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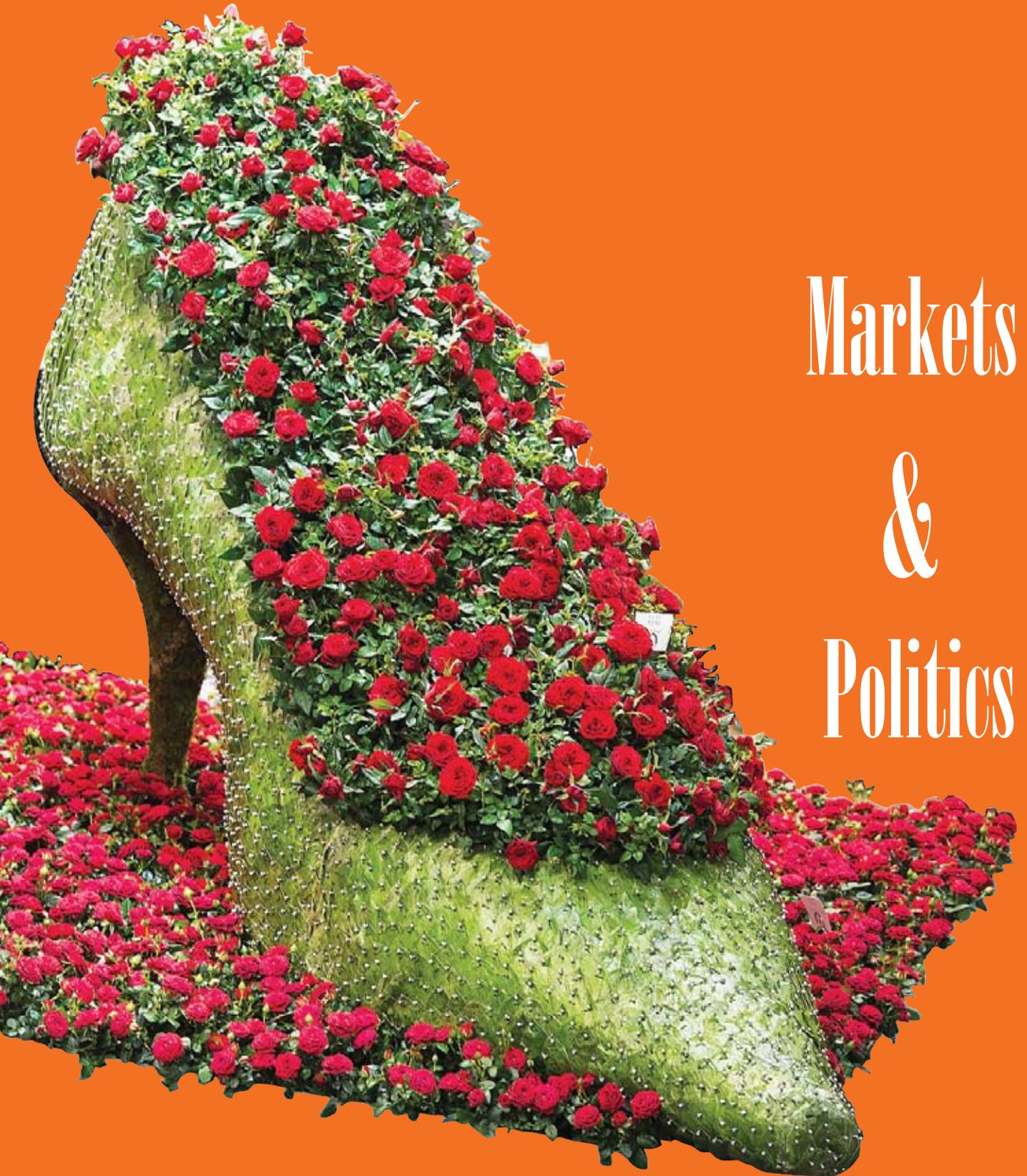
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The Leading Floriculture Magazine

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Walk with us this 2017

Thank you, all. Thank you for agreeing to be part of the Floriculture Magazine, and thank your loyalty. And so we're especially grateful for that. It's a pleasure to welcome everyone to this new Floriculture magazine year. Each January I find myself transported back to that sense of fresh beginnings and infinite possibility that I experienced from my very first days of school as a small child. In our new digital world, it may no longer be about the alluringly blank page of a new notebook, but each fall we continue to find ourselves considering what it means, in the words of Seamus Heaney, to "begin again."

