

November - December 2012

THE LEADING FLORICULTURAL JOURNAL IN THE REGION

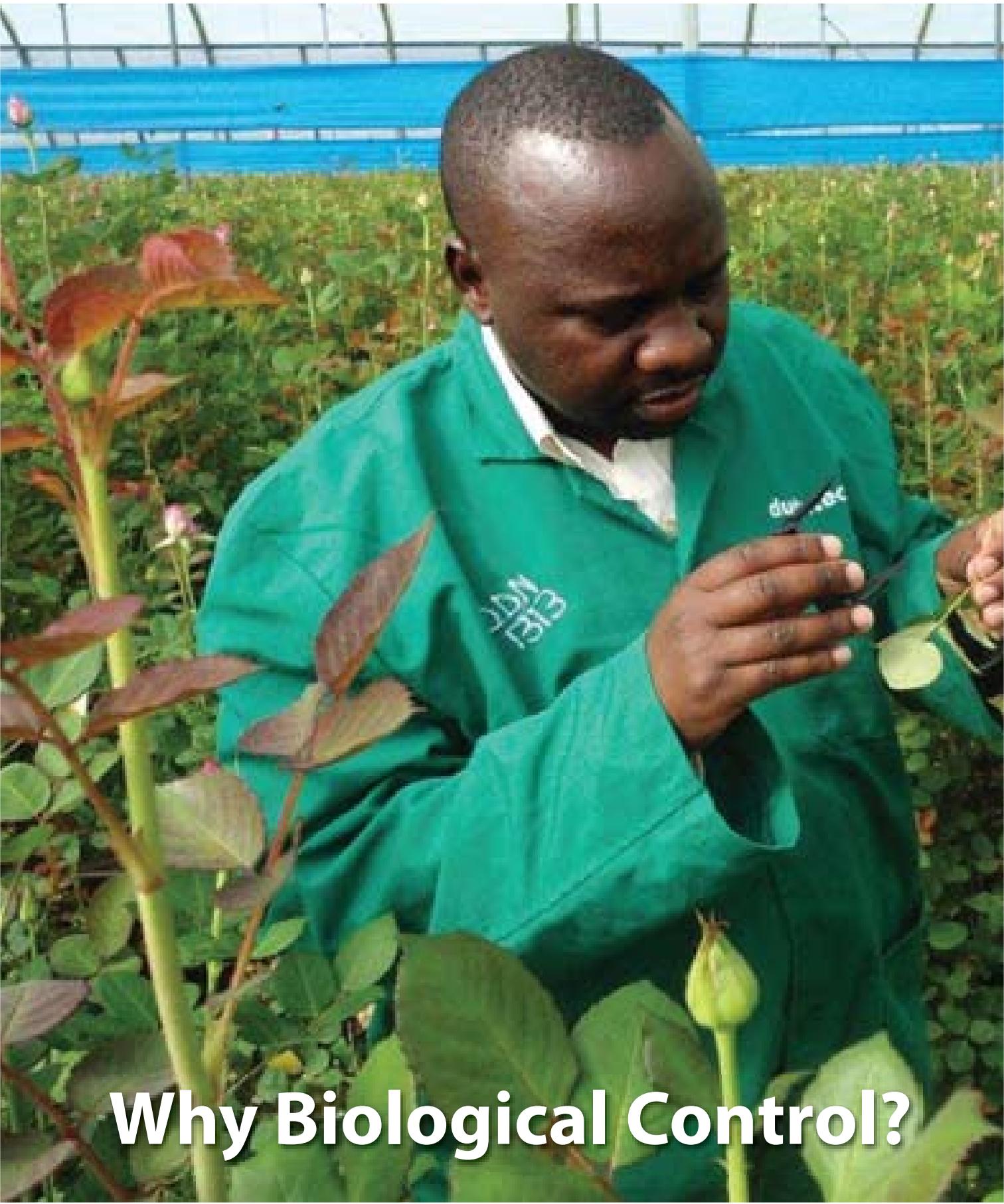
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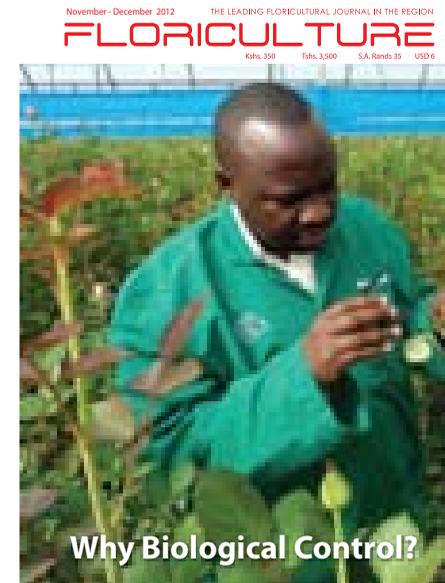


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Cover Photo
Courtesy of Dudutech

The Leading Floriculture Magazine

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My Loving Growers

We have been persuaded by some that are careful of their safety, to take heed how we commit ourselves to growing flowers, for fear of poisoning. I assure you, I do not desire

to live to distrust my faithful and loving readers. So I will address their fears. I have always so behaved myself that, under God, I have placed my chiefest strength and safeguard in the loyal hearts and good will of my readers.

And therefore I am amongst you at this time, not as for my pen or paper, but being resolved, in the midst and heat of the discussion, to live or die amongst you all; to lay down, for my God, and for my readers, and for my customers, my honor and my blood, even the dust. I know I have but the body of a weak and feeble writer; but I have the heart of a buyer, and of a buyer of flowers from Kenya, too; and think foul scorn that grower or exporter, or any anyone, should dare to sale toxicities in name of flowers: to which, rather than any dishonor should grow by me, I myself will take up arms; my pen will be your general, judge, and rewarder of every one of your virtues as a buyer.

I know already, by your forwardness, that you have deserved rewards and crowns for supporting the economies of a struggling Kenya; and I do assure you, on the word of my pen, they shall be duly paid you. In the mean my writers shall be in my stead, than whom never a magazine commanded a nobler and worthy subject; Biologicals in Kenya not doubting by your obedience to growers, by your concord in the auctions, and by your valor in the supermarkets, we shall shortly have a famous victory over the enemies of clean flowers.

There is no blinking at the fact that Henry wainwright is among the pioneers of biologicals in Kenya. From his office at Real IPM, he gave a very candid interview. With confidence and victory in our hands, we visited Dudutech in Naivasha and met Barnaba Rotich. The reknown biological trainer did, a must read article for any grower. Eva Pamba joined the train by penning down the best on biopesticides.

But in a larger sense, we cannot dedicate all our efforts to biological without discussing water; another endangered resource. Back in Naivasha, Greenfarming has launched a demo at Van Den Berg. This is a must see by all growers. Lanwrua efforts are bearing fruits as supermarkets have come on board to support their conservation efforts.

Let us therefore brace ourselves to our duties, and so bear ourselves that if we love flowers and want to buy the best, readers I will still say, 'This was your finest issue.

Have your finest reading.

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Quality new style, the grower guarantees

Recently growers of Alstroemeria got more opportunities to distinguish themselves at the auction clock. As part of the new quality policy presently being developed for clock sales, a pilot project was started with Alstroemeria. In this pilot the grower is responsible for his lot information and his product quality.

In case of complaints from buyers he deals with them himself. The information exchange between buyer and grower should strengthen the co operation in the flower chain, which should result in more client satisfaction. Seen from the buyer the new quality policy will lead to two product streams.

One stream is supplied under guaranteed quality, the other will not be guaranteed. The grower gives a guarantee of quality per lot, und strict regulations, or he will let the auction do that. Growers also can choose to bring lot without a guarantee of quality.

Enthusiasm

"Before starting this pilot we spoke about our new quality policy with the FPC and the Advisory Councils and we visited many growers", says Nico Jansen in

de Wal, manager of Quality dept. at FloraHolland. "At first growers had their reservations, but soon their enthusiasm grew. They want to show their buyers how reliable their product is. Buyers were a bit more critical, but they got less critical when we explained the story.

One buyer said he hopes a guarantee label will help him find extra reliable growers. We choose for a pilot with Alstroemeria. There will also be a pilot with plants. A group of growers of Alstroemeria has helped preparing this pilot en making the rules. Also the FPC Alstroemeria is involved."

A Working process

"The rules, developed by the Alstroemeria growers are the starting point of the pilot", says project leader Margareth Pennings. "If needed we can adapt them. It is a real pilot, a test. At the end of the pilot we draw conclusions. It can be that the growers and buyers involved are so enthusiastic, the we can also start with other products. But we could also conclude that the current policy isn't so bad after all. Probably we need more pilots to test ideas. But surely we will act together with growers and buyers.

Cargolux First Flight welcomed at Manston Airport, UK.

A Boeing 747-8F operated by Cargolux has been welcomed at Manston Airport, UK. The first flight arrived from Nairobi, Kenya bringing fresh produce and flowers for onward transport by road to distributors and wholesalers.

Charles Buchanan, chief executive at Manston Airport, says: "Cargolux is currently operating just four of these aircraft so we are delighted that Manston will now be welcoming the state-of-the-art freighter on a regular basis."

Buchanan joins members of the Manston Movements Forum who contacted Air Cargo News with the story of their quest to see this most advanced Boeing freighter – Cargolux "Nice guys".

Richard Forson, Interim President and chief executive

of Cargolux, comments: "We are very proud of our new freighter and delighted that Manston has the facilities to accommodate it."

Allan McQuarrie, Group manager freight development at Manston, says: "At Manston, a fully loaded 747 can be turned round in around 90 minutes with its cargo loaded straight onto trucks rather than into a warehouse to be moved at a later date.

"When moving fresh produce this can be vital as it can often add another day to a product's shelf life. We are also in a fortunate position as the lack of congestion means there will never be a situation where an aircraft is circling for an hour unable to land."

Source: Aircargo News

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Reprieve for flower exporters as EU extends EPAs deadline

Kenya flower exports will continue to enjoy duty free market access to the European Market, but only until January 2016. This follows last month's decision by European Parliament to extend the proposed deadline for concluding a market access amendment.

The amendment was to have been concluded and signed before the full Economic Partnership Agreements (EPAs) negotiations with African, Caribbean and Pacific Countries (ACP) — that include Kenya.

The European Parliament voted on September 12 to postpone the decision to implement a proposed European Council Regulation (1528/2007) clause that would see Kenya flower exports attract a 16 per cent duty from a 2013 deadline to January 2016.

The move to amend the clause before conclusion of full EPAs would have seen a number of ACP countries — including Kenya — lose duty free, quota free access to European markets by next year. It would have led to high labour costs and thereby reduce the competitiveness of Kenya's flower exports to the EU.

