduces their potential to cause harm.

A total of 205MT of obsolete pesticides and related wastes were identified out of which 30MT were safeguarded and shipped for safe disposal in U.K. in approved incineration facilities.

The Agrochemicals Association of Kenya is therefore deeply concerned about the obsolete pesticides and related wastes clean up because of the following reasons:

a) As suppliers we want a world free of obstocks with effective measures to prevent recurrence.
b) As responsible suppliers of pest control technologies, we are working to reduce the risks associated with obsolete pesticides and related wastes that will overtime deteriorated. And as we have seen old and unusable pesticides pose a potential risk to the environment and to human and animal health up to the point of their safe destruction.
c) Export market requires high standards of waste management which include appropriate disposal of obsolete pesticides and empty containers.
d) Domestic market consumers are increasingly getting aware of the need for produce from an environment which is pollution free.

The Ministry of Agriculture and CropLife International believe that the information gained in the 'Clean Farms' Kenya Safe guarding Project initiative will assist in forward planning on the way to manage obsolete pesticides in Kenya contributing to acceleration of the overall Africa Stockpiles and to risk reduction.

Sources of obsolete pesticides

(i) Importers/suppliers of pest control technologies
(ii) Distributors
(iii) Agrovet Outlets
(iv) Farms
(v) Farmer &Co-operative Societies
(vi) Government of Kenya

Factors contributing to obsolete pesticides

(i) Importers / suppliers

(a) Suppliers minimum purchase (volumes)
(b) Market share growth strategy by supplier/ importer
(c) Suppliers Annual targets to the importers
(d) Weather is increasingly more unpredictable
(e) EU directives on export market that target certain molecules
(f) Change of user pattern/regime
(g) Importation of products below 2/3 shelf life
(h) Tendering bureaucracy

(ii) Distributors/Agrovet Outlets

(a) Importers minimum purchase by distributors/ Agrovet outlets
(b) Market share growth strategy by the importer and distributor/Agrovet outlet
(c) Annual targets set by the importer to distributor/ Agrovet outlet
(d) Weather increasingly unpredictable
(e) EU directives on export market that target certain molecules
(f) Change of user pattern
(g) Stock management (failure to adhere to FIFO rule)
(h) Consignment stocks from importers (products normally expire in storage)

(iii) Farmers

(a) Weather increasingly unpredictable
(b) Inadequate technical knowledge
(c) High standard export market demands
(d) Change in user pattern/regime

(iv) Farmer Co-operative Societies

(a) Mismanagement of farmers co-operative societies due to lack of qualified professionals
(b) Weather increasingly unpredictable
(c) Price incentive due to purchase of large volumes

(v) Government of Kenya

(a) Unpredictable migratory pests forecast
(b) Budgetary consideration
(c) Tendering bureaucracy
(d) Re-formulation & Shelf Life extension

Mitigation Factors

(i) Importers/Suppliers

(a) Importers and suppliers to put systems in place that will help in proper planning for the use of products for a given period (probably 1 year). This will help in the importation and use of products in an efficient manner and will minimize obstocks that are realized due to over importation, change of weather, user and export market demand pattern.
(b) Importers and suppliers to make increased use of weather forecasting data in order to also have effective and accurate planning.
(c) All products imported into the country to have a minimum of 2/3 shelf.
(d) Importers/suppliers to promote responsible salesmanship. Importers/suppliers who do not promote responsible salesmanship will be forced to take responsibility of Obstocks that result from it.
(e) Suppliers to routinely reformulate the products that are near the expiry date in collaboration with the government.

(ii) Distributors / Agrovet outlets.

(a) Responsible Management of consignment stock sale method encouraged.
(b) Proper planning for the distribution of pest control products to be undertaken by the importers, distributors and Agrovet outlets using data on given products.
(c) All distributors to be trained and required to follow the FIFO principle.

(iii) Farmers

(a) Continuous training in IPM and Responsible Use of pest control products.
(b) Proper planning and forecasting on the use of these products.

(iv) Farmers co-operative societies

(a) Societies to elect and employ competent and professional leadership.
(b) Societies to have proper planning and forecasting on use of the products.

(v) Government of Kenya

Proper planning and forecasting

Pest Control Products Board

(i) The Pest Control Products Board to play its supervisory role in the pesticide lifecycle.
(ii)To issue guidelines on reformulation and shelf life extension

Enhancing capacity in disposal.

Conclusion

All the stakeholders in the pesticide industry are therefore encouraged to be part and participate in systems proposed to manage obsolete pesticides and related wastes in order to reduce environmental and human risk.

Turning a New Leaf *By Caroline Nderitu HSC*

Ms. Carol Nderitu

We are in the business
Of stress
We address stress
Before it finds your farm's address
Our business is to keep you in business

We are in the business
Of mess
We address the mess that is
And the mess that can be, before it is

We are in the business
Of less
Less worries, more success stories
Less gloom, more bloom
Less environmental degradation,
More flower production

While you...
You are in the business
Of progress, success
You are in the business of growing, and of growth
And that growth
Your growth, our concern
So leave mess, to the mess people
It's that simple

We have aphids and thrips for breakfast
So that your crops won't have to
At lunch,
We have mildew
For stew
So that your plants won't have to
We have blight and wilt for dinner
So that your shamba won't have to
so that at the end of the day,
You are the winner

So, when your uninvited visitors are a pest
Let us be your invited guest

We are in the business
Of pitfalls
We prevent pitfalls
When crop production is in free fall
When rose stems no longer stand tall
When root-growth hits a wall
Whenever, whatever may crop up,
We are on call

To give your roses and French beans a chance
Milestone will go the extra mile and leave no stone unturned

Those stubborn army worms
You have borne for so long before...
Let **Escort**, escort them out of your farm

Should the rot and spots and botrytis begin to run amok
lock them out of your farm
With **Megaprode Lock**
Allows you to take the gloom
From your bloom
Presento will you nip
Bollworms and whiteflies in the bud

Taurus will get you
To the top
With produce that
Is the cream of the crop

Integra is the wetter-spreader
That gives the best price for value
And the best value for the price
Your spray will go a long way

With **Trumpet** your farm
Has the best IPM partner
And we are not just blowing our own trumpet

So when you set off each morning
As you and blow into your hands
As you set off to meet the land's demands
You can look forward to the day's reward

For we are in the business
Of stress
We address stress
Before it finds your farm's address
We put the "free", in stress-free farming
Our business is to keep you in business

We are in the business
Of mess
We address the mess that is
And the mess that can be, before it is
We take the mess
And leave you mesmerized
That's our message

You are in the business
Of progress
And no less
So leave your mess with the mess people
It's that simple

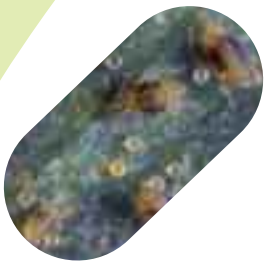
We are in the business of
corticium
fusarium
mycelium
helminthosporium
And what-ever-else-ium

So, when your uninvited visitors are a pest
Let us be your invited guest

Allow our business to grow your business
Your growth is our concern!

6

Integra®



INTEGRA®
INTEGRA® is a duly registered organosilicone based wetter / spreader and foliar uptake enhancer for crops as Vegetables, Fruits and Ornamentals. It's developed by combining the better of the two most important words to growers: quality and price. This high value organosilicon product is the best that grower's money can buy. It increases pesticide efficiency stability, distribution and penetration of chemicals and fertilizers and reduce run-off plant treated areas.

Uniquely balanced nutrients:
INTEGRA® provides in one formulation the following properties that every grower desires: Wetting, Spreading and increased foliar uptake.
Physico – chemical properties:
Appearance: Transparent liquid or light amber liquid
Surface tension: (0.1%Wt): 20.0 - 22.5mN/m
Specific Gravity (25°C): 1.010 - 1.015g/cm3
Viscosity (25°C): 20 - 40mPa.S
Cloud point (0.1%Wt aqueous solution) : <10°C

How it works
INTEGRA® is a crop supplement which contains Silicone for use with Pesticides.
The lipoprotein matrix of the insect cuticle and Powderly mildew are disrupted when the lipophilic carbons of INTEGRA® moeity and pesticides penetrate it. This results in evacuation of cellular contents, causing the cells to dehydrate and die. INTEGRA in combination with pesticides also disrupts the cuticle of soft-bodied insects (e.g. aphids, whiteflies, and thrips) which makes them vulnerable to dehydration.

INTEGRA® helps to nourish and bio activate the plant, increasing cell wall stability and speeding up root cell replication. These helps to build stronger and more extensive rooting systems, increasing nutrient absorption and helps plant to resist stress and drought.
INTEGRA® acts as a balancing and buffering substance that also helps your plants to deal with potentially toxic levels of minerals, salts and pollutants.

Rates of application

Recommended Crops	Amount of Integra®	Application interval
Roses, Carnations, Hypericum, other Ornamentals, Vegetables, Wheat, Barley, Mangoes, Passion fruit and other crops	100 - 200ml / Ha (1-2ml/20lt water) (0.1–0.2ml per litre of water)	10-14 days

Benefits
It quickly and thoroughly enhances other products wetting and spreading, penetrability, dispersabity, absorption and translocation on the plant. The spreading area and speed of the foliar uptake of other molecules on the leaf surface is thus increased greatly. On waxy surface, INTEGRA can infiltrate and penetrate the plant's stomata's, thus moisten them quickly.

Confronting Protectionism : Keeping Markets open in times of economic crisis

The world trading system is facing three concurrent and global challenges: How to cope with the financial and economic crisis, climate change and how to address food security concerns. Keeping markets open and preserving a rule based trading system is of great importance. Notwithstanding its imperfections, the present system has contributed enormously in generating growth and promoting welfare in the last 50 years.

Trade impact of financial and economic crisis

Global GDP was expected to fall 2% , down from 1.7% growth and 3.5% growth in 2007. WTO forecasts a 10% decline of world trade in 2009, down from 2% growth in 2008 and 6% in 2007. A 10% increase in trade is associated with 3 to 4% increase in per capita income! Merchandise volume and values both declined sharply. Old economy hardest hit: automobiles, steel, iron, ore. World demand of cars dropped by half. Iron and steel - 40%. Developed were economies hit harder, especially large exporters (Germany, Japan) but no evidence of decoupling,

Major factors in decline of international trade

• Most of the decline due to drop in demand on the part of developed economies. Collapse of real economy due to increased economic uncertainty and lack of confidence by business and consumers.
• Global supply chains part of the explanation to the depth of the decline in trade. Multiplier effect. Intermediate goods account for 30% of world trade (2008)
• Decreased availability of trade finance is also a factor.

Investment impact of financial and economic crisis

There was a 14% decline of global FDI flows in 2008 and it was anticipated that there will be a 30-40% decline. Inflows in OECD countries could fall even more dramatically. Cross border investment typically more are volatile than trade.

According to UNCTAD global FDI inflows it was anticipated to fall to below 1.2 trillion US$ down from 1.7 trillion. Declines in all three components of FDI: equity investments, reinvested earnings and intra company loans. Due to smaller volumes of M&A, lower profits of foreign affiliates and restructuring of parent companies.

G20 pledges. Broken promises?

• G20 (Washington, London, Pittsburg) : commitment to refrain from raising new barriers to investment or to trade in goods or services, imposing new export restrictions or implementing WTO inconsistent measures to stimulate exports
• G20 commitment to minimize any negative impact on trade and investment of domestic policy action including fiscal policy and action in support of financial institutions. No retreat to financial protectionism.
• Reporting commitment to WTO and other international bodies.
• Commitment to take whatever steps to promote and facilitate trade and investment.
• Commitment for successful conclusion of Doha Round.

Trade and trade related measures

There are two recent reports: OECD/WTO/UNCTAD and Global Trade Alert. According to OECD/WTO/UNCTAD no indication of descent into high intensity protectionism like the “beggar-thy-neighbor policies of the 30ties”. Policy slippage since the beginning of the crisis. Risk that countries continue to cede ground to protectionist pressures. Crisis may create legacy of uncompetitive industries and sectoral overcapacity. Incremental build up of sand in the gears of international trade.

According to Global Trade Alert (GTA) serial violation of G20 pledges, widespread harm by discriminatory state measures, protectionist juggernaut continues. Glass

Packaged to the Market Place; Markets Should be Kept Open

half full or half empty.

The Impact assessment is that Intensity of trade restricting measures is not comparable to 30ties. WTO disciplines (and G20 pledges?) have constrained governments to cede ground to protectionist pressures.

Many measures may restrict trade but are WTO compatible, like raising tariffs within the "water" between applied rates and consolidated rates. Nobody can deny that protectionist measures are on the rise, that most of them occur in G20 countries and that rising unemployment tends to aggravate the situation. Again, there is no reason for complacency.

Outlook for 2009 and 2010
GDP growth is picking up but recovery is sluggish. Stubbornly high unemployment will be drag on economy for some time to come. Unemployment may be rising. Output and trade from developing economies may rebound faster, especially in Asia, but risks remain.
Much depends on business practices (global supply chains) and government policies. Exit strategies from monetary and fiscal stimulus packages. There are global imbalances. And excess of financial resources. Rebalancing will require less reliance on external demand for exporters and the opposite for net importers.

(US/China) Policy responses

- Containment through WTO disciplines.
- Monitoring and peer pressure: WTO, OECD and G20.
- Coordinated exit strategies from monetary and fiscal stimulus measures.
- Huge excess capacity in car industry!
- Adjustment measures for job losses.
- Spreading the global benefits of trade.

Unfortunately benefits of trade are wide and diffused while benefits of protectionism are wide and narrow.

- Most effective policy response at this stage would be a speedy and successful conclusion of the Doha Round.
- Strengthening international architecture of cooperation. (G20) Completing the Doha Round.

There are three major reasons for completing the Round:

1. Pocket benefits of negotiations so far (tariff cuts, subsidy cuts)
2. Constrain scope for legal protectionism.
3. Avoid systemic costs of failure.

What is on the table would substantially reduce "water" between consolidated and applied rates (both industrial and agriculture) and substantially reduce the permitted levels of domestic subsidies in agriculture while eliminating export subsidies.

It would also consolidate trade liberalization in services. We have seen the importance of consolidation in the present economic crisis. It would also entail actual further trade liberalization by improved market access in agriculture (through reduced tariffs and increased import quota's) and NAMA and benefits through trade facilitation. Updated rules will strengthen trading system. Above all, it will give the political signal to keep markets open.

So close and yet so far

According to Lamy 80% of the negotiations are practically done. What remains to be done is less a technical problem than a political one. Negotiations in Geneva are in a stalemate mainly due to the domestic situation in the US. Trade promotion

authority (TPA) expired more than two years ago. The US Congress not likely to grant new one. US administration is too much occupied with health reform, climate change and economic recovery. Trade is on the backburner. Difficulty to pass bilateral trade agreements. Paradoxically developing countries –which were reluctant in first instance-are now strong advocates of concluding the Round. Window of opportunity for doing so is closing down.