This January, we have the privilege of greeting new readers across the globe who have subscribed from South Africa, Europe, Dubai and India drawn to Floriculture by its myriad progress, its outstanding network, and its reputation across the region. Thanks to Flowerweb and IPM Essen through whom some have subscribed.

And to our existing readers, we add a new approach as well as new editorial policy. Our editorial team will push the frontiers of knowledge, deepening humanity's understanding of flower markets, and marketing; peering into the impact of the ongoing global changes, and unravelling the mysteries of human experience.

We welcome new columnists as well: new correspondents, whose widely acclaimed knowledge of flower markets is matched by their deep commitment to expanding marketing opportunities for all growers. And we welcome a new editorial board member whose experience in growing will shape the future of the Magazine's



greatest treasures.

New understandings of market behaviour and consumer brain, along with advances in technology, have opened the door to remarkable new possibilities for networking, both face to face and online. How can we best use our pages in floriculture? How can we connect growers and consumers beyond their current status to enhance what happens inside the farms and markets? Walk with us this 2017.

Masila Kanyingi
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Celebration of the life of the pioneer of Kenya flowers Hans Zwager

Family, staff, friends and relatives gathered at the Oserian Stadium in Naivasha on December 20, 2016 to celebrate the life of the pioneer of the Kenya flower industry Johannes Ewaldus Maria Zwager popularly known as Hans Zwager who has passed on at the age of 90. Hans Zwager founded leading flower export farm, Oserian Development Company in the early 80s marking the beginning of a business which would drive an industry to grow into one of the top export earners for Kenya – a key employer and driver of a major social-economic transformation in the region. An estimated two million people depend on the flower industry today through direct and indirect employment at both the farm and across the value chain.

To celebrate the legacy left behind by Hans Zwager, an afternoon and evening of entertainment was organized by the Oserian family to give their hero a befitting send off, said Kirihi Mpingu, the firm's director of administration.

Speaking at the event, a former worker and sitting Narok East MP, Lemaken Aramat, said Oserian gave him the foundation he needed to be a lawmaker. The legislator served as the farm's Maasai Community Liaison Officer, a position that enabled him to create useful grassroots connection with people who voted him to Parliament in 2013.

Peter Zwager, Chairman and son of the late Hans Zwager said his father sowed the seeds of the flower industry from bare lands near Lake Naivasha to grow the beautiful flowers we are proud of today.

The workers' children were entertained in the morning with bouncing castles and children's comedy to usher in an afternoon of songs by choirs and bands which culminated in the final salute to Mzee with a magnificent display of fireworks – this was a fitting celebration by the Oserian community of the life of a man whose vision has truly touched the lives of hundreds of thousands Kenyans and probably millions of others around the

globe.

Hans was born in the Netherlands in 1926 but arrived in Kenya to start up ABN bank in Nairobi in the early 1950s. Here he met June Patricia Ashworth and after a short whirlwind romance, they married.

Hans and June started their own business of importing agricultural spare parts and chemicals for agricultural crops. Hans recognized that newly independent Kenya had a huge agricultural potential and would need support services, so he set up Kleenway Chemicals in Nairobi and Antipest Ltd in Mombasa in the 1960s.

Hans purchased Oserian Farm in 1969, which was a cattle ranch with 16 employees. Using his enterprise and his appetite for risk, Hans established a new concept – flowers for export. Later his pioneering work led him to develop Geothermal Energy at Oserian, which now provides electric power to the entire farm and uses geothermal heat to control diseases in the rose houses, which has greatly reduced the need for chemical fungicides.

In 1978 he built a factory that produced the first locally manufactured knapsack sprayers in Kenya. The Dutch designed Hobra Sprayers were enthusiastically welcomed by small-scale farmers as spare parts and repairs were now always locally available.