Conclude Deal

Reacting to the news, Kenya's Parliamentary Group representative to the ACP, Dr Joyce Laboso, said the time frame will grant Kenya — under the auspices of East African Community — ample time to conclude the Full EPAs.

"All the pending issues are about to be signed. The EAC region is moving fast to conclude the negotiations and Kenya will have signed by the time of the deadline," said Dr Laboso. ACP Secretary General, Mohamed Ibn Chambas, lauded the decision, saying it was a prudent move given the realities on the ground.

"The European Parliament has shown wise political judgment in extending the period for negotiation of EPAs to January 1, 2016. Negotiating the EPAs is a complicated process, involving a number of very complex and diverse issues which can impact heavily on our developing economies," Dr Chambas said.

"(Such deals) requires careful and thorough discussions, without the pressure of unreasonable deadlines. The two year extension can help to facilitate a more serene environment to make balanced decisions beneficial to all parties," he stated.

We should also recall that earlier, the European Parliament had called on the European Commission to show flexibility in the negotiation process. It is hoped that the Commission will demonstrate such flexibility in order to resolve the outstanding contentious issues between now and 2016."

Remove Access

Chambas reiterated that ACP was completely opposed to the proposal to remove quota free, duty free market access privileges for ACP countries while EPAs negotiations are going on.

"We encourage negotiations and a serene environment where the interests of ACP countries are taken into account in arriving at a comprehensive economic partnership agreement that is development friendly, and that also reinforces regional integration."

With the exception of the Caribbean, six other regional blocs in the ACP Group have yet to conclude full regional EPAs since discussions began in 2002. Countries have called for the resolution of various "contentious issues" before signing.

Issues of concern include the 15-year time frame before ACP markets must be opened up to free trade with Europe, the extent of goods and services to be liberalised, rules and requirements for goods to enter Europe — for example, phyto-sanitary measures — and rules of origin, export taxes, and numerous other key clauses in the agreements.

Countries to be directly affected by the Commission's proposal include Cameroon, Fiji, Ghana, Ivory Coast, Kenya, Swaziland and Zimbabwe. These would fall back on to the EU's Generalised System of Preferences (GSP) scheme, with increased tariffs on most of their key exports.

Taha and the Government Of Tanzania Engage Kenyan Government to Address Policy Issues Affecting Horticulture.

The long time saga on import levy on fresh produce from Tanzania has finally come to an end. During the bilateral meeting between Tanzania and Kenya held in Nairobi, Kenya agreed to abolish the import levy of Ksh 2 per every kilo of fresh produce from Tanzania.

In addition, Kenya agreed with Tanzania proposal to abolish transit fees of Ksh.1,000 per truck charged at Olkejuado County Council and harmonize road toll rates with those under COMESA. Tanzanian trucks crossing to Kenya are charged US \$ 32 while those from COMESA are

charged US \$ 10 per truck. Another long standing issue on prohibition of cutflower from Tanzania will now be resolved after the Kenyan government agreed to lift the ban by drafting the Plant Quarantine Agreement which will be signed before end of the year and allow smooth passage of Tanzania cut flower to Kenya.

Apart from these achievements, TAHA is continuing to advocate for improved horticultural investment climate by addressing a number of policy issues that affect the industry. TAHA is doing this by engaging relevant MDAs such as the PMO, TRA, MAFC, TBS, Vice

President office (Environment), MIT and LGAs. Specific issues that TAHA is addressing include: government waiver on importation of special plastic bags with thickness of less than 30 micron used for packaging of flower cuttings for re-export to Europe and Asia, abolition of produce cess, removal of import duty and VAT on greenhouses materials, setting up registration System for Biological Control Agents, establishing Bonded Warehouse system for horticulture, and promoting increased horticultural farmers participation in DADPS formulation and implementation processes.

TAHA Official Host of the Global GAP National Technical Working Group

The process of registering TAHA as the host of the Tanzanian NTWG was completed in July, which now allows the association to call and coordinate meetings with other members of the working group to push the agenda on standards (GlobalGAP certification in particular) in the horticultural sector. This is an important

step as the issue of standards begins to gain momentum. A regional program to promote and improve capacities in GlobalGAP certification is being implemented by a group of regional entities that include TAHA.

This project is funded by TradeMark East Africa and involves

the training of auditors/ lead auditors and the certification of a number of smallholder groups. TAHA will consolidate these efforts into in preparation for considerable support on the improvement of standards in horticulture from the European Union, which is preparing for a number of funded initiatives beginning in 2013

A High Level Kingston CODEL Visits TAHA

Linkages with markets and nutrition intervention, and Commercial production and export hub of vegetables at Arusha Blooms Ltd, a project which is supported by Tanzanian Agriculture Productivity Program (TAPP) – USAID among other things.

It was a historic visit as TAHA hosted the biggest group of

Congressmen and women ever to visit Tanzania in one visit. A total number of 10 Congressmen and women plus more than 10 Congress Staff and their spouses visited Arusha on 17th August 2012 with the objective to see the fantastic job TAHA and TAPP are doing among other things.

The Team visited TAPP– USAID

beneficiary's farm plot which demonstrated the use of good agricultural practices (GAP), linkages with markets and nutrition intervention, and Commercial production and export hub of vegetables at Arusha Blooms Ltd, a project which is supported by Tanzanian Agriculture Productivity Program (TAPP) – USAID among other things.

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Government Should Stop Anesthetizing Floriculture Investors

Export Processing Zone (EPZ) program was established in 1990 to provide an attractive investment opportunity for export-oriented business ventures within designated areas or zones. This sought to help the economy through increased productive capital investment, jobs generated, technology transferred, backward linkages developed and diversified exports.

However, to date no one has ever answered, why is flower growing not included in the program. The sector which is predominantly an export oriented business continues to struggle with a stringent tax regime which has slowed foreign direct investment for the last five years and a relocation of a number of investors to the more lucrative Ethiopia. All this has happened under the government's watch.

This leaves many asking was EPZ started as catalyst for investment and economic growth? Are EPZA programmes and policies intended to foster a bright investment for investors and further encourage them to take advantage of the numerous opportunities the country offers by virtue of its distinctive location as the 'gateway to East Africa'? Do the investors in the sector really enjoy the investor-friendly fiscal and monetary policies and supportive

political frame work? Quick mathematics will definitely give you a negative answer as the sector does not enjoy the tax benefits under EPZA investors despite been predominantly an export business not to mention been the highest export earner.

The sector is purely denied:

- 10 year corporation tax holiday and 25% tax thereafter
- 10 year withholding tax holiday
- Stamp duty exemption
- 100% investment deduction on initial investment applied over 20 years
- Perpetual duty and VAT exemption on company input including machinery, spare parts, construction material, raw materials, office equipment, packaging, heavy diesel and fuel oil, excluding other petroleum based fuel, motor vehicles that are from outside the zone and motor vehicle spare parts.

In contrast the sector is choked by various taxes which are mugging the investors to near death. Whereas we need to accept that tax evasion is a crime and retrogressive effort for economy growth, we also need to accept overtaxing is anesthetizing the investor. It is not gainsaying to state that the sector is on its worst times calling for the government to intervene

especially on taxation to make it more competitive.

Why the cry?

Kenyan growers have been forced to recapitalize their business due to government's inability to refund VAT. Value Added Tax which is a general consumption tax assessed on the value of goods and services which applies to all commercial activities involving production/ distribution of goods/ services and it is ultimately borne by the final consumer which is charged as a % of price – 0%, 12%, and 16% should be refunded.

However, the numerous meetings with the revenue authority have yielded nothing with some growers opting for court interpretation. "The revised VAT bill should require, under section 17, the revenue authority to make refunds within 30 days from when the tax payer has lodged a claim. Where payment is not made within the time specified an interest of two per cent per month or part thereof of the tax refunded shall forthwith be due and payable," said one of the growers who did not wish to be mentioned due to the sensitivity of the matter".

Adding, "Under sections 17 and 18 of the Bill, the tax payer should be allowed



to make an election, where input tax exceeds the amount of output tax due for the period, to either carry forward the input tax deductible in the next tax period or to receive a refund for the amount. This will be useful in the event a tax payer has made heavy capital expenditure that may have a significant impact on his cash flows".

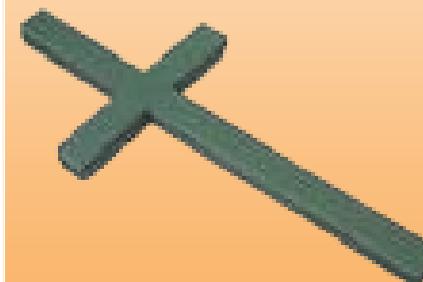
Other taxes

In addition to VAT, flower growers are entitled to pay numerous other taxes to the government. Some of the main taxes include:

Corporate Tax

This is the income chargeable to tax which in simple terms means tax charged on all income of a person, whether resident or non resident, which has accrued in or is derived in Kenya and is charged for each year of income. In the same respect there are incomes that are taxable which might comprise business income, rent and interest. A company

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is considered resident when its management or Incorporation is done in Kenya and most importantly the declaration was Gazetted Kenya. Most farms fall under this category with a few incorporated outside.

On the other hand a non-resident company has a permanent establishment in Kenya. It will be taxed on its Kenyan income at a non-resident tax rate. Dividends are taxed if accrued in Kenya and on the other hand dividends which are received from outside Kenya are not chargeable to tax in Kenya.

Withholding Tax

Dividends to residents are limited to withholding tax deducted at source on payments for income arising from various sources. In which the WHT is deducted on payments to both residents and non-residents. According to the legislative provisions by income tax act, section 35 provides the withholding Tax rates for both residents and non-residents, which will assist to generate cash to Kenya Revenue Authority.

There are operating mechanism that surrounds the WHT system, where incomes are subject to withholding tax includes; interest, dividends, agency, management, professional, training, technical, consultancy fees etc. This can either be from companies (final tax) or from some co-operative societies 'advance tax'.

Withholding tax is deductible upon payment of a taxable amount, it operates when a person is making payment and he/she is obligated to compute and deduct the tax at the relevant rate. Should also remit the tax so deducted by the 20th day of the month following that in which tax is deducted and Make an end of year WHT return by the 28th day of February the following year.

Pay As You Earn.

Like every other employer, their employees are subject to tax. Employment income is covered under Section 5 of Kenya Income Tax Act (ITA), it is taxable in the year in respect of which it is received or accrued and all tax year for individuals' runs from 1st January to 31st December.

The chargeable income is for resident and non-resident. "Employer" includes any resident person responsible for payment of, or on account of, emoluments to an employee.

Source of income is determined by the residential status of the employee and where he was recruited from, there is resident income which accrued permanent home and is for average residents, and there is also a worldwide employment income and nonresident income.