Trade and climate change

The search for solutions to global warming may have significant consequences for production and trade. Actions to address climate change may have trade implications having been explicitly recognized in UN Framework Convention (1992) on Climate Change and Kyoto Protocol (1997). Parties cautioned that "measures taken to combat climate change, including unilateral ones, should not constitute means of arbitrary and unjustifiable discrimination or a disguised restriction to international trade". Failure to agree on an international climate change regime in the Copenhagen process would entail all kinds of trade restricting unilateral measures and ultimately a process of retaliation and contra retaliation.

Domestic policy measures

Convention and Protocol set targets that countries much reach through domestic policies and international cooperation. Neither agreement mandates specific domestic policies or measures. Many of the implemented domestic policies/measures may have trade implications and have an adverse effect on international trade.

The present financial / economic crisis may force governments to cede ground to protectionist pressures in the climate change context. Some of the measures under consideration -notably border tax adjustments (BAT's) - may lead to considerable trade friction and even disrupt international climate change negotiations.

Three categories of measures:

Regulatory, fiscal and market based and incentive measures. A great many WTO rules and agreements come into play.

Some examples

- Energy efficiency standards have been introduced in many countries, both developed and developing. WTO TBT Agreement prohibits standards that create unnecessary obstacles to trade. Doubts on the compatibility of non product related production and process methods (PPM's).
- Renewable energy policy measures may involve subsidies that raise trade concerns.
- Subsidies and domestic support mechanism have to be considered under SCM Agreement.
- It remains unclear under which condition there may be a subsidy element in the allocation of emission allowances in emission trading systems ETS.

Carbon leakage and border measures

International competitiveness has come recently to the fore in the political debate on climate change negotiations. Strongly contested by developing countries referring to the principle of "common but differentiated responsibilities". Countries with stringent mitigation obligations worry that this may effect the international competitiveness of their carbon and energy intensive industries (steel, aluminum, cement). Concerns on relocation of such industries to countries without such obligations.

Embodied carbon in trade.

About one fifth to one quarter of Chinese carbon emissions can be directly attributed to the production of exported goods. Call for competitiveness provisions like carbon offsetting allowances and exceptions and border tax adjustments. WTO compatibility on the latter questionable, retaliation by other countries virtually assured.

Adapting the WTO rulebook

Many climate change related measures fall in the grey zone of WTO rules. To what extent public policy exceptions (art.XX) apply? What about non product related PPM's? It is in first instance the task of the international climate change negotiations to establish a clear set of international rules.

Kenyan Growers At A Marketing Trade Fair

Subsequently, the WTO can adapt its rule book. For example dealing with fossil fuel subsidies and the differential treatment of clean energy. One may need an agreement on energy like the agreement on agriculture.

The green box rules may have to be adapted. One may have to provide rules for carbon trade. In the mean time one should avoid to take advantage of climate change measures in order to restrict trade. A moratorium on dispute settlement cases may be considered cfr. Peace Clause in agriculture in UR:

Food security and trade

The food price crisis has triggered off all kinds of export restrictions and export taxes causing hardship and suffering in net food importing countries and among the poorest. Commodity prices have fallen considerably from their peak last year but these lower food prices have not translated in lower food prices in poor countries.

The number of undernourished people in the world has been raised to up to 1 billion. Since the end of 2008 some 70 countries, including EU, implemented new measures to restrict trade in agriculture. The impact of the financial crisis on trade financing has further aggravated the situation.

Global challenges of the agricultural sector

1) To provide food security for an ever growing world population (over 9 billion in 2050), increased purchasing power in emerging economies (China, India) and changing diets. This may require a doubling of food production by as early as 2030.
2) Increasing demand for agricultural feed stocks from the biofuel industry. (30% of US corn goes to ethanol!)
3) Contribute to poverty alleviation as 70% of the worlds poorest live in rural areas and rely on agriculture.
4) Climate change will modify global and local food security vulnerability patterns.
5) Role of agriculture in mitigation policies and in safeguarding environment.
6) Severe constraints on arable land and water.

An open trade system

An open trade system for agriculture is vital to meet the challenges of food security and climate change. More than half of the world population will soon be living in urban centers. Only a few countries have sufficient available land, suitable climate and water resources to rely totally on their own production. At most 12% arable land available worldwide, mainly in Africa and South America. Meeting future world food demand will require huge increase in productivity worldwide. It also requires producing more with much less water.

Trade of food and agricultural products will be crucial to compensate climatic offsets of production due to climate change.

Policy Responses

In the global food system we see a shift from a supply driven agricultural economy to a demand driven one. Increased demand and reduced subsidies will lead to structurally higher prices in the mid- and longer term. (FAO / OECD) Higher commodity prices offer an opportunity for productivity increases and agricultural reform in developing countries.

Developing countries, development agencies and the donor community should prioritize agricultural reform. Agricultural reform and mitigation efforts should go hand in hand. High food prices must not be tackled through export restrictions. Purchasing power assistance in net food importing countries is a better alternative.

Price chocks should also be addressed at international level through reserve stocks mechanisms. Substantial support for adaptation policies in developing countries Concluding Doha Round Food security requires an open and equitable global food system. Concluding the Doha Round will bring benefits to both exporting and net food importing countries. Market access opportunities in agriculture may generate growth and alleviate poverty in the poor countries.

Reduced domestic subsidies will reduce distortions in international trade. Open trade has to go hand in hand with agricultural reform and productivity increases and appropriate development assistance. A rule based trading system should safeguard the position of developing countries and counter protectionist pressures Beyond Doha.

The new agenda is already there: trade implications of climate change policies, food security concerns, non trade concerns like environment, food safety and labor. Keeping markets open in times of economic crisis will require enhanced international efforts of cooperation and peer pressure.

International cooperation architecture may have to be adapted. WTO rule book has to be adapted as well. Can that be done without institutional reform (member driven, single undertaking, consensus)? What can be the role of sectoral and plurilateral agreements? Relation between Regional Trade Agreements (RTA's) and multilateral trade liberalization.

Growers Shopping for the right varieties for their market

Respect for Vase Life in the Post-harvest Period

Packing Fresh Produce in an Air Craft; A Critical Stage to Maintain Quality.

The effect genetic, physiological, environmental and mechanical factors have on vase life have to be appreciated to ensure appropriate action is undertaken during the harvest, storage, packing and transport of cut flowers, particularly under tropical and subtropical climatic conditions.

Cut flower harvesting should be undertaken under optimal conditions such as cool temperature and sufficient humidity associated with early morning weather. The harvested flowers should be put immediately in water containing preservatives and, if necessary, protected against water loss by shielding them from direct sun and air currents.

In adverse weather, it is advisable to roll flowers loosely in wet cloth and immerse them as one bundle in a bucket with ample water. The depth of the water should be at least 15cm (this may be less when conditions are better) since it is important that all flower stems ends are all at the same level.

Flowers should be transported fast to a cool place with high humidity and no strong air currents within half an hour after harvest. Temperatures of 6 to 8 degrees Celsius are sufficient to cool down the flowers.

Be aware that entry of large amounts of flowers in a short time span may increase the temperature in the storage so set the temperature then temporarily lower.

Flowers are stored in a low temperature environment to slow down life activities like respiration and transpiration, which sap energy and water through the stem. When flowers are taken out of the pre-cooling site to the grading hall with a higher temperature, they may condense. Avoid this by reducing the temperature difference between pre-cooling and grading. If necessary, do the grading/packing in the cool storage itself.

Container cleanliness

Throughout the whole post harvest process and distribution logistics, the main challenges are low temperatures and re-hydration, although re-hydration is minimal. Water uptake of flower stems is easily affected by obstruction of the channels in the flower stems by bacteria and other organisms.

All buckets and other water containers for flower storage should be disinfected after use, at least once a day, preferably after every harvest. Disinfection, ideally with a chlorine based product, is of no use if cleaning / scrubbing is not done thoroughly. Water containing preservatives can be collected and re-used after cleaning the buckets.

Remember that, higher temperatures promote rapid spreading of infection. Therefore, bacterial levels as indicated by European standards are too high for warmer climates. Use cold water for preparing flower containers for next day's harvest and leaving the water to cool overnight. Bring the pH of the water down to between pH 3 or 4 with citric acid and use flower preservatives.

If you know the buyer, ask him his wishes and requirements on this matter. Flower preservatives are based on control of

bacterial growth, protection against blockage of the channels in the flower stem and nutrients (also sugar) for the flower.

If flowers are put in fresh water (with preservatives and nutrients) again after grading and bunching, make sure that all flower ends are cut beforehand. Use sharp and good quality bunch cutters. Remove any initial infection or blockage at the stem bottom.

Grading process

Nature is known for its diversity. Crops of a stable variety and especially plants from tissue culture may produce standard flowers, but there will still be some differences. Flower quality is determined by the segment of the market they are sold in. A buyer who prefers a slightly open flower will not be pleased with tightly closed flowers, which bloom after three days, and vice-versa.

Therefore, precise grading and separate packing is necessary. Colour, size, opening stage, stem-length and thickness, number of flowers per stem (e.g. Lilium) and setting of flowers (e.g. Molucella) are all important. Make sure that the grading tables are clean and dry. Wet flower heads or stems will easily develop botrytis.

Do not let water drip from flowers picked from one bucket into those in another.Work out appropriate logistics, which ensure a smooth flow in the grading process to avoid unnecessary movements of the flowers from one end to the other or stagnating large heaps of flowers at any point in the process. This causes damage of flowers at any point in the process and unnecessarily delays the return to the cool storage point.

Mechanical damage

To avoid any damage to the flowers during post-harvest handling, harvest small quantities on the arm and put these together in a bucket.

Do not repeatedly push in small quantities of flower stems in the same bucket, thereby breaking leaves. Put buckets together on pallets or transport cars sideways and not from above. Do not put buckets tightly together during pre-cooling in order to avoid damage and allow for sufficient ventilation. Put flowers and bunches on tables with a smooth downward movement to avoid breaking of leaves. Avoid large heaps of flowers or bunches. Bunch and pack tightly without squeezing of leaves or flowers.

Before pressing down the top of the box, ensure bunches are placed precisely as in a puzzle or mosaic. Only cooled flowers are packed in boxes. Also drain out any residual water from the flowers before packing them in boxes. If the boxes contain holes on the sides, leave them open till shipping. Before loading close these holes with a wad of newspaper to avoid entry of warmer air during transport.

If the cold chain is uninterrupted, holes can be left open, but often this is not realistic. While awaiting loading onto a plane the outside warm air may cause flowers and the box to condense. If a cool chain is non-existent (local transport) and transportation takes many hours, leave the holes open, keep the flowers out of the sun and in cooler places while trying to minimize transportation time.

The logic behind this is that the respiration generates heat, hence temperature in the boxes go up easily to over 40 degrees Celsius. Air is required for respiration and to avoid over-heating. Be aware that certain flowers grow in boxes and under influence of geography.

Flower heads (anemones) or flower tips (gladioli, molucella) grow upwards. Wrap them properly. In the old fashioned marketing of anemones in The Netherlands, flowers were transported and traded standing in baskets. Gladioli in Colombia and other countries are put in large bundles (100 or 144 stems) and handled in vertical position.

Post harvest materials

Cutting tools – Although certain flowers can be broken out from the heart of the plant (gerbera, limoniums, ranunculus and others), most flowers are cut by knife and some harder stems (roses) by secateurs. Tools have to be sharp to ensure a clean cut, which reduces risk of infection due to squeezing of stem ends and avoid pulling up smaller plants, e.g. scabiosa, Trachelium.

Transport material- There should be appropriate space, fitting a number of buckets, avoiding toppling over and pathways should be in good condition to avoid heavily shaking of flower stems and thereby brushing against each other. Good transport also speeds the transfer to the cool storage.

Cool storage – Air-circulation should reach every corner of the storage. This is not produced by simulating a storm, but by well-distributed air flows, often a specialist job. Take care that the air flows are not blocked by buckets or boxes.

Place containers on pallets and leave space between the ceiling and flowers to allow air flows to circulate under and over the stored materials. Humidity levels are equally important. Be careful with condensation on the flowers standing close to the door.

A plastic strip-curtain or air curtain will give sufficient protection against this. Do not keep old flowers, and keep the floor clean from plant materials; it all produces enthylene. Clean the cool storage once a week with water containing chlorine.

Preservative and feeding – Preservatives and chlorines are disinfecting products that keep the development of organisms in the water low. Different products are used by different wholesale organizations. Studies have shown that the addition of 3 to 5% of sugar to the water provides the flowers with some nutrients (carbohydrates) and better vase life results.

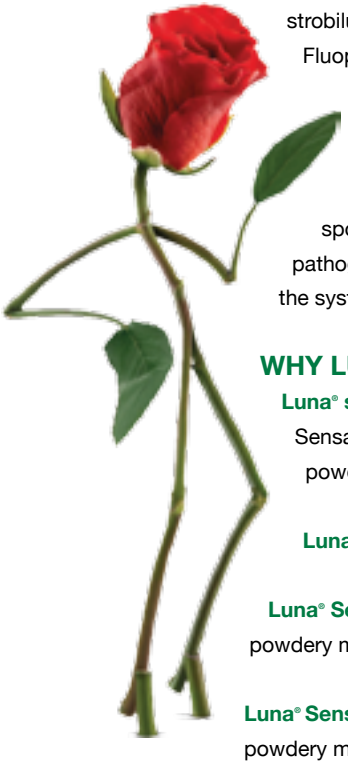
Containers – These should be manufactured of a material resistant to acids and chemicals, e.g. fibreglass with resistant resins, good plastics or stainless steel. The surfaces have to be smooth to enable easy cleaning and disinfecting.

Packing material – This should have a high density and flower wraps and boxes

LUNA® SENSATION: A NEW AND UNIQUE CHEMICAL CLASS OF FUNGICIDES

Fluopyram 250g and Trifloxystrobin 250g per litre
Suspension concentrate (SC) Formulation

MODE OF ACTION



Luna® Sensation belongs to a new and unique chemical class of fungicides- pyridinyl ethyl benzamide and strobilurins. It differs from other fungicides in its chemistry and in the spectrum of diseases it controls. Fluopyram mode of action is as a SDHI (succinate dehydrogenase inhibitor), blocking the energy production in the cells of the fungus. Trifloxystrobin is a respiratory inhibitor, interrupting the electron transfer within the mitochondria of fungal cells.