Hans was one of the leading entrepreneurial pioneers in Kenyan horticulture and Oserian soon became the model for flower export to the Dutch and EU markets. Hans started up the TFA (Tele Flower Auction) in the Netherlands, the first electronic flower auction in the world, designed to promote and support the Kenyan flower exporters. He also saw the opportunity to trade flowers directly to the UK supermarkets and established World Flowers in 1989, allowing Kenyan farmers to trade directly with the European High Street superstores.

As Oserian expanded and thrived, he



Late Johannes Ewaldus Maria Zwager

encouraged the development of a social complex, which included housing for 6000 employees and their families. Today Oserian is one of the most socially conscious businesses in the Country with crèches, primary and secondary schools and health care for thousands of children and adults.

Hans was committed not only to business but had long sought for a sustainable harmony between agriculture and the environment. In 1995 he created a 18,000 acre sanctuary to protect the local wildlife and ecosystem. Today, Oserian Farm and its green houses are surrounded by wildlife, which Hans saw as a fitting tribute to the beauty of Kenya.

His zeal and dedication to the Kenya horticulture industry would not go unnoticed. In 1998, the former President of Kenya, the Honourable Daniel Arap Moi, presented Hans Zwager Kenya's Medal of Honour, the 'Moran of the Burning Spear' in recognition for his role in directly developing what had by then become a corner stone of the Kenyan economy.

Hans was also presented with The Order of Orange-Nassau by His Royal Highness King William Alexander of the Netherlands for his services to society. The medal, a Military and Civil Order of Chivalry, was founded in 1892 by the Queen Regent Emma of Netherlands. Then Ambassador for the Netherlands, Mr Joost Reintjes presented the medal at a prestigious ceremony hosted at the Royal Netherlands Residency in Nairobi.

Red Lands Roses' Solar Energy Project

Red Lands Roses' solar energy project is up and running. Since mid-September, French developer Urbasolar had been busy constructing the system. It was completed in early October, and on December 16, it was officially launched.

According to Urbasolar's Vice President International and New Markets, Paul Keurinck, there are three kind of solar systems allowed in Kenya for three years now; the off-grid solar power systems (particularly for home use or small scale), the feed-in tariff system (people who generate their own green or renewable energy will be paid for doing so) and the self consumption system. And at Redlands Roses, this self consumption system has been implemented.

"With this system, the exact amount of electricity needed is being produced. So, the farm produces the electricity and consume it directly. Important is that the size of the project adapts to the size and the daily load care of the farm, so nothing will be wasted", he explains.

"It is all about finding the right location", says Keurinck. At the farm at Redlands, the panels are placed in between the greenhouses. Half of the panels are placed on the ground and half are placed on parking spots. The panels on the ground are faced west and the panels on the parking spots are faced east. Both are lined North-South. "In this way, they get the most out of the sun", he says. According to Keurinck, it is also possible to use a tracker system —panels that move along with the sun— but at Red Lands, as they have the space on the right location, using fixed panels facing east and west seemed to be the best option. "The panels will have a yearly production of 369.7 MWh, Global Horizontal Irradiation 2094 kWh/m², and will generate 218.4 KWp."

The panels are connected to a power system, which is also located on the farm. The brain of this electricity system is an automated device designed inhouse by Urbasolar. This



automated regulation system has three inputs; the energy from the solar panels, Kenya Power (KPLC) and the Genset. The output is the consumption of energy. The device will manage the amount of energy of all the inputs.

The energy of the solar panels will always have priority, then the Kenya Power and finally the Genset. In this way, there is always a good production of energy and it is cheaper. "We can produce energy at 8 euro cents per kilowatt hour and Kenya Power at 14 euro cents (15.34 shilling), which is about 43% more expensive. Moreover, this price of Kenya Power is not always stable and we expect it to

increase in the future. Therefore, it is important to find a solution. And solar projects are one of the solutions", he says.

Installing a solar project is a large investment, but it will pay back in the end. "Our project will payback itself in 5 to 7 years. A grower can keep the plant working for more than 30 years, so after 5 years, the solar panels will deliver free electricity. And the grower will save about 30% on the KPLC bill and consequently also saves on the genset consumption. The consumption of fuel will decrease too, about 70%, which makes more efficient than a fuel project."