There are however basis of recognizing employment

income which are gains or profits from employment including; Wages, salaries, overtime and leave pay, Sick pay, commissions and fees; and Bonus, gratuity or subsistence, travelling, entertainment or other allowance or any other allowance received in the course of employment . In the same account there maybe amounts above which are charged on an "earnings" basis and not "receipts" basis.

In Pay as You Earn operating mechanism, the employer calculates and deducts tax from employees' monthly emoluments then employer records pay and tax particulars on each employee's tax deduction form (P9 forms) thereafter the tax deducted is remitted to KRA on or before the 9th of the month following that in which the deduction has been made however where no tax has been deducted, an employer should provide a nil PAYE credit pay-in-slip.

There may some Non-compliance issues that may arise due to; failure to deduct PAYE where applicable (on salary, allowances, benefits, etc), failure to submit returns or Nil returns, failure to remit PAYE, failure to produce required records or failure to use the appropriate rates and methods for taxing benefits. Whenever compliance issues occurs there maybe some common problems evolving in the PAYE service such as

lack of taxpayer/agent education, technicality of PAYE, lack of clear definition of certain provisions, or there are no legislation to cover emerging issues.

There are causes that can exhibit cost of non compliance which is outlined In Section 37 (2) of the Income Tax Act stating if an employer fails to deduct tax upon payment of emoluments to an employee; to account for tax deducted or to supply the Commissioner with a certificate prescribed under PAYE Rules. Penalty is 25% of amount of tax involved or Kshs. 10,000.

There are also other costs of non-compliance such as; interest on Unpaid Tax – Section 94 (1)A late payment interest of 2% per month or part thereof or failure to include employee PIN on any form submitted to KRA – Kshs 2,000 per omission and Section 72D of the Income Tax Act - penalty of 20% on tax remaining unpaid after due date.

Conclusion

A time has come and the time is now and if not now, it is right now. The government must stop pushing the flower sector into its death bed by ensuring that the sector enjoys the same benefits as the EPZs. The application of the double standards should stop and allow all investors to operate on the same level.



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How To Do A Good Spray Programme



Informing, advising and debating in order to improve the quality productivity of our floriculture sector in the region. That is the aim of Floriculture Magazine. With new molecules been registered into the country yearly and the agrochemical market in full swing, growers are taking a renewed interest in crop protection. To quench your thirst on safe and effective use of agrochemicals, meet EVA PAMBA. She will be running a column christened the Plant Doctor. In this issue she has picked a key area and will talk direct to the people who draw spray programs in your farms.

Q. Briefly discuss the choice of a good, safe and effective insecticide in a spray program.

A. Be sure to use suitable chemicals rather than just familiar ones. When choosing a chemical several factors are important – not just price alone. Is it effective against that pest/disease? Its mode of action? WHO classification? MPS/Kenya flower council coding? Will the with-holding period or other safety issues fit with your harvesting schedule? Can it cause any damage to the crop? Will it kill beneficial insects you are trying to protect? Do you know how to use the chemical to its full effectiveness? Do you have the right equipment and application methods for that chemical? Is it legal to use it on your crop?

Q. How do you handle the different chemical groups?

A. Rotate products basing on chemical group /target sites in case in the same chemical group but no cross resistance known. Check with FRAC /IRAC the comments on resistance (High, medium or Low resistance risk). Rotation of the Chemical Groups should be done every 2-3 sprays. This will manage the threat of insecticide resistance. These procedures will help to reduce the risk of increasing the level of resistant insects in the pest populations. You must have a chemical group rotation plan which you must follow religiously. You must also ensure that the chemical is correctly mixed and used under the right conditions (additives (+/-), temperature, pest threshold level etc.). When spraying, Make sure that you get good coverage to get the maximum kill and do not spray more often than you need to. Spray interval range from 3-7 days depending on the level of infection and infestation which is a function of weather.

Q. When do you spray

A. The grower must spray when Pest/Disease pressure is not too high. In this, you must follow all requirements of effective insecticide application, taking careful note of the different application requirements of some chemicals. Crop monitoring and insect scouting will inform you when the pests have reached a level where spraying is required. To reap maximum profit, the grower must follow the requirements of effective insecticide application. The grower must select an insecticide from the right chemical group according to the chemical rotation plan.

When spraying one should follow all important legal and safety requirements (e.g. protective gear, re-entry time and with-holding period from spray to next pick). For maximum benefits the grower should examine and closely follow all guidelines for effective use of the chemical (e.g. use of a wetting agent if

required, avoidance of high temperatures etc.), ensure mixing of the correct rate and volume for the crop and pest. One should avoid using any other additives in the tank mix unless certain that it is a safe and effective combination. Application must be done promptly and at the best time of day for a good kill - usually morning or late afternoon. Head of sprays must check pH of the mixture before adding the chemical to make sure it is between 6.0 and 8.0 (6.5 is best) and also find out how long it should take the chemical to work (minutes or days).

The grower must apply the chemical to achieve good coverage by making sure the spray equipment is calibrated to deliver the correct volume for the crop area and growth stage and that the jets and pressure setting are delivering the right droplet size and penetration to get good coverage The movement of the spray nozzles must achieve good coverage from top to bottom, between plants and under leaves. The sprayer must avoid run off with most chemicals as this often leads to leaf burn and can actually leave less chemical on the leaf for insects!

General rule is from 6.30 to 10 am and 2 to 3.30 pm depending on the weather condition. Make sure there is ample time for crop foliage to dry before night to avoid outbreak of foliar diseases. Thrips ,caterpillars,aphids should be sprayed between 8-10.30 when they are active.

Q. What should I consider when spraying?

A. Grower must take into consideration the weather Pattern. Disease /Pest Cycles are a times linked to the ecological prevailing weather conditions. Incorporation of protective measures is a key factor to delay or lower the Disease/Insect pressures. Cultural Practices should also be incorporated like proper Hygiene, crop rotation etc. Target pest/disease and Spray Volume is a key factor. Spray volume/Crop canopy ie: 3000lit mites, 1500lit Powdery Mildew, 800lit Botrytis,1500lit Downy Mildew, Insects 2000-2500lit/Ha. The grower should also consider drift effect. In case you are spraying Herbicides make sure that the adjacent crops are safe to avoid damage.

Q. What precautions should I take after spraying?

A. The grower must check plants after spraying to confirm the effectiveness of the spray application. This is done by comparing before and after spray pest numbers. You also need to check fruit, leaves and flowers for a comparison of pest numbers in 1-3 days depending on how long the chemical takes to work. Then finally check sticky traps twice over the next week for pest build up (at 2 and 5 days). Re-entry interval is also a key element.

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The Flower Sector Should Embrace Transfer Pricing

Transfer Pricing (TP) involves the pricing in place for transactions between related or associated enterprises and they have rules which are concerned with cross-border transactions. There are however transactions between related parties which are likely not to be at arm's length and this may create profits which would require adjustment for tax purposes. Cross border transactions with related parties usually involve significant amounts.

For instance Local operations may make minimal profits or even incur losses consistently. This results into reduced tax to the state and in most cases consistent claim of

tax losses. There is a need of Transfer Pricing rules so as to prevent the practice of tax avoidance by shifting taxable income from high tax rate country to low tax rate foreign country.

When there is misunderstanding in transaction between two entities TP rule helps in settling the disputes experienced since it creates an internationally accepted platform based on which disputes can be settled

There is an Arm's length price which is the price payable in a transaction between independent enterprises i.e willing buyer and willing seller. In a case of having an Irish parent flower distributor with

Kenyan Supplier subsidiary the Kenyan Company Undercharges Parent Company in Ireland for fresh flower cuttings, this results to a lower taxable income in Kenya and higher taxable income in Ireland.

The tax rate in Ireland is 12.5%, whereas tax rate in Kenya is 30%, which translates a higher after-tax profit for the whole organization, but less tax revenue for Kenya.

In Kenya TP is regulated by section 18(3) of the Income Tax Act, it further addresses non deductibility of certain expenses paid by a resident PE to its non resident associate.

The arms length principle

is locally applied where a person avers the application of arm's length pricing; such person shall develop an appropriate transfer pricing policy, determine the arm's length price as prescribed under the TP Rules and avail documented evidence of the analysis upon request by the Commissioner.

There are challenges under grading the transfer pricing from actively succeeding, there is lack of policies governing the system or sometime TP policy are only prepared when called upon. Failure to document the search of comparables especially where databases are used or to undertake complete qualitative analysis on comparables is another pulling back effort.



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Biological Control in Kenya – The Current Situation.

Henry Wainwright may not need introduction to most growers in Kenya, but this did not stop Floriculture Magazine from seeking his expertise on biologicals in Kenya. Below is his interview with our Editor.

Q. Why has biocontrol been taken up by the Kenyan grower.

A. The drivers for adopting biological control are many, but these include: market demand and the need for reduced pesticide residues on flowers; the realisation that chemical sprays do reduce quality and therefore using biological control can increase quality; increased operator safety, reduce risk to the environment, virtually impossible to get any pest resistance develop and finally that biological control agents (BCAs) are readily available.

Q. How did biological control start in Kenya.

A. The first commercial biological control agent used was the predatory mite *Phytoseiulus*. I think this gave growers confidence that biocontrol technology was possible and gave even better results than chemicals. From this understanding other BCAs have been introduced and successfully adopted.

Q. Surely using biological control agents is more expensive than using conventional pesticides.

A. I do not think this is the case otherwise why have so many growers adopted the technology. For instance with *Phytoseiulus*, this is produced in Kenya and in large volumes. The product is fresh, of high quality and growers can buy this at a price which is significantly lower than anywhere else in the world.

Q. What are the keys to successful use of BCAs

A. For predatory mites (*Phytoseiulus*, *A. cucumeris*, *Acaliformicus*) the keys to success are: use enough predatory mites to gain rapid control and minimise crop damage; ensure the scouts are on the ball in terms of identifying the hot spots when they are small; and a good knowledge of which pesticides are compatible with beneficial insects. Finally, do a quality check on the product you buy to ensure the predators are alive and active. For the Biopesticides make sure they are applied with good cover and frequent use in a prophylactic programme. Biopesticide do not give the grower a knock down so be patient and wait for their benefits to kick in. However know when the biopesticides can be tank mixed with conventional pesticide to get that knock down effect as well. For Real IPM our main priority is to work with our customers and

make sure the technology will work with the grower, and only then will we get a repeat sale.

Q. Does the grower need any special training for using BCAs

A. As with any new technology knowledge is fundamental. Therefore training and support to the grower are key. As an example training that Real IPM includes training of scouts, devising and making compatible spray programmes, resistance management training, and BCA application.

Q. Are there any problems with biological control, does it ever fail?

A. The growing of a crop using biological control requires more management skills. Growers have to plan and anticipate and look at the longer term. Biocontrol is not a quick fix, therefore better and more intensive scouting, planning and do not cut corners, it is false economy.