Luna® Sensation inhibits disease development at multiple stages from spore germination to sporulation. It inhibits spore germination, germ tube elongation, mycelia growth and sporulation in the pathogen life cycle. It combines the contact, mesostemic and translaminar properties of Trifloxystrobin and the systemic and translaminar properties of Fluopyram.

WHY LUNA® SENSATION?

Luna® sensation offers a new way to protect flowers from disease as well as resistance management. Luna® Sensation has a unique chemistry and systemic mode of action that provides unprecedented control of powdery mildew and botrytis diseases to help growers deliver the best possible flowers.

Luna® Sensation has excellent protection at low dose rates and has a favorable ecotoxological profile.

Luna® Sensation controls powdery mildew, botrytis and postharvest diseases, giving excellent control of powdery mildew and botrytis.

Luna® Sensation helps growers deliver high quality flowers at harvest and in postharvest by protecting against powdery mildew and bortrytis diseases.

PRODUCT KEY BENEFITS

Exceptional Efficacy - During the three season trial period, Luna® sensation, provided superior powdery mildew disease control and management on roses than the current market standards

Systemic Movement – Uniform uptake after application enables Luna® to enter the buds, blooms and new tissue where disease hides.

New Chemistry - Novel active ingredient and duo mode action works to continue controlling fungal strains.

Extended protection - Demonstrated improvements in plant health and on flower quality and vase life.

Resistance Management - Luna® Sensation provides superior disease management as well as useful tool for preventing and managing fungicide resistance.

Compatibility with Beneficials - Luna® Sensation is safe to beneficial athropods. Luna® Sensation was found to be compatible with IPM programs when used with phytoseiulus persimillis and other biological control agents.

Quality of flowers - Luna® Sensation helps to keep crops disease-free and ensures that the flower's high quality will be maintained through storage and transport.

RE-ENTRY PERIOD: 6 HRS (WHO CLASS III)

As a general rule, treated areas should not be entered before spray deposits on the leaf surface have dried, unless protective clothing is worn.

Relaxed and loving life!

Luna® SENSATION

Bayer CropScience is proud to present you with an outstanding new fungicide, whose unparalleled efficacy on problematic diseases leads to:

- Improved flower quality
- Longer vase-life
- Improved storability
- Increased marketability

Bayer CropScience

should be protected against water. The sides of the boxes have to be strong since they take load of the boxes on top, not the flowers in the boxes. Store these materials in dry places. For marketing reasons keep them clean and dry. White boxes give an extra image, but only when clean. Factors to appreciate considering the genetic factor, certain species and varieties are suited to cut flower use.

They have the ability to complete an ageing process in water after harvest; are capable of recovering from stress caused by harvest and post harvest circumstances, e.g. packing and transport, and take up water for a period of one to three weeks, sometimes with a performance comparable to growing plants. Even those genetically selected for cut flower use, however, depend on many non-genetic factors. There are physiological factors involving the condition of the flower at the point of harvest. Plants or stems either affected by pests or diseases or suffering deficiencies/ surpluses in nutrients, water, light, temperatures etc. produce weakened flowers. Be aware that the latter can be difficult to detect in the plant at an early stage. This may also be the case with certain diseases, e.g. pythium, Fussarium and nematodes.

Further, while some physiological functions continue partially or in full after harvest, e.g. transpiration/ photosynthesis and the natural ageing processes, obviously others like the pressure and selective uptake control by roots and the flow of hormones/ biochemicals are interrupted.

Environment conditions affect these physiological functions, hence often vase-life. Local ambient climates, inside or outside the greenhouse, are often far from optimal for fresh cut flowers. High temperatures and low humidity often being the reality instead of the desired cool temperatures and high humidity to slow down water loss.

The demand for water after harvest is high. The first water uptake is important and should not be restricted; chemical substances or organisms in the water may quickly interrupt the flow in the stem. Often in the dark, where photosynthesis does not take place, metabolic processes reduce reserves (carbohydrates) in the stems and leaves.

Any mechanical damage to the flower stems by rubbing, brushing or breaking has a negative effect on the duration of the vase life. It also may induce further decay by fungi or bacteria during storage and transport. Decaying plant tissue produces

KENYA SHIPS 30 TONNES OF TOXIC PESTICIDES TO THE UK FOR DESTRUCTION

Kenya does not have the capacity to destroy 205 tonnes of obsolete chemicals that are a threat to human health and will have to reship them to the UK for destruction. “The country has only ten incinerators that can hardly meet the bare minimum standards required to dispose of waste,” Samuel Munene, a waste management official at the National Environment Management Authority (Nema) said.

The ten incinerators are hardly suitable for disposing chemical waste used in agriculture. Fungicides primarily used in the horticulture industry, comprise the bulk of these obsolete pesticide waste. Up to 205 metric tonnes of this waste has so far been identified, out of which 30 tonnes have been taken for destruction in the UK, with assistance from the Food and Agriculture Organization.

The project to identify and collect obsolete pesticides in Kenya, called Clean Farm, began in 2008 involving the Ministry of Agriculture, the Pest Control Product Board and CropLife Kenya.

The project, which cost Sh.86 million, recently carried out an inventory of obsolete pesticides and related waste and assessed their harm to human health. “Its obsolete stocks are securely stored at a temporary storage facility at Kabete,” explained Dr. Wison Songa, Secretary, Agriculture Ministry.

Even though it would be safer to install highly effective incinerators in the country, experts say this does not make much economic sense because they are very expensive to put up and maintain. According to Mr. David Laycock, The project manager said a single incinerator costs Sh. 110.4 billion. “Kenya does not generate much waste to warrant such a facility, unlike a country such as the UK,” he says.

He adds that the main health concern with the toxic waste is that it can contaminate drinking water, through discarded empty bottles. At the moment, Kenya utilizes about 400,000 tonnes of various pest control products, worth sh.7billion, according to Dr.Songa.

The country has 51 trained persons in identification, assessment and safekeeping of obsolete pesticides. These include six from the Ministry of Agriculture and the Agrochemical Association of Kenya (AAK).

According to the AAK, chemical exposure causes developmental disorders in children, cancers, poisoning, cardiovascular effects etc. Of the pesticide imports into the country, 2,900 metric tonnes are insecticides, fungicides, herbicides fumigants and rodenticides.

Trade Show	Date	Vanue
1. World Floral Expo 2013	March 13-15	New York, USA
2. HortiFlora Ethiopia 2013	March 20-22	Addis Ababa, Ethiopia.
3. IFTEX Kenya 2013	June 5-7	Nairobi, Kenya.
4. Flowers Expo	August 28-31	Moscow, Russia.
5. Naivasha Horti Fair 2013	September 20-21	Naivasha , Kenya
6. IFTF Expo	November 6-8	Vijfhuizen, Holland.

Jubilation As Greenlife Crop Protection Africa Limited (Gcpal) Is Born

Mrs Gladys Maina, CEO, Pestcide Control Produce Board Officially Launching Greenlife Crop Protection Africa Ltd

Growers preparing their procurement lists will have many options to choose from including products from a newly launched agrochemical company. It was pomp and dance in a Naivasha hotel as Greenlife Crop Protection Africa Limited (GCPAL) was unveiled.

Equipped with advanced technologies, skilled professional staff and the right infrastructure to promote operating efficiencies, Greenlife Crop Protection Africa Limited (GCPAL) has the capacity to service Kenya's growing Agrochemical needs.

Greenlife Crop Protection Africa Limited (GCPAL) a leading agrochemical company has officially opened its in Kenya's Capital City, Nairobi.

Located off Mombasa Rd, the establishment is in line with their new strategic investment growth in region, the company seeks to meet the growing demand for quality agrochemical products and services in the markets.

Speaking during the Launch of the company, Pest Control Produce Board Chief Executive Officer, Mrs. Gladys Maina expressed his board's satisfaction at the successful; launch of the company which will enable it to supply the Kenyan market with its range of registered quality products.

"The products lined in front of you today are duly registered and that is why I have joined you today in this ceremony to officiate the launch of Greenlife Crop Protection Africa Limited (GCPAL)". Causing laughter, she added, "If they were not registered, this platform would have given us the best opportunity for me to send my officers to arrest them in your presence. This would prove to you how serious as a government we are to those selling and using unregistered products".

"Greenlife Crop Protection Africa Limited (GCPAL) is keeping abreast of market demand, whilst maintaining the highest standards of operation demanded by the government. We keep a hawk's eye on products as guided by the stringent international standards and Greenlife Crop Protection Africa Limited (GCPAL) has been able to keep them," she said. She further added, "PCPB has been ranked among the best in terms of quality parameters. We are aligned not only to the Kenyan standards but also International European standards." Greenlife Crop Protection Africa Limited (GCPAL) entry into the Kenyan market not only offers growers additional choice of agrochemical products, but also offers additional value for money.

Mrs. Maina was accompanied by Agrochemical Association of Kenya Chief Executive Mr. Richard Shikuku who expressed confidence in the Products the new company will offer in the region, noting that this is as a key pillar in the success of the local industry.

In a more theatrical way, Mr Joseph Muli detailed how some of their different products have been proved and recognized as ideal products in Integrated Pest Management Programmes the world over. "Our products are safe to the user and do not harm beneficial insects (predators, parasites and pollinators). They are eco-friendly and do not affect fish, livestock, poultry and birds. More importantly, we are a firm that prides itself in having a strong sense of responsibility towards safeguarding the environment," he said. "Speaking exclusively to Floriculture Magazine during the launch, Mr. Sikuku, said Kenya was the leading flower exporter to the European markets. "If the presentation given is translated into facts, then Kenya is bound to gain more", he said, commenting on Greenlife Crop Protection Africa Limited (GCPAL)

Carol shares a Joke with one of the attendants

A humurous Moment for Mrs Maina, Mr. Muli and Mr. Sankale

A Display of Greenlife Crop Protecion Africa Ltd. Products

Time to Learn: Part of the crowd following the presentations during the Launch.

Ever Smiling: GCPAL Customer Service Executives Triplets.

Mrs Maina Issues a Certificate to one of the Attendants

Attentive Fukk House following the presentations

expected contribution to horticultural productivity. Mr. Sikuku added, "Their products have undergone rigorous trials and I'm sure before they convinced PCPB, the facts must have spoken for themselves." In addition, he said, "This is the best thing I have heard today, an environmentally friendly company is a positive step towards attaining global standards."

Most of those interviewed or consulted by this bi-monthly magazine represented a cross-section of people from all sub-sectors of the horticultural business and they believed the launch of Greenlife Crop Protection Africa Limited (GCPAL would be of major commercial advantage to them. "I have used their products before and for sure they are good," said Mr. Njogu of harvest flowers. Similar sentiments were expressed by Ms. Purity Njue Farm Manager, Gorge Farm- Naivasha Vegpro Group, describing some of their products as cost effective.

Others who attended the launch included Simeon Doytchinov Sales Manager Africa, Europe and Middle East Agria SA Bulgaria, one of their principals, representatives from government institutions, across section of senior managers from flower, fruits and vegetables farms, research institutions and Institutes of higher learning.

In his closing remarks, Mr. Muli said, "Our company will be sensitive to our customers and the public at large, recognizing our duty for upholding the highest degree of professional ethics and code of practice".

From the Desk of Floriculture Manager

I take this opportunity to welcome you again to the Greenlife Crop Protection Africa Limited (GCPAL) launch event; we are indeed honoured to be with you tonight. Today marks an important milestone in our history and commitment not only to East Africa but Africa as a whole.

We will strive to bring you benefits not just products. We will not sell products we will provide solutions to enhance productivity per unit area. We will not bring you new product; we will package technologies to meet the ever changing dynamics of crop protection.

We will not create customers we will endeavor to create partners. We will not just pursue production of clean crops but we will strive to enhance sustainable production system

Our desire to use our technical

Mr. Joseph Muli, Floriculture Manager

capacity and capabilities to offer you professional and ethical advisory services in crop protection is in no doubt. It is our high expectation that Greenlife Crop Protection Africa Limited (GCPAL) will live to your expectations as world class gold plated chemical company.

"What do we live for, if it is not making life less difficult for each other?" (We will work for a win-win for all). We look forward not just to know you but to relate with you, with bonds that flow with life.

To my colleagues, we have a covenant with our partners to participate and contribute to their success. We will seek your input from time for they say, "You are wise if you know someone out there knows more than you".

To our competitors, "You don't have to blow out the other person's light to let your own shine."

We are humbled, privileged, and honored to be of service to you today, tomorrow, 2014 and in all the years to come as we take this bold step with the Launching of Greenlife Crop Protection Africa Limited (GCPAL)

We are Greenlife Crop Protection Africa Limited (GCPAL) and you are our partners.

Greenlife Crop Protection Africa Limited
Your Growth, Our Concern

Greenlife Crop Protection Africa Limited (GCPAL) is focused on delivering improved profit potential to specialty crop growers through high-value plant health and pest control products that are backed by proven field expertise and service, as well as a commitment to expanding its portfolio of customer solutions in targeted markets around the globe.

Greenlife Crop Protection Africa Limited (GCPAL) a leading provider of crop protection solutions, announced its new identity, structure and initiatives designed to enhance the company's ability to provide growers with innovative, value-driven crop protection products and services.

Formerly known as Greenlife Agrosciences East Africa Ltd, the company was renamed Greenlife Crop Protection Africa Limited (GCPAL) to reflect its long-term strategy, initiatives and investments that will directly support new product formulations, applications, delivery and service. The strategy and initiatives are designed to provide more solutions for business partners and customers, supporting the "brand" name.

With new headquarters and a state-of-the-art Technology Development Center in Nairobi Kenya, Greenlife Crop Protection Africa Limited (GCPAL) is better positioned than ever to serve its customers' unique needs in a wide range of high-value crop markets.

"The Greenlife Crop Protection Africa Limited (GCPAL) business has been successful for many years and has historically experienced continual growth and record success," said George Kariuki. "Our latest move brings us physically closer to many of our partners, and our business plan allows us to build on past successes in ways that will better serve our beloved growers," added Kariuki. Greenlife Crop Protection Africa Limited (GCPAL) is a local company with international operations serving the whole of East Africa. The company combines expertise and proven success in global regulatory standards with the research capabilities and resources to establish new crop labels and pest control options.

"This is truly an exciting time for our company, our employees, our channel partners and our customers," said Kariuki. "The new Greenlife Crop Protection Africa Limited (GCPAL) will build on its past success with a relentless commitment to meet the ever-changing needs of the agricultural industry. This includes long-term portfolio investment for new product development, improved product availability and new options to provide growers increased profit potential," said Kariuki.

Greenlife Crop Protection Africa Limited (GCPAL) staff has deep roots in the agricultural chemical business that reflect many years of growth and innovation. The company's sales and technical representatives have a long history of strong field relationships with researchers, university experts, growers and distributors.