Counties faulted on land leases, high business levies

The Agriculture Employer Association (AEA) has faulted county governments on land leases and high costs of doing business.

Speaking during the organization's annual general meeting, the AEA chairman Abdi Sora said some of the governors had fuelled uncertainty in some of the plantations through their utterances. He said while it was clear the leases were reduced from 999 to 99 years, the devolved governments should protect the sanctity of a title deed.

The AEA chairman also lamented about the high cost of doing business in counties,

saying labour costs remained one of the highest in the region. He decried numerous levies charged by the two levels of government as well as the cost of electricity as some of the challenges the vibrant sector was facing.

Mr Sora however, said Kenya remained the lead exporter of rose cut flowers to the European market, with a market share of 38 per cent. "Approximately 50 per cent of exported flowers are sold through the Dutch Auctions, although direct sales are growing," he said. He said over 25 per cent of exported flowers were delivered directly, with the Kenyan flowers being sold in more than 60 other countries.



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5. Spray and ensure full coverage.
6. The product should always be used with a compatible wetter/sticker (not a buffer).

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

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Market Description of the Flower Markets

Horticultural Trade Follows the Overall Political Situation

Horticulture is showing that it is largely stable and optimistic in spite of the many economic and political uncertainties on the markets. Notwithstanding Brexit, the embargo on Russia and terrorism, the flower and plant worlds are continuing to revolve even if not always in the traditional orbits.

The characteristics of the last few years in the global trade continue to exist.

The worldwide demand for flowers and plants is concentrated in the European countries, China, Japan and the USA.

The Netherlands remain the undisputed number one as the hub for the trade inside the EU. They are responsible for almost 70 % of the export activities of flowers and plants inside the EU. As indicated by the latest figures from EUROSTAT, the trend towards rising imports of flowers and plants into the EU is persisting as far as both the quantity and the value are concerned

In 2015, a total of 504,952 tonnes (+ 8.2 %) worth Euro 1.68 billion (+ 5.3 %) was imported by the EU. As in the previous years, the cut flowers which account for 78 % of the total imports into the EU are mainly responsible for the rise in the imports. At 5.3 %, their growth in terms of value exactly corresponds to the total growth. The increases in the imports may be attributed almost exclusively to the cut flowers; cut flowers are the sole driving forces behind the growth in the EU's foreign trade.

The fact that the import quantities are rising at higher percentages than the import values shows that the trend towards increasingly higher-value products in the last few years is no longer persisting. In contrast, the long-term development in the shift with regard to the countries of origin is continuing even further. With approx. 27 % of the imports, Kenya remains the undisputed number one amongst the EU's countries of origin, followed by Ethiopia, Ecuador and Colombia. As classic cut flower producers, these countries are responsible for the described increase in the

EU's imports. They are consolidating their market positions as exporters to the EU even further.

In contrast, export countries such as Israel, the USA and Costa Rica are displaying a declining trend.

The EU's Export Values are Rising - Its Export Quantities are Not

According to EUROSTAT, flowers and plants in a quantity of 664,000 tonnes and a value of Euro 1.98 billion were exported from the EU in 2015. In comparison with the previous year, that is a decline of 3.1 % as far as the quantity is concerned. The EU's exports which have exhibited an upward tendency for ten years are thus declining for the second time in succession since 2013. At the same time, it is possible to establish an increase of 5.1 % in the value which relates to all the ranges of flowers and plants. Falling export quantities with rising export values mean that increasingly higher-value products are being exported by the EU's member states.

Trade Surplus Continues to Exist

In spite of the EU's increased imports of cut flowers and thus the repeated extension of the negative balance of trade in the segments of the cut flowers and the cut foliage (in 2015: approx. - Euro 620 million / in 2014: approx. - Euro 500 million), the EU's balance of trade turns out to be positive. The overall consideration shows a trade surplus amounting to approx. Euro 300 million in the case of flowers and plants. The trade surplus has now been detectable since 2002 and may primarily be attributed to the exports of flower bulbs and tubers from the EU.