Q. Why has biological control been successful in Kenya

A. Innovative growers who are early adopters of this and other technologies, available and relatively low cost high quality products, and good technical support from suppliers. This contrasts places like Ecuador and Colombia where biocontrol is used much less, and this is partly because all BCAs have to be imported and so more expensive, and there is less knowledge on the ground about the technology.

Q. Where next for Biological control in Kenya

A. We are already seeing many more BCAs being introduced into Kenya from producers in Europe and Asia. With the continued expansion of the floriculture sector in Kenya this will create more demand and be an attractive market for BCA companies outside Kenya. This will give the growers a wide choice of products and even more scope to reduce their conventional pesticide use. However care is required to ensure that the grower is not being sold products of dubious quality and activity. The traditional pesticide companies are adding biopesticides to the products so they will become mainstream products from the likes of BASF, Bayer and Syngenta. For Real IPM we are confident of the future and are looking to expand our range of products to better serve the growers of Kenya.

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Making Integrated Pest Management really work!



WHY BIOLOGICAL CONTROL?

History

Arthropod pests and diseases are major constrain to the production of flowers resulting in poor quality and low yields. In past years, growers have often used lethal doses of pesticides in an effort to control pests but due to abilities of insect pests to build resistance coupled with poorly calibrated spray equipment, such applications have become ineffective in achieving the desired control. Inevitably, growers resort to higher application rates and/or more frequent sprays, unfortunately not solving the problem but leading to higher costs with significant degradation of the environment while risking dangerous residue levels on the crop.

Adding to the challenges of growing, consumers are increasingly becoming aware of the negative effects pesticides have on produce. Retail outlets are therefore, based on consumer views,

pressuring producers to grow with minimum pesticide input and producers have had to make concerted efforts to utilize other crop pests and disease control measures including use of Biological Control Agents (BCAs) to minimize their reliance on chemical sprays.



Protective clothing required while applying pesticides.

Worldwide Trend

The trend worldwide, therefore, has been to tighten regulation on pesticide use, with some pesticides having registrations withdrawn by governmental agencies. It is not surprising that interest in alternative non-chemical strategies has increased over the last decades. Biological control (biocontrol), the deliberate release of an organism in an environment with the intention of keeping pest populations below economically injurious levels has shown promise as a substitute for pesticide applications.

Biocontrol Strategies

The biocontrol agents (BCAs) employed in floriculture include predatory insects and mites (predators), parasitic insects (parasitoids) as well as micro-organisms (pathogens and antagonists) such as bacteria, fungi, viruses and nematodes. There are three main techniques of biological control: *classical*, *augmentative* and *conservation* control. Classical biological control (exotic introduction) is the release of foreign specialist biological control agents (BCAs) to a new locale. In augmentative biological control, beneficial organisms are introduced to supplement the already existing natural populations. This can further be subdivided into two; inoculative releases (introductions involving few numbers), inundative releases (mass introductions). Conservation

biological control involves manipulation of the habitat to favour BCAs existence and preservation.

Integrated Pest Management (IPM)

Biological Control Agents (BCA's) assist in controlling pests and in combination with application of 'softer' pesticides, BCA's prolong the useful life of these pesticides. Adopting an Integrated Pest Management (IPM) approach reduces the use of harsh chemical sprays while reducing exposure of workers to such chemicals. Using an IPM program is the *Environmentally Intelligent Farming* option that ensures production of crops year on year without fear of pesticide resistance or accumulation of harmful chemical residues on the final product. The key is managing operation through IPM by using biocontrol options as the backbone and choosing inorganic pesticide products carefully.



Diglyphus isaea

IPM and Biological control has numerous advantages over the conventional pesticides strategies. First, it is a long lasting sustainable mode of pest control, hence cost effective in the long run. Secondly, the handling and application of biological organisms does not require complex protection gears/equipment. This is because BCAs are considered safe not only to the handler but the environment as well. Thirdly, the dangers associated with pesticides resistance are negated when biological control is employed.

Success Stories

Dudutech, a Division of Finlays Horticulture being a pioneer of biocontrol and IPM in floricultural industry in Kenya has successfully helped develop practical and working IPM programs through farmer trainings, production and supply of biocontrol agents including Phytoseiid mites *Phytoseiulus persimilis* and *Amblyseius californicus* which have proven to be very effective against red spider mites resulting to significant reduction in application of acaricides in farms that have embraced biological control of this pest. Other biological products from Dudutech include; the parasitic wasp *Diglyphus isaea* against leafminers; antagonistic fungus *Trichoderma* against fungal root rots; entomopathogenic fungi e.g. *Beauveria bassiana* against sucking arthropod pests among others. However, there are consequential challenges associated with biological control, for example, BCAs do not show instant results, hence claims have been made that biological control is not as effective as the other methods of pest control. Nevertheless, by factoring in the times of application, and proper monitoring for pests, the aforesaid challenge can be mitigated.

Unlimited Potential

From the foregoing it is evident that biological control is an integral component of pest management in floriculture with unlimited potential. As a way forward and to ensure maximum uptake of the pest control tactic, all concerned stakeholders need to be sufficiently empowered so as to harness the immense benefits of biological control.

Why growers are Embracing Biopesticide.

Biopesticides are pesticides derived from naturally occurring substances like plants, animals, Microorganisms and certain minerals for the control of invertebrate pests, weeds, plant parasitic nematodes or microbial pathogens of crops in other words we can say the use of animals and organisms that eat or otherwise kill or out-compete pests. These agents usually do not have toxic effects on animals and people and do not leave toxic or persistent chemical residues in the environment.

Biopesticides are classified into 3 categories in relation to its natural origin.

i) **Microbials**-this include nsaturally occurring Bacteria, Viruses, Fungi and protozoa thst produce toxins that are used to For the control of invertebrate pests, weeds, plant parasitic nematodes or microbial pathogens of crops. Eg Bacillus Thuringensis and Beauveria Bassiana.

ii) **Macrobials**- naturally occurring predators, parasitoids and entomopathogenic nematodes for the control of weeds, invertebrate pests, or pathogens of crops and pests of livestock and public health. Eg Phytoselluis.

iii) **Biochemical**: Phytochemicals and Animal derived which have some specific target in the pest system this include growth regulators, pheromones, botanical products, e.t.c) eg Giberellic Acid and Azadirachtin.

Advantages of biopesticides

- Biopesticides less toxic than conventional pesticides.
- It's safer on the environmental

compared to convectional Pesticides no persistent residues to the environment.

- It's safe on edible crops as there is no concern on the residues.
- Can be more effective than chemical pesticides in the long-term.

Disadvantages of Biopesticides.

- High specificity: which may require an exact identification of

the pest/pathogen and the use of multiple products to be used.

- Often slow speed of action (thus making them unsuitable if a pest outbreak is an immediate threat to a crop).
- Often variable efficacy due to the influences of various biotic and abiotic factors (since biopesticides are usually living organisms, which bring about pest/pathogen control by multiplying within the target

insect pest/pathogen)

- Living organisms evolve and increase their resistance to biological, chemical, physical or any other form of control. If the target population is not exterminated or rendered incapable of reproduction, the surviving population can acquire a tolerance of whatever pressures are brought to bear, resulting in an bearable populations..

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A New Insecticide From Bayer CropScience

MOVENTO®

Active ingredient: Spirotetramat 150g/lit.

General Information

Movento® OD 150 is a new and unique insecticide of the ketoenol family that has been developed by Bayer CropScience. It is characterized by a broad and long-lasting efficacy against sucking insects, and a feature unique to the insecticide world: 2-way systemic activity.

Mode of action

Movento OD 150 is a lipid biosynthesis inhibitor that acts on the juvenile stages of insects causing incomplete moulting. Treated female aphid and whitefly adults often deposit only non-viable nymphs and eggs and show a marked reduction in fecundity and fertility, hence reducing insect populations. It addresses a completely new target site never exploited by any other insecticide.

2-way systemicity: Up and down the plant

All commercially available systemic insecticides feature one-way systemicity, i.e. after leaf uptake, they are mainly translocated in the plant's xylem where water and nutrients are passively transported upwards by the transpiration pull of the leaf stomata. Movento®'s unique physico-chemical properties, however, allow it to be translocated in the plant's phloem, which mainly transports sucrose and other organic compounds upwards and downwards, i.e. two-way systemicity.

After foliar application, Movento® is translocated along in leaf cells via the phloem of the smallest veins to other parts of the plant such as developing leaves, buds, fruits and roots

Formulation

Movento OD 150 is formulated using Bayer's new oil based solvent free O-TEQ innovation. This formulation ensures optimal uptake and retention of the active ingredients by the leaf resulting in enhanced efficacy.

Application

Movento® OD 150 is applied as a foliar spray treatment using various water volumes, depending on the crop and foliage height/density, to ensure that all aerial parts of the crop are well covered.

Reliable partner for resistance management

The fact that Movento® belongs to a completely new chemical class of insecticides means cross-resistance to other insecticides is unlikely. In order to sustain its long-term efficacy Movento® should be used according to the manufacturer's recommendations.

MOVENTO® is a registered trademark of Bayer Group

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Benefits

- New chemistry with a completely new mode of action
- No cross resistance with existing chemistry
- Broad spectrum efficacy on sucking pests
- Long lasting control
- Compatibility with Biological Control Agents
- Protection of newly grown parts of plants (shoots and roots)
- Translocation to most of the difficult to reach parts of plants
- Improved control of hidden pests

Demo Project in Kenya Opens its Doors

Saturday, 15th September, saw the official launch of the Green Farming Water Management Demo Project. This is an important project in the area of water management initiated at the site of the Van den Berg Roses company in Naivasha, Kenya, with the most important aim of saving 40-60% of irrigation water while

achieving a 10% increase in yields. In co-operation with the Kenyan Jomo Kenyatta University of Agriculture and Technology, Wageningen UR will be monitoring the project and present the results.

This project was developed by a consortium consisting of Dutch suppliers to the horticultural

industry. Bosman is in charge of project implementation from A to Z, Hoogendoorn supplied the automation, Hatenboer-Water provided the water disinfection system, Van der Knaap is the coco substrate supplier, Genap the water tanks, and DLV Plant is responsible for project administration and the final financial reports. The

technology implemented offers potential for gradually achieving water savings and has been adapted to local Kenyan circumstances and needs. Small components of this project can also later be used by other Kenyan sites.

The official opening was attended by some 100 companies and officials from Kenya and the Netherlands, amongst them Harm Maters, Chairman of Green Farming; Jane Ngige, CEO of the Kenya Flower Council; Hans Wolff, Agricultural Counsellor at the Dutch Embassy in Nairobi, plus delegates from the Fresh Produce and Exporters Association Kenya and the Horticultural Crop Development Authority. Various speakers explained the aims of this project, amongst them Chris Blok of Wageningen UR.