Moving forward, Greenlife Crop Protection Africa Limited (GCPAL) will continue to work in partnership with its strategic partners to establish a presence in research trials and promote product development. As a result, the company will be able to deliver more of what its customers need to grow healthy and productive crops.

Greenlife Crop Protection Africa Limited (GCPAL) is also announcing the formation of a team dedicated exclusively to uncovering industrial sales growth opportunities, called the technical sales team. Kariuki said this will allow the company to take its active ingredients into markets around the region that are not currently being served.

"Expanding our reach into these new markets will ensure Greenlife Crop Protection Africa Limited (GCPAL) maximizes operational efficiency and increases economies of scale for future investments," said Kariuki. "Collectively, all of our new initiatives are designed with one purpose in mind—to provide growers with outstanding value and service."

Greenlife Crop Protection Africa Limited (GCPAL) offers a comprehensive line of fertilizers fungicides, herbicides, insecticides, specialised products, plant growth regulators and seed treatment products that improve the quality and increase yields of specialty crops across the region.

Floriculture Industry Investment In Rwanda

Rwanda is arguably one of the best destinations in the region for horticulture development in terms of excellent Agro-climatical conditions, Governance, Business environment and Institutional support available for pioneer horticultural projects.

The government has made horticulture and floriculture top priority for growth in Rwanda with export objectives of USD 300M per annum by 2017 and is committed to attract key private sector partners and individual investors both foreign and local in their effort to achieve this goal.

To this end, key institutions including National Agricultural Export Board (NAEB), Rwanda Development Board (RAB) and the Rwanda Natural Resources Authority (RNRA) have come together on a common working platform, the Rwanda Horticulture/ Floriculture Development Task Force to attract and facilitate commercial investments in this sector. In this regard, the task force has already identified and earmarked a series of suitable sites in different agro-climatical zones for development of new flower farms and is committed in lifting any barriers to competitiveness of the young Rwanda flower sector. Her high altitude ranging from 1500metres to over 2200 metres above seal level, fertile soils, plenty of rainfall throughout the year, plenty of clean water form numerous rivers and lakes makes it an enviable destination for horticulture development as compared to her neighbours. The infrastructures are well rated and there are at least 7 flights per week to Europe-Amsterdam and Brussels in addition to flights to the region which include Kenya, South Africa, Ethiopia, Congo, Brazzaville, DRC, Gabon, Tanzania, etc. Rwanda will partner Floraholland in the marketing of her envisaged quality flower production and therefore cordially invites Dutch investors to visit the country to learn about and see the opportunities for themselves.

Financing Green Growth in a Resource-Constrained World

The scale and frequency of weather shocks, combined with long-term economic forecasts of climate change effects and fossil fuel costs, are having a political as well as an economic impact.

Many developing country governments are changing their approach to infrastructure and industrial planning, choosing to design more sustainable, resilient pathways to economic growth.

They are developing comprehensive national investment programmes in clean energy, energy efficiency, water management, climate-resilient agriculture, smart grids and low-carbon transport systems. This strategic shift has been termed “greening the economy” or making a “green growth” transition. Currently, significant private investment is not being attracted to these plans due to a range of perceived risks and the relative novelty of the market.

What public-private partnerships can support developing countries to create large-scale, investment-grade blueprints for their green growth strategies?

What new financing mechanisms can use targeted public funds to address key risks and leverage a step change in private capital flow into green infrastructure projects? The scale and frequency of weather shocks, combined with long-term economic forecasts of climate change effects and fossil fuel costs, are having a political as well as an economic impact.

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They are developing comprehensive national investment programmes in clean energy, energy efficiency, water management, climate-resilient agriculture, smart grids and low-carbon transport systems.

2012 export value of Dutch flora is highest ever

The tally for the whole of 2012 is officially in and flower exporters in The Netherlands can indeed look back on a good year: the export value of Dutch flowers and plants has climbed to a never-before-seen total of 5.4 billion euros.

That 5.4 billion euro total represents a 3% improvement over last year's aggregate export value, the Dutch Agricultural Wholesale Board / Flowers and Plants reports. The organization bases itself on definitive export statistics for the flower trade, and its analysis is considered highly authoritative.

Trade was particularly strong in the first half of 2012, while the last six months of the year registered a slow but steady slump. The December month especially proved to be very disappointing, with traders facing a 13% drop in turnover. That partly has to do with the month counting three trade days less than in 2011, however.

The differences between countries as well as the various product groups remain remarkably large. Cut flowers slightly outpaced pot and garden plants: the export value of the former growing by 3% to € 3.3 billion, while the latter rose by almost 2%, for a total of € 2,1 billion.

Packaged For Export.

Geographically, the East and North of Europe performed strongly whereas export to Southern Europe (Italy, Spain, Portugal as well as Greece) kept falling severely.

Number one market Germany showed positive growth, with a 5% plus resulting in an export total of € 1.6 billion. Number two England also performed well, noting a 6% increase (for € 791 million in total).

Flower Council of Holland to Slim Down, Once Again

The Flower Council of Holland is facing a severe reorganization once more, now that Floral Wholesalers Association VGB has reassessed its decision to co-finance the promotional organization. The VGB's withdrawal left only flower auction FloraHolland to finance the promotional organization for the Dutch floriculture sector. Its budget will decrease by roughly 40% as a result: from about 14.5 million euros to just 8 million.

That has left the Flower Council in a state 'resembling a vacuum', the organization states on its website. Management was left with little else to do but to draft another reorganization plan, which the Flower Council's Board will be discussed.

A budget reduction of this size virtually guarantees that employees will have to be laid off, but specifics are not yet known: 'clarity will be sought for staff in the short term', the website statement reads. The current situation marks a watershed moment in the organization of the collective financing of promotion for Dutch flowers and plants, the Flower Council points out.

Production and trade have put money together for generic promotion ever since 1954, but that 'collectivity' has now officially come to an end.

FloraHolland and the flower traders involved in Dutch wholesalers association VGB did agree to a shared participation in the funding of the Flower Council in 2011. Animosity between the two parties came to the fore over the course of last year however, eventually resulting in the VGB withdrawing its support.

This forthcoming reorganization in fact marks the fourth reform for the Flower Council in just as many years.

AMIRAN KENYA PLACES THE ENVIRONMENT AT THE TOP OF ITS AGENDA

Amiran Drip Irrigation, Every Drop Counts

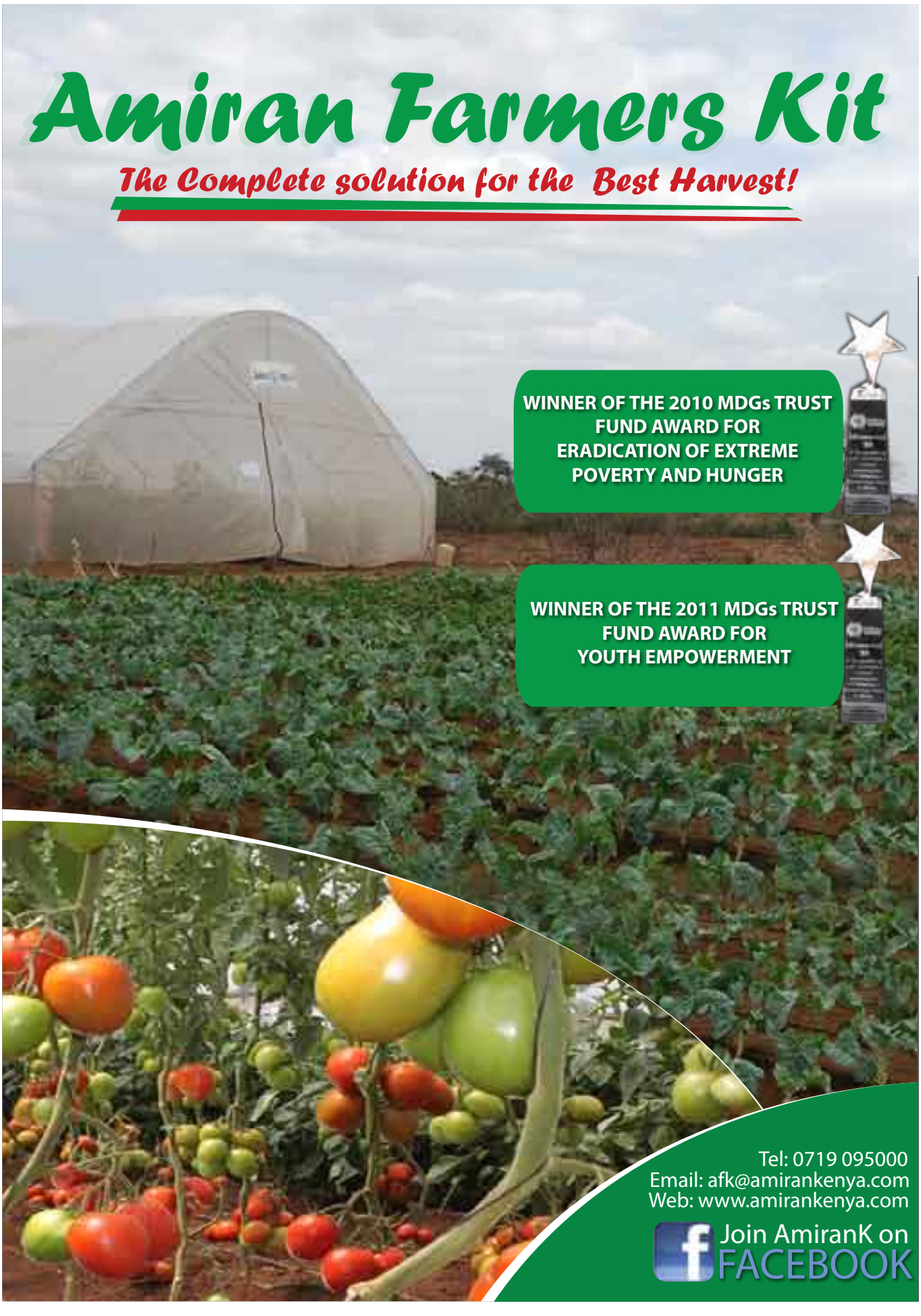
As a link that has made it possible for the Kenyan farmers to enjoy a global array of quality products from world class agricultural leaders, Amiran Kenya has insisted on the need for environmentally friendly products from its suppliers, with an aim of helping Kenya attain its Millennium Development Goal 7 on ensuring environmental sustainability for future generations to also enjoy. Through its products, Amiran is encouraging farmers to preserve the environment while still producing quality produce that contribute to making Kenya a major agricultural hub.

Over the years, Amiran has brought to the flower sector a wide range of environmentally friendly products from leading global leaders, among them, Haifa Chemicals, an Israeli multinational company renowned for its products that fight global warming by reducing emission of greenhouse gases, standing at the world's forefront in development of Clean Development Mechanism (CDM), methodologies for reducing gas emissions into the atmosphere. Haifa Chemicals was one of the first companies in the world to implement the technology, through a process approved and recognized by the United Nations and the European Community as the Best Available Technology (BAT). The project was started in 2007, and the total reduction is expected to reach six million tons in ten years. Instead of emission of nitrogen oxide, Haifa has developed an innovative process for turning the nitrogen oxides from nuisance to resource, by returning it to the production process as raw material. In August 2007 the process received recognition of the European Community as the Best Available Technology (BAT), and being now copied by other nitric acid plants in Europe and worldwide. Thanks to this process, Haifa is the first company to comply with the German air quality standards TA LUFT 2002.

In Kenya, there are regions with fertile soils which experience water challenges either due to unreliable weather patterns or poorly distributed sources of water, making it hard to grow food crops. Many farmers in Kenya have since opted for Amiran's drip irrigation system from Netafim, the Israeli multinational company that invented drip

Amiran Farmers Kit

The Complete solution for the Best Harvest!



WINNER OF THE 2010 MDGs TRUST FUND AWARD FOR ERADICATION OF EXTREME POVERTY AND HUNGER

WINNER OF THE 2011 MDGs TRUST FUND AWARD FOR YOUTH EMPOWERMENT

Tel: 0719 095000
Email: afk@amirankenya.com
Web: www.amirankenya.com

Join AmiranK on FACEBOOK

Amiran Offers Solution for the best flower Harvest

irrigation that has made it possible for farmers to grow all year round and experience high yields while still conserving an important environmental resource, water, ensuring that every drop counts through the drip pipes which delivers water directly to the root of the plant, saving between 30 to 60 percent of water as compared to other modes of irrigation.

This efficient addition to the Kenyan agricultural sector has brought increased investment in irrigated agriculture to help Kenya achieve the set 50% irrigation potential by 2020. The modern farming technology is being applied by NGOs such as the Kenya Red Cross and World Vision, who have supported projects that use Amiran's drip irrigation technologies for communities in arid and semi-arid areas to learn and practice modern farming. With these projects, the NGOs are set to cut on food and relief aid, thus contributing to rural development and transforming the image of these areas to rich independent areas.

To cater to the growing demand of fresh agricultural produce farmers have been challenged to increase their farming space in order to produce more, forcing most farmers to cut down trees to increase their growing area.

The Amiran's Farmers Kit (AFK) which only requires an eighth of an acre of land was invented so that small-scale farmers can benefit from modern agricultural innovations and experience large harvests.

Through the AFK, Amiran is also promoting urban and peri urban agriculture to improve food access in towns, residents can do farming in the 500 square meters AFK and still be able to produce tonnes of food that would have previously required large areas of land. In addition, the greenhouse, an important component of the AFK uses metallic support structures as compared to wooden structured greenhouses that encourage cutting down of trees.

Another environmentally friendly innovation from Amiran is the Amiran Organic Farmers Kit which is comprised of a unique set of components that include: Natural organic fertilizers, specially formulated soil nutrients and organic pesticides, among other components. Amiran's organic farming methods sustain the health of the soil, ecosystems and grow healthy organic produce.

It relies on ecological processes, biodiversity and cycles adapted to local conditions, combining tradition, innovation and science to benefit the shared environment and promote fair relationships and quality of life for all involved with the result being healthy soil, improved soil fertility, comparable crop yields, nutritional superior products for families, higher market produce for sale, and most importantly, a balanced ecosystem.

Priding itself with the common Northeast African proverb, 'Love the land and the land will love you in return' Amiran brings to Kenya, products that can guarantee farmers success in the farm while still taking good care of the environment.

Amiran Farmers Kit Oloitoktok

Newly Discovered 'Scarecrow' Gene Might Trigger big boost in food production

With projections of 9.5 billion people by 2050, humanity faces the challenge of feeding modern diets to additional mouths while using the same amounts of water, fertilizer and arable land as today.

Cornell University researchers have taken a leap toward meeting those needs by discovering a gene that could lead to new varieties of staple crops with 50 percent higher yields.

The gene, called Scarecrow, is the first discovered to control a special leaf structure, known as Kranz anatomy, which leads to more efficient photosynthesis.