The site's owner, Arie van den Berg, was proud to tell us: "This new project allows us to save 40-60% of irrigation water, and thus fertilizers with it. We expect this to achieve a 10% increase in yields, too - and who wouldn't like that!"

After the presentation, the project was officially opened when the ribbon was cut. This was followed by a tour through all the sections of this project, such as the substrate system, the water storage section, the water treatment section and the fertilizer unit.

In the course of this project, set to run over 2 years, Green Farming will keep Kenyan companies and officials informed about all results achieved.

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7 Seven Tips For Vase Life

1 Grow long-lasting varieties
Some varieties naturally last longer than others or have better tolerance for adverse conditions such as storage or certain diseases.

2 Observe good hydration procedures
It is essential to hydrate rose stems after cutting. Place stems in a freshly prepared clean solution, in clean containers for 1-3 hours at room temperature, or longer if flowers are in the cold room (absorption of flower food will take longer in the cold). Longer hydration periods do not prolong vase life significantly although they can influence flower opening. Proper irrigation in the field, on the other hand, can have an effect on post-harvest life. Plants that do not receive proper watering and are subjected to water stress during production yield flowers that will have shorter vase lives.

3 Observe good sanitation
Dirty hydration solutions, dirty baskets or dirty water all lead to the accumulation of micro-organisms that can plug rose stems and reduce vase life. Flower solutions should thus be freshly prepared and never reused. Containers and tools used to cut or trim stems need to be disinfected using an antibacterial solution. Hygiene is also important in the cold rooms, which should be cleaned frequently. Air purification systems in the cold rooms that remove ethylene may be a good investment.

4 Treat against ethylene effects
Response to ethylene exposure varies among rose cultivars. Sensitive varieties clearly benefit from treatment with anti-ethylene compounds such as STS (Silverthiosulphate), which is applied as a solution, or 1-MCP (1-methylcyclopropane), a gas that can be applied in closed environments or flower boxes inside small bags that slowly release it during transport. These compounds stick to ethylene receptors in plant tissues and block their response to ethylene. It is important to note, however, that high temperatures

enhance the adverse effects of ethylene, so adequate storage is extremely important.

5 Take measures to prevent botrytis
Grey mould, caused by the fungus *Botrytis cinerea*, is probably the disease that causes effects on rose quality. Although most often seen at the post-harvest stage, the fungus is generally brought over from the field- so good control and management during the production process is essential. Further, cut roses should be packed dry, as free moisture inside boxes encourages development of grey mould spores, which will remain latent if no water is available as they cannot germinate. Recently, a new product consisting of a paper that releases chlorine dioxide has been trialed with interesting results. It is inserted colonies during shipping and storage by up to 85%.

6 Store flowers cold and short
Cut roses should be packed inside the cold room to prevent condensation to the greatest extent possible. The optimum storage temperature is between 2°C and 3°C, and this should be constantly monitored to ensure that it is stable, as temperature fluctuations adversely affect vase life. Flowers should be stored at the farm for as short a time as possible, and never for more than 1-2 days. The same applies to wholesale operations.

7 Find reliable partners
Ensuring adequate and stable cold chain and good vase life requires growers to find reliable partners throughout the distribution process. This includes cargo agencies, wholesaler and even retailers. Simple temperature monitors that can be placed inside boxes are now available and can provide useful information to help identify steps in the chain when conditions are not optimal and need to be corrected. In summary, guaranteeing good vase life means that the grower's job does not stop once the flowers leave the farm- it may just be the beginning.

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- 2 An economic solution at very low use rates for the control of caterpillars, Thrips and other insect pests.
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New Mode of Action

Fluopicolide works by disrupting the formation of spectrin-like proteins that play a vital role in maintaining the pathogen's cytoskeleton stability.

Built-in Resistance Management

Combining the complimentary modes of action of two active ingredients, INFINITO provides growers with a powerful new tool to counter resistance development. Their different modes of action bolster the product with a solid inbuilt anti-resistance mechanism.

Application rate

1.2- 1.5 litres per hectare

Perfect Coverage

INFINITO formulation technology produces complete and even distribution of the product on leaves, stems, and petioles. Small droplets with excellent sticking properties cover the upper and lower surfaces of the leaf, un-hindered by leaf hairs. After drying, *fluopicolide* particles are evenly distributed to provide complete protection against the pathogen.

Fast Uptake

Full protection is achieved on the day of application, through its contact and systemic action. The *propamocarb* moves quickly into the leaves and stems taking some of the *fluopicolide* dissolved in the spray solution with it.

Long Lasting

The even distribution of *fluopicolide* particles provides a reservoir of product to protect the leaf surface against further infection. *Fluopicolide* persistent uptake into the leaf and stems throughout the spray interval maintains a high level of protection. *Fluopicolide* has strong translaminar absorption.

Weather Independent

INFINITO adheres firmly to the leaf even when the surface is wet with dew or recent spray. Once dried on the leaf, the product remains fixed and resists wash-off by follow-up sprays.

Conclusion

INFINITO provides the robust foliar protection and strong anti-sporulant activity. In addition, it brings all the performance features needed to deliver the ultimate flower protection:

- Leaf and stem protection
- Strong translaminar and anti-sporulant activity
- Activity at every key stage in the pathogen's life cycle
- Fast and long lasting action
- Effective under all weather conditions
- Built-in resistance management
- Favourable environmental and toxicological profile
- Excellent crop safety
- Low dose rate
- Easy to use liquid formulation



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The ultimate rose protection

- outstanding defense against downy mildew
- long-lasting protection in all weather conditions
- leaf and stem protection all the way to harvest
- anti-sporulant activity and translaminar effect



Bayer CropScience

Crown Gall Disease:

Strategies for Management in Rescuing the Plant Growth



Crown gall is a disease caused by *Agrobacterium tumefaciens*. Produces galls on the roots and at the crown of woody plants. The disease affects many plant species belonging to over 93 plant families. Is difficult to control since it is found inside plant tissues including the vascular bundle

The Infection starts from infected soil where a susceptible host is planted. Other sources of inoculum are irrigation water, infected planting materials, pruning equipment, cultivation equipment, rouged plants and detached or disintegrated galls put back in the soil.



The bacteria enter the plants through wounds and the higher the inoculum the severe the infection. Infection can be harbored by the plant for a long time without symptoms only to appear later when the plant is wounded.

Once the bacteria enter the wounds into the plant it takes about two weeks for the galls to start appearing. The gall cells are not protected by an outer epidermal layer and with time they start cracking and become brittle and start disintegrating. Old galls darken and look rugged and sometimes become infested with insects that feed on the cells. Eventually they fall off back into the soil and are released to start the infection cycle once a host is replanted.



In Kenya Crown Gall is widespread in rose farms and nurseries. According to growers it is present in every rose firm at varied levels. Strict nursery practices are recommended to keep the disease away from planting materials so as to stop its spread to other rose farms. In earlier days some nurseries closed shop due to widespread infection of their nurseries A survey done by Real IPM 2007 reported that it losses range from 5 to 60% depending on age and variety and

a follow up survey done by Weller in 2006 found six out of 400 isolates of *A. tumefaciens* isolated from East African rose samples were pathogenic.

This disease causes economic losses on susceptible crops. *Agrobacterium tumefaciens* causing the disease can travel throughout the root system and can wipe out a crop. Some of the highly affected species are apples, pears, cherries, apricots, grapes and ornamentals like roses and chrysanthemums. Vegetables like tomatoes and sweet pepper are not left out either.

Sources of infection & Disease Management

Some infections start from infected soil where a susceptible host is planted. Starting with disease free soil is paramount- through fumigation with products such as metham sodium.

One need to ensure usage of clean and treated water is effective and efficient because other infections comes about in irrigation water/recycled water.

It is advisable to use disinfectants such as sodium hypochlorite after every cut to minimize Contamination on pruning equipment. Good sanitation practices helps rouged plants and detached or disintegrated galls back in the soil, the rouged plants should be collected and destroyed by burning.

In the soil the motile bacterial cells respond to the root exudates, the sugars and the amino acids, phenolic compounds like acetosyringone which strongly attract the bacteria especially where the plant tissues have been wounded. The bacteria enter the plants through wounds, to prevent the wound

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Elgon Kenya Limited

helps Kenyan Flower sector bloom

BY NELSON MAINA

Floriculture is a highly specialized capital intensive industry, characterized by very high actual production per hectare through rigorous care of the flowers for optimum returns.

Trade in cut flowers account over half of Kenya's fresh horticultural exports with the industry providing direct employment to an estimated 50,000 Kenyans and a further 70,000 employed in related industries. In 2011 the sub-sector exported flowers worth Kshs.44.51 billion up from Kshs.35.56 billion in 2010, a clear indication that the industry is expanding with roses continuing to dominate the export market.

And with stringent quality measures set by the export market, farmers require superior products and services to meet the required standards.

Towards this, Elgon Kenya Limited a leading supplier of floriculture inputs, related products and services in Kenya, is helping many flower farmers realize their dreams by supplying them with high quality products and technical services essential in the proper development of flowers.

By virtue of being the exclusive distributor for a range of products from BASF, Chemtura, Sumitomo, Bayer East Africa, Dupont, Arysta, Cheminova and Syngenta to name a few, Elgon Kenya can arguably be described as having

served the horticulture market, with bulk of business tied in the flower industry.

Among the wide range of products and technical services that Elgon Kenya distributes are; fertilizers (both greenhouse and field grade), insecticides, fungicides, herbicides, plant growth regulators, post harvest treatment chemicals and vegetable seeds. Over and above distributing these farm inputs, the company also manufactures packaging materials and irrigation equipments besides providing agricultural consultancy and services.

Apart from Kenya, the company's products enjoy presence across the East African region in countries like Tanzania, Uganda and Ethiopia.

Below are some of Elgon Kenya Limited chemical products targeted for the flower industry;

Impact 125 SC is a broad-spectrum triazole fungicide for control of powdery mildew and botrytis in roses, rust and botrytis in carnation among other plants.

Silwet® Gold is an adjuvant which belongs to the organosilicone group known as superspreaders. Silwet® Gold decreases surface tension of aqueous solutions to much lower values when compared to traditional and conventional adjuvants. The result is that this "superspreaders" provided significantly enhanced spreading of spray solutions over the treated plant surfaces. Silwet® Gold increases spreading of the applied spray solution, which helps carry pesticides also to morphologically

complex and thus difficult-to-reach parts of the plant.

Preempt 20 EC is a broad spectrum insecticide containing juvroid Piproxyfen and a pyrethroid "Fenprothrin" for control of whiteflies and other complex pest such as caterpillars, thrips, leaf miners, aphids flower beetles, mealy and budworms

Evertrap 50SP is a spluble power, systemic & contact insecticide for the control of *Spodoptera exigua* & *Heliothis armigera* in Roses & Tomatoes & Chewing & Sucking Insect-Pest in Paddy Crop.

Eupirimate: A systemic fungicide with translaminar and vapor action for control of powdery mildew on Roses. Eupirimate is effective on primary infection, protects the crop against secondary powdery mildew infection by penetrating through the leaf (translaminar) to kill the existing infection, and protects the underside. It controls powdery mildew even in a dense crop canopy, due to its vapor action.



Your Leader in Crop Protection

Management of Crown Gall Disease

From Pg. 32

formation ensure that wound causing insects, or nematodes are managed, reduces infection by agrobacterium.

Cultural control methods Gall removal followed by application of disinfecting paste may prevent the gall regeneration at the treated site but will not stop systemic spread of the pathogen.

Tools used to cut plants should be disinfected using Sodium hypochlorite or Jik between cuts to avoid its spread from one plant to another. Dilution of about 1% NaOCl in water is effective against the bacterium.

Corn oil e.g. Elianto, Fresh fry is applied on infected plant parts, which suffocates the gall, the galls are cut then pasted. Olive oil—applied on infected plant parts after the galls are cut.

Copper based fungicides such as Kocide applied neat. Copper based products are reported to be effective but can be phytotoxic if sprayed directly at the same concentration on the foliage.

The infected part is cut and Copper based fungicides mixture with petroleum gel and applied on the wound. Spore kill (Didecyl dimethyl Ammonium chloride) is also used to disinfect cutting tools.

Biological control

Kerr discovered that non-pathogenic strains of Agrobacterium radiobacter

have the ability to compete with pathogenic strains for food and space. A. radiobacter produces an antibacterial compound, (the bacteriocin), agrocin 84 that inhibits growth of the pathogen by interfering with the enzymes involved in nopaline production.

K84 inhibits strains of A. tumefaciens containing a nopaline-type Ti plasmid which are also the most common strains attacking horticultural crops.

Although there are also demerits it acts only as a preventative treatment, not to cure infections, so it is applied at a high population levels to protect any wound sites against pathogenic invasion.

It is also sensitive to sunlight, freezing and high temperature. Some resistance to A. radiobacter strain K84 has been reported to occur due to the transfer of the genes responsible for conferring immunity to agrocin 84 antibiotic

Chemical control

There are no effective chemical controls for crown gall, however antibiotics and copper bactericides are able to kill the bacterium on contact, and they do not

penetrate the plants and therefore fail to come into contact with bacteria residing systemically. Management of crown gall in nurseries encourage use of substrates for production-Roses grown on substrate like pumice and cocopeat get less affected compared with the soil grown roses.

Hot water treatment of infected planting materials reduces the disease— Heat therapy is a major method used in the sugarcane industry for the control of Ratoon stunting disease in sugarcane



(at 50oC for 3 hrs).

If the bacterium is grown near its maximum temperature (about 30oC) then the plasmid is lost and pathogenicity (of

Agrobacterium)

also is lost (Deacon 2011). – Hot water treatment may help in nurseries. In Kenya a number of pest control products have been tested locally for the control and management of crown gall.

A product based on Bronopol 27%w/w (Enrich BM) was tested for the control of Crown gall in roses and other bacterial diseases and the results showed it mimics the natural Systemic Activated Resistance (SAR) by changing the contents of the phenols,

proteins, nitrogen and certain enzymes and makes the plants resist bacterial attack.

Efficacy trial results showed that Bronopol could control other bacterial diseases such as bacterial wilt in tomatoes and potatoes, halo blight in French beans and bacterial soft rot in brassicas.

The trial is yet to be concluded but studies elsewhere show that use of copper hydroxide as a topical application only acts on a limited part of the plant. Copper is not systemic. Galls still form elsewhere.

The Pest Control Products (PCP) Act - enacted in 1983 to regulate the importation, exportation, manufacture, distribution and use of products used for the control of pests is yet to be fully effective due to some laxity in the concerned authority sectors.

Despite the presence of KEPHIS inspectors at the port of entry, some plant materials may be imported in small quantities in brief cases and may be used as an avenue of introduction of new diseases.

Applicants submit applications for introduction of new pest control products based on anticipated market returns and not based on the economic importance of emerging diseases or pests. As such new pests may continue to be a challenge to growers where it is seen to be a minor problem to the agrochemical industry.

Flower Repatriation Blooms Over U.S.\$200 Million Mark

Foreign exchange repatriated from flowers grew 14pc to 212.5 million dollars in 2011/12 for reasons attributed to the implementation of a new control mechanism imposed on exporters. The previous fiscal year's revenue of 184 million Br was obtained from an export of 1.8 billion stems. The per-stem value of the repatriated revenue remained the same, but more money was obtained because the export had grown to 2.1 billion stems.

Earlier practices had it that the customs officials selected sample boxes and made a count of the stems in them. The government claimed that this was problematic to trace actual number of stems exported, hence creating a condition for the exporters to retain more of the revenue out of the country. Exporters were expected to repatriate 10 dollar-cents for each stem.

That changed in the last fiscal year. The government introduced standard 12-kg boxes, holding 10.8kgs of flower. The repatriation was also raised to 3.68 dollars per 12kg. These boxes hold around 300 stems of lowland flowers and 220 larger highland flowers. The expectation was that the introduction of these boxes would partly help achieve revenues of 274.6 million dollars from the export of nearly 2.8 billion stems, according to Ethiopian Horticulture Development Agency (EHDA).

Before this year, they did not know the exact amount exported, because the auditing depended on counting number of stems in sampled boxes. Because of this they were not able to control the amount of money repatriated. "Such improvements in revenues is achieved because of the new export management," an expert at the agency claims. The EHDA introduced the boxes in an

export management directive issued in February 2012. The new measure there is more control on how many stems they actually exported. "This system has also relatively reduced the amount of flowers that got damaged during transportation and hence each stem generates foreign currency," the horticulture expert at the Agency said.

Previously many flowers were damaged as the customs officials opened each of the sample boxes, counting every piece, according to a flower grower in Debre Zeit. The just ended fiscal year was good not only for the government. Exporters had enjoyed favorable international prices, too. Large stem flowers were sold for as much as 1.27 dollars

Meles Zenawi Blossoms Through Flower Sector Rise

Flower growers paid their tribute to the late Prime Minister Meles Zenawi on for his contribution to the sector. In an event organized by their association in Jacaranda hall Hilton Addis that was themed black with photos of Meles players in the sector were all praise to their bossom friend, the late Zenawi.

Despite its late entry in the Ethiopian economy, the horticulture industry is a pioneer in representing a successful and fast turning into a non-traditional export product within a short period of time. It has made Ethiopia to become the second largest exporter from Africa next to Kenya Overtaking Tanzania, Uganda and Zimbabwe.

It is also the fifth largest non-EU exporter to the EU cut flower market. "It has taken Ethiopia five years to reach half of what Kenya achieved in three decades. At this rate, Kenya could be overtaken by Ethiopia in a decade," they said. Owners of Ethiopia's flower farms say that they have enjoyed the encouragement and support of the late Prime Minister

in February 2011/12, up from 1.13 dollars, while small stem flowers were sold for 0.47 dollars, up from 0.35 dollars, the previous year. "This is because there was a supply shortage in the international market," an exporter said.

With the 73 current active flower farms, flower has finished the fiscal year being the fifth foreign exchange earner in Ethiopia in 2011/12. Out of the total 1,313ha of land covered by flowers in Ethiopia, 480ha is located in the lowland vicinity of Zeway and Awash and the rest in midland and highland areas around Addis Abeba, Holeta, Sululta, Sendafa, Sebeta and Bishoftu.

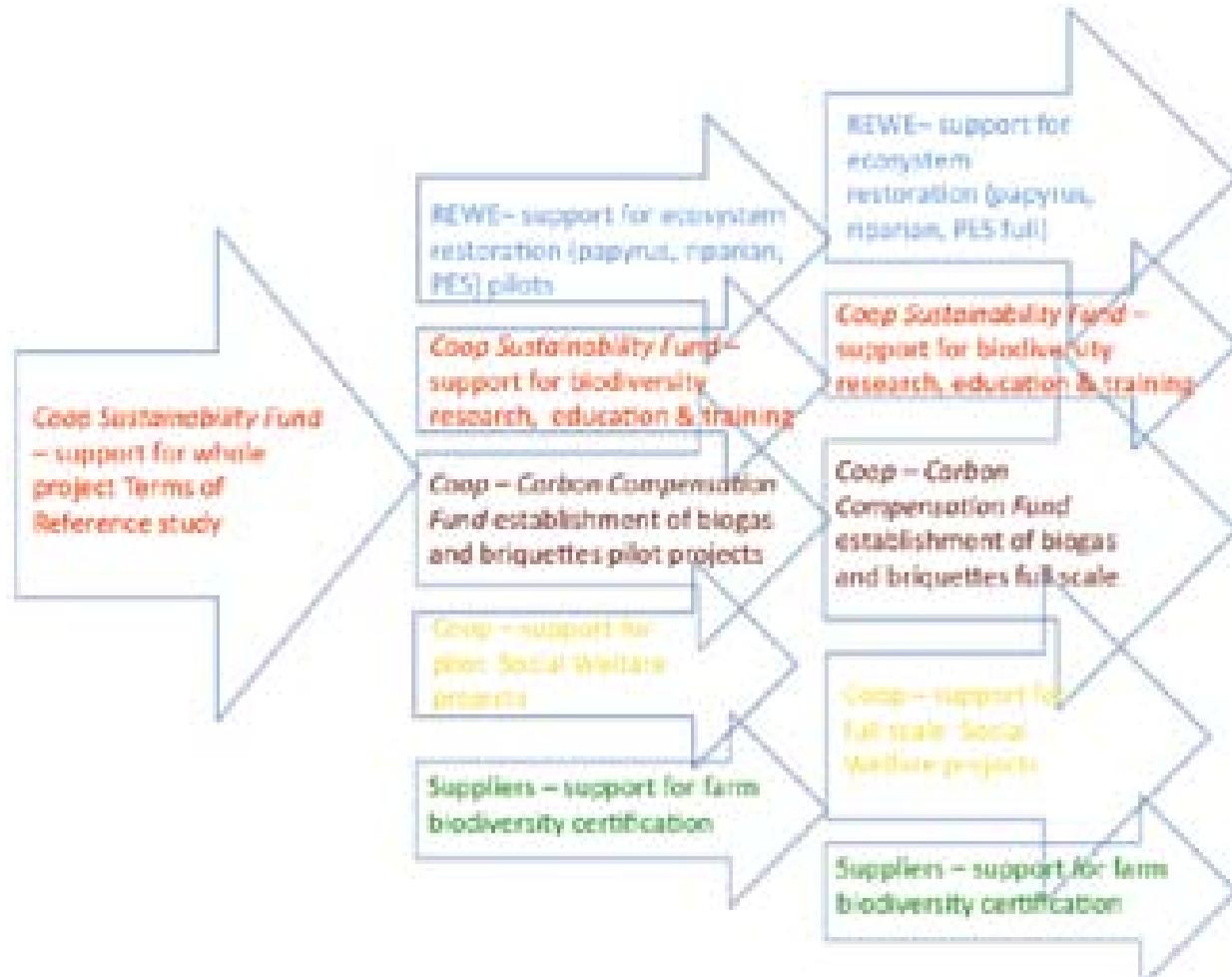
Meles Zenawi from as early as 1993 when a few farmers introduced commercial flower farming into Ethiopia.