Plants photosynthesize using one of two methods: C3, a less efficient, ancient method found in most plants, including wheat and rice; and C4, a more efficient adaptation employed by grasses, maize, sorghum and sugarcane that is better suited to drought, intense sunlight, heat and low nitrogen.

"Researchers have been trying to find the underlying genetics of Kranz anatomy so we can engineer it into C3 crops," said Thomas Slewinski, lead author of a paper that appeared online in the journal Plant and Cell Physiology. Slewinski is a postdoctoral researcher in the lab of senior author Robert Turgeon, professor of plant biology.

The finding "provides a clue as to how this whole anatomical key is regulated," said Turgeon. "There's still a lot to be learned, but now the barn door is open and you are going to see people working on this Scarecrow pathway."

"The promise of transferring C4 mechanisms into C3 plants has been fervently pursued and funded on a global scale for decades," he added.

If C4 photosynthesis is successfully transferred to C3 plants through genetic engineering, farmers could grow wheat and rice in hotter, dryer environments with less fertilizer, while possibly increasing yields by half, the researchers said. C3 photosynthesis originated at a time in Earth's history when the atmosphere had a high proportion of carbon dioxide.

C4 plants have independently evolved from C3 plants some 60 times at different times and places. The C4 adaptation involves Kranz anatomy in the leaves, which includes a layer of special bundle sheath cells surrounding the veins and an outer layer of cells called mesophyll.

Bundle sheath cells and mesophyll cells cooperate in a two-step version of photosynthesis, using different kinds of chloroplasts.

By looking closely at plant evolution and anatomy, Slewinski recognized that the bundle sheath cells in leaves of C4 plants were similar to endodermal cells that surrounded vascular tissue in roots and stems.

Slewinski suspected that if C4 leaves shared endodermal genes with roots and stems, the genetics that controlled those cell types may also be shared.

Slewinski looked for experimental maize lines with mutant Scarecrow genes, which he knew governed endodermal cells in roots.

When the researchers grew those plants, they first identified problems in the roots, then checked for abnormalities in the bundle sheath. They found that the leaves of Scarecrow mutants had abnormal and proliferated bundle sheath cells and irregular veins.

In all plants, an enzyme called RuBisCo facilitates a reaction that captures carbon dioxide from the air, the first step in producing sucrose, the energy-rich product of photosynthesis that powers the plant.

But in C3 plants RuBisCo also facilitates a competing reaction with oxygen, creating a byproduct that has to be degraded, at a cost of about 30-40 percent overall efficiency. In C4 plants, carbon dioxide fixation takes place in two stages.

The first step occurs in the mesophyll, and the product of this reaction is shuttled to the bundle sheath for the RuBisCo step. The RuBisCo step is very efficient because in the bundle sheath cells, the oxygen concentration is low and the carbon dioxide concentration is high.

This eliminates the problem of the competing oxygen reaction, making the plant far more efficient. The study was funded by the National Science Foundation and the U.S. Department of Agriculture.

Reducing Supply Chain Barriers Could Increase Global GDP

Reducing supply chain barriers could increase global GDP and world trade much more than reducing all import tariffs, according to a new report released today by the World Economic Forum in collaboration with Bain & Company and the World Bank.

Enabling Trade: Valuing Growth Opportunities finds that if all countries reduce supply chain barriers halfway to global best practice, global GDP could increase by 4.7% and world trade by 14.5%, far outweighing the benefits from the elimination of all import tariffs. In comparison, completely eliminating tariffs could increase global GDP by 0.7% and world trade by 10.1%.

Even a less ambitious set of reforms that moves countries halfway to regional best practice could increase global GDP by 2.6% and world trade by 9.4%. Economic gains from reducing supply chain barriers are also more evenly distributed across countries than the gains associated with tariff elimination.

Regions that stand to benefit in particular under these scenarios are sub-Saharan Africa and South East Asia. Such large increases in GDP would be associated with positive effects on unemployment, potentially adding millions of jobs to the global workforce. According to the report, lowering supply chain barriers is effective because it eliminates resource waste and reduces costs to trading firms and, by extension, lowers prices to consumers and businesses.

Supply chain barriers can result from inefficient customs and administrative procedures, complex regulation and weaknesses in infrastructure services, among many others. The supply chain is the network of activities involved in producing and getting a product to consumers, and spans the manufacturing process as well as transport and distribution services.

Enabling Trade: Valuing Growth Opportunities was initiated by the Forum's Global Agenda Councils on Logistics & Supply Chains and Global Trade & FDI. The report provides a wealth of information regarding how policies can create unnecessary supply chain costs and inefficiencies based on 18 case examples spanning multiple industries and regions.

The case examples highlight that clusters of policies jointly impact supply chain performance; that a concerted approach is needed to cut across different policy domains; that there may be specific tipping points that need to be achieved for reductions in supply chain barriers to have a significant impact on trade; and that small and medium enterprises (SMEs) tend to face proportionally higher supply chain barriers and costs.

The report recommends that governments create a focal point to coordinate and oversee all regulation that directly impacts supply chains; that public-private partnerships be established to undertake regular data collection, monitoring and analysis of factors affecting supply chain performance; and that governments pursue a more holistic, supply-chain-centred approach towards international trade negotiations to ensure that trade agreements have greater relevance for international business and do more to benefit consumers and households.

"The Forum's Enabling Trade programme has endeavoured to highlight the fundamental attributes that enable a country to facilitate trade," said Børge Brende, Managing Director, World Economic Forum.

"Through a vivid repository of case studies, which provide an on-the-ground view of everyday barriers that companies face along trade lanes, this report shows that removing barriers to supply chains can enhance economic competitiveness and generate significant welfare benefits and jobs for countries."

"The case studies show that countries can lose their competitive advantage in terms of factor costs, if the costs associated with their supply chain barriers are high," said Mark Gottfredson, Partner, Bain & Company. "The lesson for companies is the importance of understanding supply chain barriers and how the associated costs and delays can erode other sourcing advantages.

For example, a case study on the apparel industry illustrates how delays at the border, inconsistent application of regulations, and infrastructure issues completely offset significant labour cost advantages for many countries."

"Supply chain barriers are more significant impediments to trade than import tariffs," said Bernard Hoekman, Director of the World Bank's International Trade Department, who is also the Chair of the Forum's Global Agenda Council on Logistics & Supply Chains. "Lowering these barriers will reduce costs for businesses, and help generate more jobs and economic opportunities for people."

Keep your (drip) irrigation system clean

How does blockage develop?

The drip irrigation system has to be kept free from blockage to ensure an accurate delivery of water and also to keep oxygen in the water. During the cultivation salts from Ca, Mg, SO4, P, Si, Al, Fe, Mn and Zn can precipitate, for example gypsum (CaSO4). Test results show that a combination of organic and inorganic components often is the cause of blockage. The main components are often organic matter, Fe, Ca and P. Clay particles also can precipitate in your (drip) irrigation system. Different kinds of yeast, bacteriae and fungi can survive in the (drip) irrigation system because of the existence of methane, H2S, Fe, NH4, carbon and chelates. Substances containing organic carbon (formic acid, acetic acid a.o.) increase the bacteriae and fungi growth. Especially when you recirculate this can cause problems.Test results from blockage material show that often Trichoderma is found, because of - among others – the presence of methane. Methane often is found in bore hole water and water from reversed osmosis.

How to keep the (drip) irrigation system clean?

Prevent calcium precipitation during the cultivation by means of pH setting at 6.2 or lower in the drip solution. Replace ortho-phosphate with poly-phosphate, as much as possible.The dripper type determines the sensibility for blockage. Labyrinth drippers are less sensitive for blockage than forexample capillaires. Pressure compensated labyrinth drippers are - in their turn - less sensitive than normal labyrinth drippers. During the cultivation low concentrations hydrogen peroxide can be used. Apply this seperate and not in combination with the (iron) chelate. Peroxide can damage the chelate. After having finished the cultivation other chemical agents can be used to clean the (drip) irrigation system. Nitric acid bites the inorganic components away and kills off algae, bacteriae and fungi. Sodium hypochloride removes organic components.

Rinse your (drip) irrigation system with clean water in between when both using nitric acid and sodium hypochloride. Otherwise the acid will react with the base. Nitric acid and sodium hypochloritecan not be used in self-closing drip irrigation systems including drippers with rubber membranes. Those membranes can be affected and thus cause differences in water delivery. Please note that when chemical agents are being applied the inner side from the (drip) irrigation system can become rough and – as a result – become more susceptible for renewed blockage.

When should iron, manganese and methane be removed from bore hole water?

Filters, de-ironising, de-manganesing removes mineral components, Fe, Mn and Si from bore hole water. In general bore hole water with iron content up to 100micromol/l (6.0 ppm) can be used. However in case of drip irrigation the irrigation system can be polluted easily as a result of iron (de)flocculation. For drip irrigation theiron content should be 0 ideally, or 10 micromol/l (0.6ppm) at the most. 10-20 Micromol/l (0.6-1.2 ppm) is acceptable when there is sufficient organic matter in thebore hole water (iron than (de) flocculates difficult). When you demand high irrigation water quality with regard to leaf pollution (pot plants, ornamental shrubs) the iron content in the bore hole water should be 50 micromol / l (2.8 ppm) or less.

Manganese precipitates easily at high pH. Manganese precipitates difficult at low pH. For substrate cultivation the manganese content should be 10micromol/l (0.6 ppm) at the most. Methane is difficult detectable in rain water, bore hole water or drain water because of its volatibility. Water samples for methane testing have to be packed in special sampling bottles. Methane can be removed from the water by means of aeration. All kinds of blowers and other aeration equipments are available. During the aeration process carbon is being transformed to carbondioxide and escapes. Also H2S and ammonium concentrations are being reduced via aeration, iron precipitates.

The methane concentration in the A and B tank should be 0.11 g/l at the most. The methane concentration in the drip solution should be 0.08 g/l at the most. Have your plain water be analysed when you have doubts about the water quality. With the test results eventual problems with unequal water delivery can be prevented.

Point by point:

- Prevention is better than cure
- Disinfection with hydrogen peroxide during the cultivation is possible, other chemicals like nitric acid and sodium hypochloride are only possible after having finished the cultivation
- Filter organic pollution
- Aerate the plain water
- Smell if H2S is present
- Remove sediment from the drain well.
- Check your basin for algae

Water and Soil Analysis

Introduction

Soil, substrate or drain water is analysed to know what the element situation is in the substrate. Each substrate has its own analysis-method. An important differentiation is between greenhouse soil and outdoor soil. In case you doubt it is better to ask on fore hand which method is most useful in your situation .

Analysis methods Water

Water samples are filtered to remove the dirt. After filtration the water is directly analysed.

Analysis methods Potting soil

Potting soils are substrates which contain peat and coco peat or fibre and are relatively light mixtures,large pores. These substrates are diluted with water on a basis of the 1:1.5 method and the filtrate is analysed.

The pH from peat and coco peat samples settles slowly and for that reason the pH is measured after12 till 16 hours. Fresh coco substrate is sometimes dissolved in barium chloride and the filtrate analysed. This gives an indication which elements, calcium, potassium and sodium, are bound to the complex. These elements can be released during cultivation.

Analysis methods Soil

Greenhouse soil and sandy outdoor soil are analysed with the 1:2 analysis method.
For more loamy soils it is possible to use the 1:2 analysis in combination with test for P-Al and the calcium carbonate percentage.

Outside soil analysis

This analysis can be done for greenhouse and outdoor soils. With this analysis a better insight is reached concerning the elements that are bound to

clay and organic matter and which are not easily dissolved when a water extraction is used. These elements are potassium, phosphate, magnesium and calcium.

With this analysis also results are generated which can give an indication about the structure of the soil. In this analysis the percentage organic matter and the soil particle size isdetermined. Each analysis can be done separately.

N-mineral determination

For outdoor cultivation it is important to know how much nitrogen is available in the soil. This can bed one with a separate analysis with calcium chloride. With this method all N is measured. Calcium chlorine is used to stimulate the water and nutrient solution in the soil.

Total phosphate, P-Al analysis

Phosphate precipitates easily in soil. In case the substrate is diluted in water, which is the standard method, not all phosphate dissolves and the concentration is lower than the total amount in the soil.

In soils which are denser or heavy, with more clay, precipitation is more easy. With the P-al analysis method all phosphate is extracted and determined. With this number a good phosphate advice can be given.

Liming advice, calcium carbonate determination

To give a good liming advice several numbers/ parameters are necessary. These are; organic matter, soil particles smaller than 16 or 2 µm = lutum, pH-KCl and calcium carbonate.

With a higher organic matter content less lime is needed The lime or chalk in the soil is precipitated as calcium carbonate. For this analysis the soil is mixed with acid. The acid reacts with the carbonate and the carbon dioxide gas escapes and is measured.

Organic matter determination

The amount of organic matter in the soil gives information about the structure of the soil. In substrate mixtures the organic matter is determined to know how much sand is present in the mixture.

Particle size, 2 and 16 µm / lutum

To know more about the soil structure, the amount of small particles is determined. The bigger particles like sand and stones are sieved. The smaller particles like lutum, size 2 mm, are determined after sedimentation.

In The Netherlands the percentage of the particle size of 16 µm is widely used in agriculture, international lutum or the size 2 µm is the standard. In The Netherlands lutum becomes the standard.

PH determination

The pH can be measured in water and other extraction liquids, like potassium chloride. The pH water is approximately 0.5 higher than the pH-KCl.

Target Values and Feeding Solution, What is the difference?

Introduction

The target values and the feeding solution values are often mixed up but absolutely not similar. The feeding solution values are always higher than the target values. This is because plants take up elements out of the feeding solution. Plants use relatively more N and less Ca.

For that reason N is relatively higher than Ca in the feeding solution. Plants in artificial substrate live for 75% from the feeding water that is flowing along the roots. In soil the roots also use the elements which dissolve in time. For this reason in soil, especially outdoor soil, other methods are used for element analysis.

Adjustment of the target values

The target values are specific for each crop, growing stage and substrate.

Adjustment of the feeding solution

The feeding solution is specific for each crop, growing stage and substrate. It is possible that for your crop the feeding solution values are not applicable. In that case it is possible to make a specific feeding solution for your situation.

Small adjustments can be applied with a specific adjustment on the standard feeding solution. For example extra calcium or extra iron for some varieties. Ammonium can also be taken out of the feeding solution.

Growing phase adjustment

The required amount of elements changes during development of the plant. For that reason specific target values and feeding solutions are made for each growing stage.

Different schemes are made for the following stages;

- slab soaking scheme
- Start scheme
- Growing scheme, or vegetative
- Flowering scheme, or generative

The slab soaking scheme is used when the new artificial substrate is watered the first time. In this scheme calcium is higher and potassium lower.

The growing or vegetative scheme is especially for making leaves and shoots. In the flowering scheme the goal is to stimulate flowering and slow down the formation of leaves.

Growing schemes contain more calcium and nitrogen. The flowering scheme contains more potassium and sulphate to compensate the reduction of nitrogen and calcium.Crops which grow continuously like roses are normally grown on a vegetative scheme.

How long is a feeding solution useful?

At the start of cultivation, a standard scheme is made. When the crop grows, a sample is taken from the substrate or the drain water. Based on the analysis results of this sample the feeding solution is adjusted and named “correction scheme.”

A “correction scheme” is used for a period of 2 till 4 weeks. After these weeks the standard scheme has to be used again. In case the “correction scheme” is used for a longer time the balance can tumble to the other side. This results in a “jojo” effect.

Basic water, recalculate it

A feeding solution is made based on the mineral content of the plain water. A plain water is for instance well water or river water or dam water. Well water and surface water always contain elements and the pH is often higher than good for the plants.

The minerals have to be deducted from the feeding solutions otherwise the elements out of the plain water are given too much. The high pH has to be decreased by adding acid. For both reasons, salts and pH, it is important to know what the elements are in the plain water.

AB Tank Content, All Kind of Fertilisers are Possible

Introduction

The analysis report gives the recipe for the AB tank. A standard tank has a size of 1000 litre and is 100 times concentrated. In the program the tank volume and the concentration can be changed for an optimal service to clients.

Checking fertilisers in the recipe with local used fertilisers

The recipe is based on the fertilisers known. It is always important to check the percentages of the fertilisers with your own fertilisers. In case the percentage is different and you do not notice it a deficiency or a excess can be the result.

For an optimal service we offer the possibility to choose out many fertilisers. In this way re-calculation on site is not necessary and calculation mistakes are avoided.

Fertilisers

The standard combination of fertilisers contains the solid fertilisers. The solid fertilisers can be supplemented with acids. The acids which are use dare nitric acid, sulphuric acid and phosphoric acid in several concentrations.

Normally nitric acid is used, in case the nitrogen demand is small it is possible to use phosphoric acid. Besides solid fertilisers also liquid fertilisers can be used. This can be complete packages liquid fertilisers. Some of the fertilisers are available in a solid and liquid formulation.

These are for example calcium nitrate, magnesium nitrate and ammonium nitrate. In case of ammonium nitrate, it is important to check the concentration this can be 17% or 34%. In case chlorine is applied the fertilisers calcium orpotassium chlorine are used.

Compound N-P-K fertilisers

The feeding solution can also be calculated for compound fertilisers. Most programs calculate the most optimal combination of compound fertilisers and this recipe is advised.

In case of compound fertilisers the feeding solution cannot be as close to the target values as with single fertilisers. Compound fertilisers contain in most cases ammonium, which is not always desired.

Iron

Iron chelates are made for a certain pH range, in this range the uptake is optimal. At a neutral pH DTPA can be used. In the advice program the kind of chelate changes with increasing PH.

Above a PH of 6.5 EDDHA iron is advised because the uptake of this chelate is better at higher PH. Chelates are broken down by light and for that reason the AB tank has to be covered.

Filling of the AB tank

The A and B tank have to be filled in the order which is given in the recipe. In general, the acids are added first, these are followed by the basic fertilisers and at last the neutral fertilisers. Especially in case of the use of Super FK the order is important.

Residue in the AB tank

The most well known residue is the precipitation of calcium with sulphate or phosphate. That is also the reason why an A and a B tank are necessary. In case of too much fertilisers in a tank the maximum solubility concentration can be passed.

Potassium sulphate has the lowest solubility value and amounts of 100 kg in 1000 l are a maximum. In normal situations 150 till 200 kg fertilisers can be dissolved in a tank of 1000 l. In the B tank the pH should stay below 5.0-5.2 other wise magnesium can precipitate.

Final control of the feeding solution

Before the water goes to the greenhouse it has to be checked. This can be done by measuring pH and EC values for a indication if mixing is done well. In case of doubt about the elements the water can be analysed.

Collection and Shipping of Pathological Samples

Introduction

A lot of customers ask how they should send in samples of diseased plants correctly. Below are instructions about how one should send in samples and what information needed from the accompanying diseased plant,soil sample and so on.

Sample collection for disease diagnosis

- Samples should preferably be taken from area's that show early symptoms of the problem. Dying and rotting or plants with late symptoms contain a lot of secondary pathogens that might trouble the sight on the actual problem organism.
- Please take a sample before treatment with fungicides, pesticides or other chemicals.
- Always send some of the roots material.
- Send in the whole plant if possible. Especially if the symptoms are not clear.
- Sometimes it is handy to see the healthy plants also. If it is possible wrap the plants separately from the diseased plants.

Sample collection for DNA multiscan

- Plant, soil, seed or water samples should preferably be taken in areas that show early symptoms of the problem. Always send some of the roots material and if possible send in the whole plant.
- Water samples can also be taken from drain water, rivers, basins, ponds or well water. Take a sample of at least 250ml in a clean bottle.
- Soil samples of 40 sub-samples per hectare can be taken to do a preventive check before planting.
- Please take a sample before a treatment with fungicides, pesticides or other chemicals.
- Send in at least 5 grams of seed.

Sample collection for nematological research

- Soil samples of 40 sub-samples per hectare can be taken to do a preventive check before planting.
- Water samples should be at least one litre and filter this, in the field, over four 20 micron filters, the residue is send in. The residue is analysed at the lab.
- Roots samples should at least weigh 20grams. Sample at least 10 plants in infected areas

Sending in samples

- Provide correct name and address.
- Provide as much information as possible. This will speed up the analysis. You can think about: Chemicals used, Symptoms in the field, Fertilizer used.
- If possible send in some digital photosper e-mail of the symptoms in the field.
- Include your email address as well; a fax number will do too.

Packing the samples

- Avoid any contamination between different samples. Take care of potting soil contamination on leaves and flowers.
- If you send in pots please pack them carefully and tie them up around the stem
- Pack the samples in paper to prevent the sample from extreme rotting or dehydration and put this in a plastic bag.
- Put the above stated information on a note in the bag. Please put your name or company name on package.

2013 Calendar of Events

Floriculture Events Calendar is the most comprehensive list of upcoming floristry and flower trade-related events. We aim to include all the world's key trade shows and floral art happenings.

Philadelphia Flower Show 2013	USA	02-03-2013 / 10-03-2013
Northeast Floral Expo 2013	Connecticut (USA)	08-03-2013 / 10-03-2013
World Floral Expo 2013	New York	13-03-2013 / 15-03-2013
FloraHolland Trade Fair	Naaldwijk 2013	13-03-2013 / 15-03-2013
HortiFlora Ethiopia 2013	Addis Ababa	20-03-2013 / 22-03-2013
Melbourne Int'l Flower & Garden Show 2013		20-03-2013 / 24-03-2013
De Keukenhof Seasonal Opening	Lisse (NL)	21-03-2013
Nepal Flora Expo 2013	Kathmandu	28-03-2013 / 31-03-2013
FloraIndia 2013	Mumbai (India)	29-03-2013 / 31-03-2013
California Spring Trials 2013		06-04-2013 / 11-04-2013
Flowers & Hortech Ukraine & CIS 2013	Kiev	09-04-2013 / 11-04-2013
AIFD 2013 Southern Conference	Puerto Rico	11-04-2013 / 14-04-2013
Hortiflorexpo IPM 2013	Shanghai (China)	17-04-2013 / 20-04-2013
RHS Flower Show Cardiff 2013	Cardiff (UK)	19-04-2013 / 21-04-2013
European Spring Pack Trials 2013	The Netherlands	23-04-2013 / 26-04-2013
AstanaFloraExpo 2013	Almaty (Kazakhstan)	24-04-2013 / 26-04-2013
Flowers. Landscape. Farmstead'	Almaty (Kazakhstan)	25-04-2013 / 27-04-2013
Harrogate Spring Flower Show	Harrogate (UK)	25-04-2013 / 28-04-2013
International Horticulture Goyang 2013	Korea	27-04-2013 / 12-05-2013
Dutch Lily Days 2013	various locations	21-05-2013 / 24-05-2013
RHS Chelsea Flower Show 2013	London (UK)	21-05-2013 / 25-05-2013
MIFEX 2013	Pahang (Malaysia)	23-05-2013 / 26-05-2013
City & Flowers 2013	St. Petersburg (Russia)	23-05-2013 / 26-05-2013
IFTEX 2013	Nairobi (Kenya)	05-06-2013 / 07-06-2013
3rd Int'l Meeting Schools of Floral Art	Antigua	16-06-2013 / 21-06-2013
IFE Miami 2013	Miami Beach (USA)	18-06-2013 / 21-06-2013
AIFD Symposium 2013	Las Vegas (USA)	28-06-2013 / 02-07-2013
2013 OFA Short Course	Columbus (USA)	13-07-2013 / 16-07-2013
6th Int'l Symposium Taxonomy Cultivated Plants		15-07-2013 / 19-07-2013
Plantarium 2013	Boskoop (NL)	21-08-2013 / 24-08-2013
Tendence 2013	Frankfurt am Main	24-08-2013 / 27-08-2013
Expo Flora Russia & Flowers IPM 2013	Moscow	28-08-2013 / 31-08-2013
Eurofleurs Young Florists Championship 2013		05-09-2013 / 07-09-2013
Spoga+gafa 2013	Cologne (Germany)	08-09-2013 / 10-09-2013
Flormart 2013	Padova (Italy)	11-09-2013 / 13-09-2013
SAF Convention 2013	Phoenix (USA)	18-09-2013 / 21-09-2013
Fleuramour 2013	Alden Biesen (Belgium)	20-09-2013 / 23-09-2013
Proflora 2013	Bogota (Colombia)	02-10-2013 / 04-10-2013
Orticolario 2013	Villa Erba (Italy)	04-10-2013 / 06-10-2013
IFEX 2013	Tokyo (Japan)	09-10-2013 / 11-10-2013
FloraHolland Trade Fair	Aalsmeer 2013	06-11-2013 / 08-11-2013
International Horti Fair 2013	Aalsmeer (NL)	06-11-2013 / 08-11-2013
IFTF 2013	Vijfhuizen (NL)	06-11-2013 / 08-11-2013
IPM Dubai 2013	U A E	17-11-2013 / 19-11-2013
'Europa Cup' Floristry Championship 2015		03-09-2015 / 06-09-2015

FLOWER FARMS IN KENYA

FARM NAME	LOCATION	PRODUCT	CONTACT PERSON	TELEPHONE	E-MAIL
AAA Growers	Rimuruti	Roses	Mr. George Hopf	0733-746737	george@aaagrowers.co.ke
AAA Growers-Chestnut	Naromoru	Vegetables	Mr. Mark Kirimi		nanyuki@aaagrowers.com
AAA Growers Ltd.	Thika	Vegetables	Mr. Steve		
AAA Growers-Turi	Nanyuki	Vegetables	Mr. Japheth		japheth@aaagrowers.co.ke
Africallas	Limuru	Zantedeschia	Mr. Robert Holtrop	066-76084	rob@sande.co.ke
Afri-organics (K) Ltd	Timau	Herbs	MR. John Harris		ohn@afriorganic.co.ke
Agripro Horticulture	Nakuru				
Aquila Flowers	Naivasha	Roses	Mr. Yogesh	0715 -817369	gm@aquilaflowers.com
Baraka Flowers	Ngurika	Roses	Mr. A. Mutiso	0727-038432	
Batian Flowers	Timau	Roses	Mr. Andre Borlage	0711-717987	andre@batianflowers.com
Beauty Line	Naivasha	Gypsophila, Solidago	Mr. Munene	072-1372906	
Bigot Flowers	Naivasha	Roses	Mr. Jagtap Kakasaheb	0722-205271	jagtap.kt@bigotflowers.co.ke
Bila Shaka	Naivasha	Roses	Mr. Joost Zuurbier	0711-898689	bilashaka.flowers@zuurbier.com
Black Petals	Limuru	Roses	Mr. Nirzar Jundre	0722-848560	nj@blackpetals.co.ke
Blooming Dale	Timau	Roses	Mr. Sunil	0732-373322	sunil@bloomingdaleroses.com
Bluesky	Naivasha	Gypsophila,Roses	Mr. Mike	0720-005294	blue-sky@africaonline.co.ke
Buds $ Blooms -Blis flora	Nakuru	Roses	Mr. Sachin Appachu	0720-804784	
Buds $ Blooms -Town	Nakuru	Roses	Mr. Shivaji wagh	0720-895911	shivaniket@yahoo.com
Carnations Plants	Athi River	Carnations	Mr. Amir	045-22242	cpl@exoticfields.com
Carzan Flowers	Kipipiri	sammer flowers	Mr. Kiarie Gitau	0722-931159	
Charm Flowers	Kitengela	Lisianthus, Roses	Mr. Ashok Patel	020 2222433	info@charmflowers.co.ke
Colour Crops	Bahati	Hypericum, Ammi	Mr. K. Marigoma	020 2313859	admin@coulourcrops.com
Colour Crops	Timau	Summer flowers	Mr. Simon Baker		simon@siluba.co.ke
Colour Crops.	Naivasha	Veronica,fillers	Mr. Geofrey Mwaura	0724-083111	nva@coulourcrops.com
Colour Vision Roses Ltd	Naivasha	Roses breeders	Mr. Peter van der Meer	(0)50 50 310	petervandermeer@terranigra.com
Countrywide Connections	Nanyuki	Eryngiums	Mr. Richard	062-31023/6	production@countrywide.co.ke
Credible blooms	Nairobi	Roses	Mr. George	0725-762099	
De Ruiters	Naivasha	Roses	Mr. Sebasten Alix	0720-601600	info@drea.co.ke
Delmare pivot (Vegpro)	Naivasha	Vegs, Roses			
Desire flora (K) Ltd	Isinya	Roses	Mr. Rajat Chaohan	0724-264653	rajatchaohan@hotmail.com
E.A. Growers - Jessy	Mweiga	Vegetables	Mr. Antony M.		antonym@eaga.co.ke
Elbur flora	Elburgon	Roses	Mr. Peter K. Kagotho	0724-722039	elflora@africaonline.co.ke
Enkasiti Rose	Thika	Roses	Mr. Tambe	067-44222/3	enkasiti@form-net.com
Equinox Horticulture Ltd	Timau	Roses	Mr. John Mwangi		john@equinoxflowers.co.ke
Everest Enterprises -Chulu	Timau	Vegetables	Mr. Anthony Muiruri		
Everest Enterprises - Lusoi	Naromoru	Vegetables	Mr. Robert Mbuthia		robert.mbuthia@everest.co.ke
Everes Enterprises - Njumbi	Naromoru	Vegetables	Mr. Robert Mbuthia		robert.mbuthia@everest.co.ke
Everest Enterprises - Woodland	Mweiga	Vegetables	Mr. George Machariah		george.macharia@everest.co.ke
Everflora Ltd	Juja	Roses	Mr. Bipin Patel	0716-066305	everflora@dmblgroup.com
Fides(K) Ltd	Embu	Roses, Cuttings	Mr. Francis Mwangi	068-30776	info@fideskenya.com
Finlays-Chemirel	Kericho	Roses	Mr. Aggrey	0722-601639	
Finlays Tarakwet	Kericho	Roses	Mr. John Magara	0722-873539	john.magara@finlays.net
Finlays Flamingo	Naivasha	Roses/Fillers	Mr. Peter mwangi	0722-204505	peter.mwangi@finlays.net
Finlays-Kingfisher	Naivasha	Roses	Mr. Charles Njuki	0724 -391288	charles.njuki@finlays.net
Finlays-Kingfisher	Naivasha	Carnations/ Fillers	Mr. Jacob Wanyonyi	0722-773560	jacob.wanyonyi@finlays.net
Finlays - Vegetables	Naivasha	Vegetables	Mr. Daniel Kiboi	0722-206627	
Finlays-Siraji	Timau	Carnations/Roses	Mr. Paul Salim		paul.salim@finlays.net
Finlays-Sirimon	Timau	Lilies	Ms. Purity Thigira		purity.thigira@finlays.net
Finlays Lemotit	Londiani	Carnations	Mr. Richard Siele	0721-486313	richard.siele@finlays.net
Flora Kenya	Naivasha	Roses	Mr. Jack Kneppes	0733-333289	jack@maridadiflowers.com
Flora ola			Mr. Dominic	0723-684277	
Flora delight	Limuru	Summer	Mr. Hosea	0724-373532	hosndai@yahoo.com
Florema (K) Limited.	Naivasha	Begonia	Mr. Peter Maina	050-2021072	info@floremakenya.co.ke
Florensis	Naivasha	Cuttings	Mr. Eddy Verbeek	050-50010	florensis@florensis.co.ke
Fontana Ltd - Mau Narok Ayana	Nakuru	Roses	Mr. Gideon maina	0721-178974	gideon@fontana.co.ke
Fontana Ltd - Njoro farm Akina	Nakuru	Roses	Mr. Arfhan	0722-728441	Arfhan@fontana.co.ke
Fontana Ltd - Salgaa	Nakuru	Roses	Mr. Kimani	0733-605219	production@fontana.co.ke
Foxton Agriculture	Naivasha	Vegetables	Mr. Foxton Asanya.		
Gatoka Roses	Thika	Roses	Mr. Chriss	0715-215840	gatoka@swiftkenya.com
Goldsmith Seeds	Naivasha	Lisianthus	Mrs. Lynette S.		
Goodwood	Nyaururu	Hypericum	Mr. Bernard	0701-166466	
Goodwood Properties	Nyeri	Vegetebles	Mr. Kahiga		dwagacha@qfp.co.ke
Gorge Farm	Naivasha		Purity Njue		
Greystones Farm			Mr. Silas Mbaabu	0722-312316	silas.mbaabu@greystones.co.ke
Groove	Naivasha	Roses	Mr. Peter	0724-448601	groovekenya@gmail.com
Hamwe Ltd	Naivasha	Hypericum	Mr. Andrew Khaemba	0722-431170	production@hamwe.co.ke
Harvest Ltd	Athi River	Roses	Mr. Farai Madziva	0722-849329	harvest@harvestflowers.com
Highlands Plants	Olkalau	Outdoors			
Hummer	Naivasha	Carnation, cuttings	Mr. Annemaria		