The horticulture industry, which many in the sector described as coming out of nowhere, begun through investments in 1993 by four individuals, Eskinder Yoseph owner of Meskel Flowers plc, Tsegaye Abebe of Ethio-Flora, Tesfalidet Hagos of Valley Agricultural Development and Kibreab Abeba of Tepo farm.

These individuals who have farms around the vicinities of Addis Abeba were producing vegetables and flowers in an open farm. These farmers started their business by leasing land from small farmers in Oromia regional state. In 1996, they were ordered to handover the famers back to the original farmers, because Oromia's laws at the time did not allow leasing land from farmers. The suddenly landless flower farmers took their case to the Office of the Prime Minister, according to Tsegaye.

Supermarkets Fund Malewa Delta Rehabilitation.

The Lake Naivasha Water Resource Users Association (LANAWRUA) formed under the Kenyan Government's Water Act (2002), has been allocated funding by chain of supermarkets to rehabilitate wetlands associated with the Malewa River around Lake Naivasha's northern shoreline. COOP, group of Switzerland Supermarkets are funding water supply and erosion eradication while REWE from Germany have funded Northern Zone rehabilitation of Lake Naivasha. This project supports a diverse group of water users in addition to being a natural wetland of rich biodiversity and environmental interest writes our Naivasha Correspondent



Supermarkets which have directly supported the process of making the Lake Naivasha basin sustainable have earned the right to proclaim, truthfully, to its customers that "buying this horticulture product is helping to make Naivasha sustainable".

They also possess a very strong argument against the growing criticism that they are peddling the "virtual water" that semi-arid Kenya needs so badly – by showing that the water in the products that it purchases is husbanded and used to provide income for Kenyans and taxes for the

government.

They will also be contributing to a change of attitude towards water consumption among all users – one that by giving water its true value, leads towards its sustainable use within Kenya. Coop will also create a global case study of water sustainability, with associated publicity benefits.

Universal Approach.

Lanawrua, formed in response to the requirements of the Water Act 2002 and the need to manage the allocation

and use of water resources from the Lake and adjacent groundwater conservation area has made rehabilitation of Lake Naivasha into a top priority.

Lanawrua agrees that everybody has a right of access to water and conflicts related to access to water are prevalent in this area. Unlike in many areas Lanawrua are working closely to women, the disabled and the disadvantaged who are most affected by these conflicts. They have also encouraged the youth who are unaware of the issues at stake.



Background

This project is build on the success of the Gilgil wetlands rehabilitation project started in 2009 by Marula Estates Ltd. Rehabilitating the wetland will allow silt washed down from the catchment to be deposited on land instead of reaching the main lake, reducing the rate of eutrophication.

The Lake sub catchment presents an ideal situation where community-based management of the natural resources can be implemented. Lake Naivasha freshwater resources are already used for water supply, irrigation, industry, fishery, and tourism. The horticultural industry employs more than 50,000 people directly and many others indirectly and also earns billions of Shillings in foreign exchange and taxes.

Nearly 15% of Kenya's total electrical energy demand is supplied from Ol Karia geothermal power plants. Such rapid population and economic growth and consequent intensified demand on the already stretched resources can only be sustained within an integrated planning and management process.

Management.

A river basin whose ecosystems of water, soils and vegetation provide sustainable services to people and to industry, including buffering against

climate change, in a society where stakeholders appreciate and cherish these services. All horticulturalists within the basin are leading this move, not only transparently minimising their own water consumption, but setting clear examples of wise use and effective catchment management, and helping to raise the capacity of stakeholders - both horticulturalists and non-horticulturalists - around them".

There are processes that are included in the project to make the rehabilitation a success not only in Naivasha but also with its environs for the benefit of the economy and uplifting the local citizens living standards.

To make lake Naivasha active and productive the project will regenerate papyrus which will provide essential breeding grounds for fish as well as habitat for bird and mammal species, increasing biodiversity.

The growth of papyrus will remove nitrates, phosphates and pollutants from Malewa which otherwise contribute to the degradation of Lake Naivasha - for example through promoting the growth of potentially-toxic algal blooms.

Whilst the resources of Lake Naivasha and its surrounding area should be

put to multipurpose use, care must be taken by applying the wise use principle and compliance to ensure that the resource base is not damaged.

The project has harmonised Conflicting goals of various users within an integrated Management Plan so that socio-economic development does not exceed the sustainable capacity and resilience of the natural resources. Such a Management Plan is been implemented through a representative body comprising stakeholders from the local communities, the private sector, non-governmental organizations and government agencies.

To enhance the project success partners have united their strength for this project fulfilment, it's by this that Lanawrua sought the agreement of Morendat and Marula farms to participate in the project by providing consent, access and support as necessary through the signing of a Memorandum of Understanding (MoU) between the 3 parties.

The project is set to rehabilitate approximately 200 hectares of wetland close to the lake edge. phase one will see the installation of gabions at two different locations within the channel of Malewa River in order to create overspill. These gabions will raise the height of the water in the channel so that it floods the surrounding land, as would happen naturally during the rainy season.

Once the gabions have been installed, water spilling out of the Malewa River will flow down a gradient towards the lake, rejuvenating dry clumps of papyrus. Therefore the vast majority of rehabilitated wetland will fall within the boundaries of Morendat; only a very small part of Marula Estate will be affected, at the lake edge. Upon successful completion of Phase 1 which is aimed to be completed in December 2012, phase 2 will kick off.



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Amiran Launches - Amiran Acre kit

Curtains came up on Amiran Kenya Limited's new technology, the Amiran Acre Kit on 9th August 2012 during the Agribusiness Expo 2012 held in Rift Valley Institute of Science and Technology (RVIST) in Nakuru. The Acre Kit officially launched by Naivasha MP, Honourable John Mututho, who chairs the Parliamentary select committee on Agriculture, Livestock and Cooperatives, provides farmers with a complete set of solutions that help them attain higher and better quality yields.



Amiran Acre Kit

This easy to use kit contains a first of its kind gravity-fed irrigation system serving up to 4,000 square meters (1 Acre), accessories such as filters and valves, a water tank, top quality grain seeds, fertilizers, agrochemicals, a knapsack sprayer, personal protective gear, installation and basic operational and agribusiness training. The kit that is fitted with the best components for farming is ideal for all regions with a big boost going towards farmers in Arid and Semi-arid areas where water is not sufficient for agriculture.

The 1 acre irrigation system which serves as the anchor for the Amiran Acre Kit will greatly contribute to water conservation among small scale and medium scale farmers, since the drip irrigation method has been proven to be the most environmentally friendly, water conservative method of irrigation using only 30 percent of the amount of water used in existing methods of irrigation.

Improved livelihoods

According to Yariv Kedar, Amiran's Deputy Managing director and among the experts who invented the kit, the new technology is

expected to improve on the situation and raise the level of grain and pulses output production including orphaned crops and cash crops such as cotton, pyrethrum, ground nuts, sweet potatoes, irish potatoes, sunflower and more. Most farmers who are rain dependent and only produce once and rarely twice in a year, can now triple their yield by producing 3 times annually.

Speaking during the tour around the crop demonstration site at the agribusiness expo where Amiran had put up an Acre Kit, Honourable Mututho championed the kit terming it as 'a technology applied for the benefit of food security' while at the same time encouraging farmers to embrace modern technology that is not subject to weather patterns.

Honourable Mututho urged all to hold agriculture in high esteem, stating that anything that affects agriculture will affect the country directly.

Israel-Amiran Partnership Promises To Increase Development In The African Region

"Amiran and Israel are two hands of the same body that can bring about a massive agricultural revolution around the world if there tremendous partnership gains more ground especially focusing on the developing countries like Somalia, Ethiopia and the newest country, Southern Sudan". These were the words of Israel's Deputy Foreign Minister Honourable Danny Ayalon who together with H. E Gil Haskel, Israel Ambassador to Kenya, Daniel Carmon, Israel's Agency for International Development Cooperation (MASHAV) and a delegation from Israeli Ministry of Foreign Affairs, visited the Amiran House in Nairobi's Embakasi area.

The visit gave Hon. Ayalon and his delegation a behind the scenes look into the day to day operations of the agricultural firm which owes most of its success and achievement to strong bonds with world class agricultural companies, mainly based in Israel. Amiran through these partnerships has been able to provide quality inputs that have greatly boosted agriculture in the country by providing complete solutions for the best harvest.

Yariv Kedar Amiran's Deputy Managing Director and inventor of the Amiran Farmers Kit (AFK) explained to the minister that Amiran

prides itself with the training that comes as one of the components after buying Amiran products such as the AFK and newly launched Amiran Acre Kit.

Kedar added that Amiran has also embarked on a mission to research on how to continually improve its range of products while also being solution providers to modern day diseases that affect crops such as bacterial wilt. The company has done this by carrying out trials on more solutions at its demonstration plot at Amiran headquarters.

In a round table meeting representatives from the state of Israel and Amiran agreed to invest greatly in the developing countries Ethiopia, Somalia and Southern Sudan in addition to ongoing activities in Kenya. Ayalon stated that Southern Sudan will especially need the most help citing that though being an infant country it has the greatest potential for development. Daniel Carmon who heads the Israeli Centre for International Cooperation (MASHAV) noted that there is much need for partnership between Israel's international developments arm which is well established throughout Africa, and Amiran

How Employee's PAYE Service Serves Their Interest

Employment income is covered under Section 5 of Kenya Income Tax Act (ITA), it is taxable in the year in respect of which it is received or accrued and all tax year for individuals runs from 1st January to 31st December. The chargeable income is for resident and non-resident.

"Employer" includes any resident person responsible for payment of, or on account of, emoluments to an employee.

Source of income is determined by the residential status of the employee and where he was recruited from, there is resident income which accrued permanent home and is for average residents, and there is also a worldwide employment income and nonresident income.

There are however basis of recognizing employment income which are gains or profits from employment including; Wages, salaries, overtime and leave pay, Sick pay, commissions and fees; and Bonus, gratuity or subsistence, travelling, entertainment or other allowance or any other allowance received in the course of employment. In the same account there maybe amounts above which are charged on an "earnings" basis and not "receipts" basis.



Compensation is typically money, awarded to someone as a recompense for loss, injury or suffering, employment compensation can take either cash emoluments or non-cash benefits. Taxable cash emoluments are per diems, net agreed which are tax free emoluments and compensation on termination.

There are non cash benefits, which are the value of all benefits; advantages of facilities of whatsoever nature are taxable on employee. Non-cash benefits that in aggregate do not exceed Kshs 36,000 per annum are not taxable and The Commissioner's prescribed rates – (where cost/market value are unascertainable). There are also other benefits included for agricultural employees, free housing and car benefit.

There are several tax free employment benefits that an employee can enjoy in the employment set-up, home travel expenses provided by an employer to expatriates – leave passages. Employer contributions to registered pension/provident funds or schemes – Kshs 240,000

p.a limit and educational fees paid for an employee's dependants taxed on employer.

There is also Medical benefits for directors (and their beneficiaries) owning over 5% shareholding subject to a limit of Kshs 1 Million, non-cash benefits whose cumulative value does not exceed Kshs 3,000 per month and employer's canteen meals to 'low income earning' employees.

There are deductions that are allowed from income which include: Pension, provident and individual retirement schemes, mortgage interest deduction, deposits into a HOSP and insurance relief.

In Pay as You Earn operating mechanism, the employer calculates and deducts tax from employees' monthly emoluments then employer records pay and tax particulars on each employee's tax deduction form (P.9 forms) thereafter the tax deducted is remitted to KRA on or before the 9th of the month following that in which the deduction has been made however where no tax has been deducted, an employer should provide a nil PAYE credit pay-in-slip. There may some Non-compliance issues that may arise due to; failure to deduct PAYE where applicable (on salary, allowances, benefits, etc),

failure to submit returns or Nil returns, failure to remit PAYE, failure to produce required records or failure to use the appropriate rates and methods for taxing benefits.

whenever compliance issues occurs there maybe some common problems evolving in the PAYE service such as lack of taxpayer/agent education, technicality of PAYE, lack of clear definition of certain provisions, or there are no legislation to cover emerging issues.

There are causes that can exhibit cost of non compliance which is outlined In Section 37 (2) of the Income Tax Act stating if an employer fails to deduct tax upon payment of emoluments to an employee; to account for tax deducted or to supply the Commissioner with a certificate prescribed under PAYE Rules. Penalty is 25% of amount of tax involved or KShs 10,000.

There are also other costs of non-compliance such as; interest on Unpaid Tax – Section 94 (1) A late payment interest of 2% per month or part thereof or failure to include employee PIN on any form submitted to KRA – KShs 2,000 per omission and Section 72D of the Income Tax Act - penalty of 20% on tax remaining unpaid after due date.

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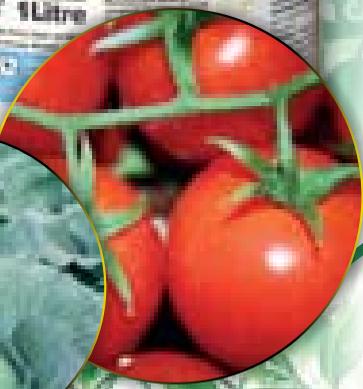
Crops

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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		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 Kakaseheb	0722-205271	jagtap.kt@bigotflowes.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
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	
Celinico Flowers	Limuru	Roses,Summer flowers	Mr. Chris Shaw	066-72170	celinico@nbinet.co.ke
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@colourcrops.com
Colour Crops	Timau	Summer flowers	Mr. Simon Baker		simon@siluba.co.ke
Colour Crops.	Naivasha	Veronica,fillers	Mr. Geoffrey Mwaura	0724-083111	nva@colourcrops.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 Mbutia		robert.mbutia@everest.co.ke
Everes Enterprises - Njumbi	Naromoru	Vegetables	Mr. Robert Mbutia		robert.mbutia@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@dmbgroup.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	Naivasha	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	Vegetables	Mr. Kahiga		dwagacha@qfp.co.ke
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		
Indu Farm	Naivasha	French beans	Mr. James		

FLOWER FARMS IN KENYA

FARM NAME	LOCATION	PRODUCT	CONTACT PERSON	TELEPHONE	E-MAIL
Interplant roses	Naivasha	Breeders	Mr. Geoffrey 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 Ekartd	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	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	lamonaaccounts@africaonline.co.ke
Lathyflora	Limuru	Beddings			
Lauren international	Thika	Roses	Mr. Chris Ogutu	0722-783598	laurenflowers@access.co.ke
Lex + Blomming oasis	Naivasha	Roses	Mr. Thomas Nyaribo	050-20-20612	lex@lex-ea.com
Live Wire Limited	Naivasha	Hypericum,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@maganafloowers.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				
Molly flowers	Limuru	Summer flowers	Elizabeth		
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	Mr. Jesse Waweru		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@ninitld.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. Peter osiro	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	pidaveflowers@wananchi.com
PJ Dave Flowers	Isinya	Roses	Mr. Hitesh Dave	045-21381/2	pidaveflowers@wananchi.com
PJ Dave	Timau	Roses	Mr. Israel	0712-184433	pidavetimau@pidaveepz.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	Kerinet	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@primarosafloowers.com
Primarosa Flowers Ltd	Athi River	Roses	Mr. Dilip Barge	0733 -618 354	dilip@primarosafloowers.com
Protea Farm	Timau	Roses	Mr. Philip		info@lobelia.co.ke
Ravine Roses	Eldamaravine	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	aidric@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 Ltd -Salgaa	Nakuru	Roses	Mr. Annan	074-848560	gm.roseto@megaspingroup.com
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@linsensenroses.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 Ltd	Subukia	Roses	Mr. Naren/Ravi	0736-347777	production@subatiflowers.com
Subati (former olij)	Naivasha	Roses	Mr. Patel	054-30917	production@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
Timafior Ltd	Timau	Roses	Mr. Bryan Allen	062-41263	brian.allen@timafiorltd.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. Virash 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.lmpex@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	ethiopicutting@ethionet.et
Ethiopian magical farm		Roses	+251 11 662 2570	emf@ethionet.et
Ethioplast plc	Felix Steeghs/ Kontos		+251 11 387 1277	accounts@ethioplants.com
Experience inc. Plc	Telahun 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 Bhausaeheb K.	Roses	+251 11 618 4341	holroses@ethionet.et
llan 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	lathmeadows@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		Roses	+251 11 466 9273	dgad@ethionet.et
Meskel flowers	Roy/Daniel			
Minaye flowers plc.	Francis Muriuki	Roses	+251 11 372 8666 /7/9	minaye@ethionet.et
Mullo farm plc	Eyob Kebebe/MauriceOjow	Roses	+251 11 554 0368	mullo@ethionet.et
Noa flora plc			+251 11 618 6203	noaflora@gmail.com
Oda flower plc	Mr.David Klein	Roses		odaflowers@ethionet.et
Omega farms plc	Lemlem Sisay		+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	Eryngiums, 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 agrofam 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
Soparasy (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	Roses		kajo@ethionet.
Top flower plc	Tadesse Bekele			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

Flowers And Occasions

There are so many occasions that define our lives. Some happy, some sad, however there is no such occasion where Flowers don't fit in. Most of the times one doesn't know what exactly to give someone and wonder which gift will be an appropriate one. That is where flowers step in.

Flowers can bring an instant smile on anyone's face, but having the right flowers for the right occasion can be even better. Here is a comprehensive list of flowers and Flower Arrangements as per occasions, to help you do exactly that:

BIRTHDAYS: The best idea for Birthday flowers is anything colorful. The flowers can be of your choice, but make sure look beautiful and are colorful. Birthday being a happy occasion brings various shades of colors. For instance, if you are sure you want to be give roses, make it a vivid bunch!

ANNIVERSARIES: Anniversary is a very special occasion, Special occasions deserve something unique so pick the seasons best flowers and combine them with a fresh fruit basket; it works wonders and adds a touch of class. Another idea would be to pick flowers according to the personality of the couple. For instance, if they are simple and sweet, go with lilies.

If they are colorful and happy, go with a mixed bouquet of gerberas and carnations & if they are a couple who are in love and are lovable then a bouquet of Orchids is the way to go.

CHRISTMAS: As per beliefs, a lot of different flowers are used for Christmas, each symbolizing a different aspect. Holly is the symbol of luck and masculinity, and wards off evil. Mistletoe is also an important flower for Christmas; it is a symbol of peace and is also used as a meeting point for lovers to kiss under in Western cultures. The Ivy flower is associated with the resurrection of Jesus. So its your choice based on your belief.

FRIENDSHIP DAY: Norm says that Yellow & Pink roses are gifted on this day to friends, as they symbolize deep-rooted, eternal and loyal friendship.

HOUSE-WARMING: As the name of the occasion goes, choose something that exudes warmth and love, and is useful too. Choose long-lasting flowers like Lilies, Orchids or Anthuriums and gift them in a vase or a glass bowl filled with a good number of greens. Its a very good gift, and also helps in keeping the air fresh.

GRADUATION: A very important stage in life, the flowers for this occasion need to be just right. A mixed bouquet of different colored lilies adds just the right touch of joy and solemnity.

THANKS GIVING: The most popular flowers for gifting on this religious and cultural day are Chrysanthemums, Gerbera, Daisies, Alstroemeria and Marigolds

GET WELL: Giving flowers to someone who is unwell is one of the best gestures anyone can make. Make sure they are in accordance with the nature of the person, and that they are beautiful and fresh so as to cheer him/her up. You can gift Lilies, sunflowers, Orchids, roses and much more which will certainly lift his/her spirits.

FUNERAL: A sad occasion which required flowers that convey your condolences. White flowers always convey your heartfelt sympathy well. Alternatively, you can also use flowers with light pastel shades, attached with a silver or white ribbon or other decorations but don't overdo it.

EASTER: Since this is a happy occasion that falls during spring, any bright seasonal flowers will do! Spring gives you a beautiful collection of garden fresh flowers. If you still want a concise list, pick from Tulips, Iris or Daffodils. These are the flowers which are at their best as it is spring time.

FATHERS DAY: Tropical flowers like Alpine Aster, African Tulip, Amazon Lily or Begonia are the perfect flowers to gift your father to tell him how much you love him and appreciate his presence in your life.

MOTHERS DAY: Carnations, lily of the valley and narcissi are the most Gifted flowers world over for this occasion. Apart from that what makes the best bouquet is what you feel she will like, after all who knows your mother better than you do.

VALENTINES DAY: Red is the color of the day! But women will also appreciate being gifted other soft, feminine colors such as lavender, lilac, pink and peach. If you think Roses are too striking, here are some other solutions - tulips, daffodils, iris, crocuses, hyacinths or buttercups.

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