FLOWER FARMS IN KENYA

FARM NAME	LOCATION	PRODUCT	CONTACT PERSON	TELEPHONE	E-MAIL
Indu Farm	Naivasha	French beans	Mr. James		
Interplant roses	Naivasha	Breeders	Mr. Geofrey Kanyari	0712-215419	geoffrey@interplant.co.ke
Isinya roses	Isinya	Roses	Mr. Yash Dave	0700-797849	info@isinyaroses.com
James Finlays	Kericho/Londiani	Roses	Mr. John Magara	0722-206627	flowers@finlay.co.ke
K.H.E.	Nanyuki	Vegetables	Mr. Elijah Mutiso		mutiso@khekenya.com
K.P.P. Plant Production (K) Ltd	Juja	Cuttings	Mr. Wilson Kipketer	020-352557	w.keter@selectakpp.com
Kabuku Farm	Thika	Roses	Mr. Anand Kumar		kabuku@eaga.com
Kalka	Isinya	Roses	Mr. Captain	0715-356540	production@kalkaflowers.com
Karen Roses.	Nairobi	Roses	Mr. Rober Kotut	020-884429	bob@karenroses.com
Kariki Ltd.	Juja	Hypericums	Mr. Samwel kariuki	0722-337579	production@kariki.co.ke
Karuturi flowers	Naivasha	Roses.	Mr. Sylvester Saruni	0722-873560	saruni@karuturi.co.ke
Kenflora	Kiambu	Roses	Mr. Aleem Abdul	0722 -311 468	info@kenfloraa.com
Kenya Cuttings Ltd.	Thika	Cuttings	Mr. Careml Ekardt	060 2030280/1	info.kenyacuttings@syngenta.com
Kenya highlands	Njoro	Roses	Mr. Kariuki	0721-436211	agricentre@africaonline.co.ke,
Kisima Farm	Timau	Roses	Mr. Kenneth	0722-475758	flowers@kisima.co.ke
Kongoni Gorge farm (Vegpro)	Naivasha	Roses,vegs	Mr. Anand Patil		
Kongoni Star Flowers(Vegpro)	Naivasha	Roses	Mr. Shailesh Rai	0722-203750	sailesh@vegpro-group.com
Kreative Roses	Naivasha	Roses	Mr. Julias Kinyanjui	0734-505431	farm@kreative-roses.com
Kudenga Flowers	Molo	Hypericum, Eringium	Mr. Juma/Rotich	0725-643942	production@kudenga.co.ke
Larmona/Hamcop	Naivasha	Roses	Mr. Peter Mureithi	0722-238474	lamonaacounts@africaonline.co.ke
Lathyflora	Limuru	Beddings			
Lex + Blomming oasis	Naivasha	Roses	Mr. Thomas Nyaribo	050-20-20612	lex@lex-ea.com
Live Wire Limited	Naivasha	Hypericcum,Lilies	Mr. John Gitonga.	050-50371	info@livewire.co.ke
Lobelia Farm	Timau	Roses	Mr. Peter Viljoen	062-41060	info@lobelia.co.ke
Londia farm	Naivasha	vegetables	Mr. John		
Longonot Horticulture	Naivasha	Roses, vegetables	Mr. Chandrakant	050-50173/4	longonot@vegpro-group.com
Maasai flowers	Kitengela	Roses	Mr. Clement Ng'etich	0725-848914	cng'etich@sianroses.co.ke
Magana Flowers (K) Ltd.	Kiambu	Roses	Mr. Peter Mwangi	0726- 212520	Pmwangi@maganaflowers.com
Mahee flowers	Olkalau	Roses & Carnations	Mr. Vijay Kumar	020-822025	info@eaga.co.ke
Marera Farm	Naivasha	Vegetables	Pierluigi		
Maridadi	Naivasha	Roses	Mr. Jack	0733-333289	jack@maridadiflowers.com
Maua Agritec	Isinya	Roses	Mr. Kori	0722-206318	gm@mauaagritech.com
Mboga Tuu	Isinya	Vegetables	Mr. Dan Agao		
Migotiyo	Nakuru				
Molo River Farm	Eldama Ravine	Roses	Mr. Adrew Wambua	0724-256592	andrewwambua@yahoo.com
Morop Flowers	Bahati		Mr. Wesley	0720-983945	agribiz@africaonline.co.ke
Mosi Ltd.	Thika	Roses	Alice Murugi	0722-204911	alicemurugi@mosiflowers.co.ke
Mt. Elgon Orchards	Kitale	Roses	Mr. Bob Anderson	0734-333095	bob@mtelgon.com
Mweiga blooms	Mweiga	Roses			mweigablooms@wananchi.com
New Hollands Flowers	Olkalau	Roses	Mr. Guna Chitran	0700-718570	guna@bth.co.ke
Nini farm	Naivasha	Roses	Mr. Fred Okinda	0720-611623	growing@niniltd.com
Nirp E.A	Naivasha	Rose Breeder	Mr. Chege	0720-477717	ethanc@nirpinternational.com
Ol Njorowa	Naivasha	Roses	Mr. David, charles	020-574011	mbegafarm@icconnect.co.ke
Oserian Dev Company	Naivasha	Roses,Fillers,statice	Mr. Ruri Tsakiris		
Panacol International	Kitale	Roses	Mr. Paul Wekesa	054-2030916/7	paul.wekesa@panacol.co.ke
Panda Flowers	Naivasha	Roses	Mr. Chakra	0723-148307	osiro@pandaflowersco.ke
Pangot	Naivasha	Roses Cutting	Mr. Mwangi		
Penta Flowers Ltd.	Thika	Roses	Mr. Tom Ochieng	0733 -625 297	tom@pentaflowers.co.ke
PJ Flora	Isinya	Roses	Mr. Absalom O.	0721-423730	pjdaveflowers@wananchi.com
PJ Dave Flowers	Isinya	Roses	Mr. Hitesh Dave	045-21381/2	pjdaveflowers@wananchi.com
PJ Dave	Timau	Roses	Mr. Israel	0712-184433	pjdavetimau@pjdaveepz.com
Plantations Plants.	Naivasha	Geraniums	Mr. William M.	050-2021031	pplants@kenyaweb.com
Pollen	Ruiru	Cuttings/Seedlings	Mr. Patrick Chege		patrick.chege@syngenta.com
Porini	Keringet	Roses	Pitamber		
Porcupine	Naivasha	Vegetables	Eyal		
Pressman Kenya Ltd	Nakuru	Roses	Jelle Posthumus	254 (0)786 580 761	jposthumus@preesman.com
Primarosa	Nyahururu	Roses	Mr. Santosh Kurkani	0712-030610	santosh @primarosaflowers.com
Primarosa Flowers Ltd	Athi River	Roses	Mr. Dilip Barge	0733 -618 354	dilip@primarosaflowers.com
Protea Farm	Timau	Roses	Mr. Philip		info@lobelia.co.ke
Ravine Roses	Eldama Ravine	Roses	Mr. Kennedy	0720-339985	kapkolia@karenroses.com
Receme	Naivasha	Gypsopilla/vegs	Mr. Boni	0721-938109	bonny@kenyaweb.com
Redlands II	Kiambu	Roses	Aldric Spindler	0733-609795	aidric@redlandsroses.co.ke
Redlands Roses	Ruiru	Roses	Aldric Spindler	0733- 609795	aldric@redlandsroses.co.ke
Rift valley Roses	Naivasha	Roses	Mr. Peterson Muchiri	0721-216026	rvr@livewire.co.ke
Rift valley vegetables	Naivasha	Vegetables	Mr. Nicholas		
Riverdale	Yatta	Roses	Ms. Zipporah Mutungi	020-2099501	rdale@swiftkenya.com
Rose plant	Kitengela	Roses	Mr. Atenus		
Roseto Flowers	Nakuru	Roses	Mr. Vijay	0717-617969	gm.roseto@megaspingroup.com

FLOWER FARMS IN KENYA

FARM NAME	LOCATION	PRODUCT	CONTACT PERSON	TELEPHONE	E-MAIL
Rozzical garden	Naivasha	Vegetables	Mr. Robert		
Rozzika Garden Centre Ltd	Mweiga	Vegatables	Mr. Kinuthia		eunice@rozzika.co.ke
Savanah plants	Naivasha	Geraniums	lukulu		
Shade Horticulture	Isinya	Roses	Mr. Mishra Ashutosh	0722-792018	mishra@shadeshorticulture.com
Schreurs (Linsen)	Naivasha	Roses	Mr. Pius Osore	020-2070339	info@linssenroses.co.ke
Shalimar Farm	Naivasha	Roses	Mr. Vijay Kumar	020 822025	info@eaga.co.ke
Sian Flowers- Agriflora	Nakuru	Roses/ Lilies	Mr. Laban koima	0722-554199	lkoima@sianroses.co.ke
Sian Flowers -Equator	Eldoret	Roses	Mr. Nehemiah Kangogo	0722-848910	nehemiah@equator.sianroses.co.ke
Sian Flowers- Maji Mazuri	Mois Bridge	Roses	Mr. Wilfred Munyao	0725-848912	wmunyao@sianroses.co.ke
Sian Winchester	Nairobi	Roses	Mr. R. Mulinge	0725-848909	rmulinge@sianroses.co.ke
Sierra roses	Nakuru	Roses	Mr. Anand Shah	0787-243952	
Simbi Roses Ltd.	Thika	Roses	Mr. Jefferson Karue	020-2042203	kingi@sansora.co.ke
Sirgoek flowers	Eldoret	Roses	Mr. Andrew	0725-946429	sirgoek@africaonline.co.ke
Solo Plant (K) Ltd.	Kiambu	Roses	Mr. Haggai Horwitz	0732-439942	hagai@soloplant.co.ke
Stockman rozen	Naivasha	propagator	Mr. Julius Muchiri	0722-200890	jlius@srk.co.ke
Subati Flowers Ltd	Subukia	Roses,Gypsophila	Naren Patel /Ravi Patel	+254(20)2048483	info@subatiflowers.com
Subati Flowers Ltd	Naivasha (Kinangop)	Roses	Naren Patel / Ravi Patel	+254(20)2048483	info@subatiflowers.com
Suera Flowers	Nyahururu	Roses	Mr. Joseph Mureithi		suerafarm@suerafarm.sgc.co.ke
Sunripe	Nanyuki	Vegetables	Mr. James Muhoho		
Sunripe savanah	Naivasha	vegetables	Mr. George		
Tamalu	Timau	zante	Mr. David N.	0722-764759	nzomahd@gmail.com
Tambuzi Flowers	Naromoru	Roses		062 3101917	info@tambuzi.co.ke
Terrasol	Limuru	Cuttings	Eva	0722-455996	info@terrasol.com
Timaflor Ltd	Timau	Roses	Mr. Bryan Allen	062-41263	brian.allen@timaflorltd.com
Timau flair	Timau	Roses	Mr. Philip Ayiecha	0723-383736	
Transebel Ltd.	Thika	Roses	Mr. David Muchiri		admin@transbel.co.ke
Tropiflora (K) Ltd.	Limuru	Carnations, Astroemeria	Mr. N.Krasensky	0722-783280	tropiflora@tropiflora.net
Tulaga	Naivasha	Roses	Mr. Denis Wedds	0724-465427	denis.weds@africaonline.co.ke
Uhuru Flowers	Timau	Roses	Mr. Ivan Freeman	020-3538797	ivan@uhuruflowers.co.ke
Valentine Kibubuti	Kiambu	Roses	Susan Maina	020-3542466	info@valentineflora.com
Van den berg roses	Naivasha	Roses	Johan Remeus	050-5050439	johan@roseskenya.com
Vegpro (k) Ltd - Kitawi	Naromoru	Vegetables	Das		
Vegpro (k) Ltd - Liki River	Nanyuki	Roses	Mr. Madhav Langre		madhav@vegpro_group.com
Vegpro (k) Ltd- Kongoni	Timau	Roses	Vivek Sharma		vivek@vegpro_group.com
Waridi Ltd	Athi River	Roses	Mr. P.D. Kadlag	0724-407889	kadlag@waridifarm.com
Wiham Veg Mwanzi	Nyahururu		Madadi	0721-491633	
Wildfire flower	Naivasha	Roses/Hypericum	Christine Karambu	0722-468031	christine.karambu@wildfire-flowers.com
Windsor Flowers	Thika	Rose	Mr. Vikash singh	067- 24208	farm@windsor-flowers.com
Xpression ltd -Africa Blooms	Salgaa	Roses	Mr. Samir	0072-4518140	
Xpression ltd -Elburgon	Nakuru		Mr. Inder	0719-748175	
Zena roses - Asai	Eldoret	Roses	Mr. Lucas O.	0718-925040	lucasoongena@yahoo.com
Zena Roses	Thika	Roses	Mr. Peter Ochami	0712-006323	productionthika@zenaroses.co.ke
Zena Roses - Sosiani	Eldoret	Roses/Carnations	Mr. Fanuel O.	0724-631299	

FLOWER FARMS IN ETHIOPIA

FARM NAME	CONTACT PERSON	PRODUCT	TELEPHONE	E-MAIL
A" flower	Rashid Mohammed	Roses	+251 11 553 3237	mekiya@ethionet.et
Abyssinia flowers		Roses	+251 11 554 0368	ggh_link@ethionet.et
Agri flora plc		Roses	+251 11 237 2325	flowers@ethionet.et
Alliance flowers plc	Ravi	Roses	+251 116184341/ 2849329/30	allianceflowers@yahoo.com
Almeta impex plc	Ato Yonas Alemu		+251 11 553 4222/24	almeta.Impex@ethionet.et
Aq roses plc			+251 46 441 4277	ethiopia@aqroses.com
Arsi agricultural	William Ngelechei/Tahir Aman	Roses	+251 11 442 3661 /	arsiflower@ethionet.et
Mechanization service	Belay		+251 443 1946/49	
Avon flowers plc.			+251 11552 8900	Gomba@ethionet.et
Awassa greenwoods plc	Hypericums		+251 552 8900 / 0462210045	awassagreenwood@ethionet.et
Beauty green plc	Yonas Tsegaye		+251 11 554 4601	seidlert@ethionet.et
Blen flowers plc	Anteneme Zenebe			blenflowers@ethionet.et
Blu nile flora plc				bnf2etf@ethionet.et
Chibo flowers	Ato habtamu gesesse			expincor@ethionet.et
Dandi bour floralia plc				dbuc@ethionet.et
Dire highland Flower plc	Tesfaye Asegidew		+251 11 551 3525, 552 6310	dhf@ethionet.et
Dream flowers plc	E.Ravi Chandran / Wycliffe Otieno	Roses	+251 11 618 4341	dreamflowers@ethionet.et
Dugda floriculture			+251 11 554 0509 , 550 1414	dugdaagr@ethionet.et
Dyr	Yosef Beyene	Carnations	+251113390251	dyr@ethionet.et

FLOWER FARMS IN ETHIOPIA

FARM NAME	CONTACT PERSON	PRODUCT	TELEPHONE	E-MAIL
Eden roses	Tshaye		+251 11 646 1443/5	edenroseplc@ethionet.et
Enyi ethio rose	Tewahido Haymanot	Roses	+251 11 348 1987, 348 2167	enyi@ethionet.et
Eteco plc				eteco@ethionet.et
Et-highland flora plc	Tim Harrap / BrianSheepers	Roses	+251 11 466 0982	Bnf2etf@ethionet.et
Ethio agri-ceft	Arvind / Kebede / Biru abebe	Rose	+251 11 618 6483 , 662 53 27	agriceft@ethionet.et
Ethio dream plc	Bimal /Emmanuel	Roses	+251 11 618 9313/143	ethiodream@ethionet.et
Ethio flora plc			+251 11 466 0982	Bnf2etf@ethionet.et
Ethiopian cuttings		Geraniums	+251 11 661 45 11 , 662 46 55	ethiopiacuttting@ethionet.et
Ethiopian magical farm		Roses	+251 11 662 2570	emf@ethionet.et
Ethioplant plc	Felix Steeghs/ Kontos		+251 11 387 1277	accounts@ethioplants.com
Experience inc. Plc	Telahum Makonnem		+251 11 464 4137	expincor@ethionet.et
Fiyori ethiopia plc	James Mwicigi	Roses	+251 11 663 6292	yoshe@ethionet.et
Florensis ethiopia plc	Ronald Vijverberg	Cuttings	+251 11 652 5556 , 652 5557	flrensis@ethionet.et
Golden rose agrofarm ltd.	Shahab Khan / Sunil Chaudari	Roses	+251 11 466 9971	gomba@ethionet.et
Herburg roses plc	Mr. Adrianus Gerardus		+251 11 441 4279	herburgj@ethionet.et
Holeta rose plc	Navale Bhausaheb K.	Roses	+251 11 618 4341	holroses@ethionet.et
Ilan tot plc			+251 (011)656 90/2/3	ilan@ilantot.com
JJ Kothari PLC	Ashok Bhujbal	Roses	+251 11 466 1155	jjkothari@ethionet.et
Joe flowers plc		Roses	+251 11 629 0800	jflowers@ethionet.et
Jordan river herbs plc			+251 11 663 6173 , 654 0207/9	flower_herb@yahoo.com
Joshua Flowers PLC			+251 11 550 7656 /7	joshuaflowers@ethionet.et
Joytech			+251 11 662 0205 , 433 6123/5	arnon@joytechplc.com
Karuturi sai	Ramarkrishna Karuturi/Anil	Roses	+251 663 2437/9	ethmeadows@gmail.com
Lafto Roses PLC			+251 11 554 1485 , 554 1483	laftoroses@ethionet.et
Langano Lily			+251 46 1191497	langanolilyflowers@gmail.com
Linssen roses	Wim Linssen		+251 11 320 5668	linssenroseset@ethionet.et
Lucy ethiopia flowers plc				ger@lucyflowers.com
Mam -Trading PLC	Mussema Aman/Idris/	Roses	+251 11 4402080	mamtrading@ethionet.et
Maranque plants plc			+251 22 119 0750	maranqueplants@hotmail.com
Marginpar ethiopia pvt. Ltd. Co	Peter Pardoen/Mwangi	Eryngiums, hypericums	+251 11 371 6232	marginpar@ethionet.et
Metrolux flowers	Roy/Daniel	Roses	+251 11 466 9273	dgad@ethionet.et
Meskel flowers	Francis Muriuki	Roses		
Minaye flowers plc.	Eyob Kebebe/MauriceOjow	Roses	+251 11 372 8666 /7/9	minaye@ethionet.et
Mullo farm plc			+251 11 554 0368	mullo@ethionet.et
Noa flora plc	Mr.David Klein		+251 11 618 6203	noaflora@gmail.com
Oda flower plc	Lemlem Sisay	Roses		odaflowers@ethionet.et
Omega farms plc			+251 11 466 9273 /76	dgad@comcast.net
Olij Flowers PLC				info@olijethiopia.com
Oromia wonders	Mr.Siva		+251 11 618 4341	oromiawondres@yahoo.com
Rainbow colours plc	Ato. Mekonnen A.		+251 11 646 1105	rainfarm@ethionet.et
Red fox ethiopia plc	G.Symondson	Erygniums, poinsettia	+251 11 551 4966	g.symondson@ethionet.et
Roman ayele	-	-	- -	
Rose ethiopia plc	Ketema Alemayeh	Roses	+251 11 552 0596	roseethiopia@ethionet.et
Roshanara roses plc.	Mr.K.Bhanu Prasad		+251 11 618 3063	roshanararoses@gmail.com
Sathya sai farms (e)ltd, plc	N.L Shyam Sundar	-		saifarms2006@gmail.com
Saron rose agrofram plc	Bruk Melese	Roses	+251 11 372 8135	saronfarm@ethionet.et
Sheba flowers plc	Clemence		+251 911 453 245	rotem@shebaflowers.com
Siet agro plc	Ermias Tadesse		+251 11 551 1835	sietagro@ethionet.et
Soparasity (mekiya)	Ken Murwayi	Roses		
Spirit plc			+251 011 662 8375	spirit@ethionet.et
Summit plc	Michael Asres /Paul Muteru	Roses		Mekiya@ethionet.et
Supra flowers plc	Rakesh Kumar Gautam		+251 11 663 1144	suprafloritechplc@yahoo.co.in
Tabor herbs			+251 11 551 2033	taborherb@ethionet.et
Tal flowers plc.			+251 11 651 7394	tal@ethionet.et
Top Flower PLC			+251 11 553 4699	mekiya@ethionet.et
Tinaw business s.c	Ato Tesfaye		+251 (011) 372 0110	bap@ethionet.et
Uni-flower plc				uniflower@ethionet.et
Johnsonflower farm.	Ato Yasin Igesse			yassinj@yahoo.com
Zaguwe flora plc	Ato. Adiam Eyasu			adiam.Eyasu@gmail.com
Zubka general business				
Flower farm plc	Zubeda Kedir			kajo@ethionet.
Top flower plc	Tadesse Bekele	Roses		mekia@ethionet.et
Valley farm plc				peval@ethionet.et
Yassin legesse johnson flower farm			+251 11 652 5579 /64	yassinj@yahoo.com
Zaguwe Flower			+251 11 618 7596	adiam.eyasu@gmail.com
Ziway roses plc			+251 46 441 4172	finzr@ethionet.et
ZK Flower			+251 11 466 4476	zkflowers@gmail.com
Zubka General Business PLC			+251 11 439 3470	kajo@ethionet.et

Love makes don see things in black and white

"These are not flowers which are grown in Kenya, sold to the Dutch and used by Americans. They are people and people don't change. Instead they compromise and that is not the best recipe for a happy marriage either." He said with the determination of the Dutch.

Dr. van Nisiteroy, a professor of pathology, had been seconded to one of the local flower farms by the mother company in The Netherlands. He also became a part-time lecturer of a post graduate student. He always demonstrated his mastery of his discipline by arguing logically.

In physical appearance, he looked very much like the seafaring captain mentioned in the Dutch naval history for their adventures and conquest across the oceans. He was tall and portly with a shiny bald head, and a luxurious grey beard. His penetrating eyes gave him a sharp look. The Cuban cigar sticking from the lips completed the picture.

Dr. van Nisiteroy graduated from one of the universities in Amsterdam, did his research on flowers and true to his calling, worked with a Dutch flower firm in Holland which had upcoming outfits in Africa. True to his Boer roots he went to work in South Africa before his stationing in Kenya. Soon after arrival, we met at one of the industry events and developed a heart-to-heart relationship and he even became a regular contributor to this magazine under pseudo names.

One day he rang me."My daughter is coming from Holland. She is a university student in The Hague and is coming here on Holidays. I am throwing a party for her to meet youngsters - mostly my own students and I wonder if you care to join me". I accepted and attended the party. It was nice to see young men and women of different ethnic origins mixing freely without hangups which were still smouldering in Kenya at the time. I could see that the father doted on the young lady.

"Feel free and enjoy your evening", Prof Van Nisiteroy told the guests. Elevating my academic status, he added, "This professor from the media is here to keep me company and check the standard of our English". The party was a great success and before it ended, Jacquiline stood and asked me to make a speech as the chief guest. There was whistling, foot thumping and loud clapping as Prof. Van. Nisiteroy led me to the microphone.

"Working as a journalist for more years than I care to remember, I have been called upon to deal with all types of emergencies". I started, looking at the sea of smiling and expectant young faces. "But this is the most acute emergency, to be asked to make a speech literally at a moment's notice". I swayed a little and continued.

"This business of a mixed grill of different ethnical origins reminds me of an interview carried during the last world war to select women who could cope with dangerous situations without panicking. The first applicant was a Brition and the standard question was asked. 'How would you react if you were stranded on a desert island and you were the only woman amongst 100 men?'

The girl considered the question for a while and then replied. 'I would separate them into soccer and cricket team and keep them busy in sports.'

The next candidate, an American, was asked the same question and she replied: 'I would distract their attention from me by setting up a military camp and assigning them different jobs to run it.'

The last girl was French and the chairman asked her. 'What would you do if you found yourself alone with 100 men on a desert island?' When she did not reply, a member of the interviewing committee slowly repeated the question and then asked; 'Have you understood the question?' After a brief silence the candidate replied in her seductive French accent: 'I understand the question sir, but what's the problem?' The story brought the house down.

When I left the podium I joined Jacquiline and a young man whom I had introduced to her as Mr. Macharia. The way it appeared, they were slowly closing the relationship gap. Contacts were exchanged and every visitor was given a bouquet of flowers, most probably from the farm the good professor was running.

During Jacquilines' subsequent visits her relationship with Macharia matured into a firm friendship. I was very happy because Macharia was an upcoming journalist under me. All was well until Jacquiline announced to her father that she intended to marry Macharia. That is when the storms broke and professor was arguing with me as to why he was opposed to the union.

Dr. Marco van Nisiteroy said, gently stroking his beard: "It is not just a matter of colour. To reduce it to the colour of the skin is to over simplify a complex issue."

"What a rich cultural experience," I remarked.

"Yes, a change and perhaps captivating experince to start with but nevertheless, a cataclysmic change," he replied. "And this may prove a millstone round the neck when the novelty and infatuation has worn off". I acted as the Devil's advocate.

As he tapped the cigar on the ashtray lying on the coffee table, he elaborated: "Colour, of course, is the most obvious and visible aspect, which comes easily to the mind of simple folks who cannot think deeper. Let us not forget that there are questions of culture, language, religion, country, food, lifestyle, mode of dressing and a host of other issues which at best might be conflicting and at worst prove incompatible."

"However, it is her life, if she wants to play with fire, it is her funeral," he sounded really worked up. Notwithstanding all that, he loved his daughter immensely. What happened thereafter is another day's story.

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