Target Markets of the EU's Exports Only with Slight Alterations

At first glance, the target markets of the EU's exports turn out to be similar to those in the





past. Russia and Switzerland remain the countries with by far the strongest demand for European flowers and ornamental plants. In 2015, the EU exported, in each case, 20.5 % of the export value to Russia (compared with 21.3 % in 2014) and to Switzerland (compared with 20.7 % in 2014), followed by the export markets of the USA (11.2 %), Norway (8.2 %) and China (5.9 %). At second glance, it is conspicuous that the declines in the exports to Russia are being compensated for by the growth of the other target markets. This means that the EU's member states are extending their core export markets even further. At present, the individual exporting countries in the EU are making correspondingly intensive efforts to gain footholds in countries which they have neglected in the past. For example, countries such as Turkey, Ukraine, the United Arab Emirates or also Japan are being courted to an increasing extent. Federal Minister of Agriculture.

Schmidt recently stressed that Germany's close partnership with Turkey in the agricultural

field would be continued while Dutch firms at Flower Expo Ukraine 2016 affirmed that they wanted to strengthen their cooperation with Ukraine. With the exception of Ukraine, it is possible to establish slight rises of up to 1 % with regard to all the target markets of the EU's exports. The ranking of the different target

markets in relation to the sales value thus remains constant.

Two Discussion Subjects are Dominating 2016

The EU's rising imports and exports of flowers and plants are an indication of stable to





Britain PM, Theresa May

increasing trade in the sector. Precisely the export values not only of the Dutch but also in Germany are exhibiting record values and might ensure an optimistic outlook in the sector. For example, the positive development of the Dutch exports is persisting in the autumn of 2016, too, after 2015 had already yielded a record export value of Euro 5.6 billion in total. Nevertheless, uncertainty is spreading around the European market in 2016. “Brexit” and “Russia” are the central subjects in this respect.

Brexit - All Quiet on the Western Front!?

With Great Britain’s decision to withdraw from the European Union in the summer of 2016, it is possible to establish a degree of uncertainty in both the European and worldwide trade in flowers and plants. Until 2016, Great Britain imported flowers and plants from suppliers and traders in the EU’s member states for a market value of approx. Euro 1 billion per year. Already since 2011, Great Britain has thus constituted the second-largest import market for ornamental plants inside the EU. The Britons were and are one of the most important trading partners for suppliers and traders not only from the Netherlands but also from Germany, Italy, Denmark and Belgium. The trade relationship between Great Britain and the Netherlands is close: In 2015, the Dutch exported 17 % of their total exports of ornamental plants (approx. Euro 925 million)

to Great Britain. That corresponds to 80 % of all the cut flowers and 70 % of all the plants imported by the Britons.

Great Britain also accounts for a large proportion of the general rise in demand for flowers and plants in the EU. Great Britain exerted an extremely positive influence on that slight increase in the turnover resulting from sales of flowers and plants in the EU which was registered in 2015, i.e. by 0.5 % in total to Euro 32.4 billion. The trading partners, particularly from the Netherlands, are correspondingly nervous about the as yet unforeseeable effects of Brexit.

This nervousness is existing justifiably although the purchasing behaviour of the Britons has not yet altered according to surveys conducted by the Dutch auctioneers Royal FloraHolland. After a short-term decline in the sales quantities by approx. 5 % directly after the referendum in June 2016, the sales are currently turning out to be exactly the same as in the previous year with regard to the plant types and quantities.

One interesting fact is that the British traders are keeping the consumer prices of flowers and plants on the same level as in the previous year in spite of the devaluation of the British

pound (more expensive purchasing). At present, the selling prices are thus being “subsidised” or compensated for at the expense of the British flower traders’ own profit margins. Therefore, the problem has been borne by the British traders until now - for how much longer?

Although this sales behaviour is preventing declines in turnover and is leading to constant sales figures, it will put the Britons off trading in flowers and plants in the long term. At the latest when additional customs duties are imposed and the lead times are delayed, the goods imported from the EU until now will become increasingly unattractive to the British traders. Many of them will look for solutions. In this respect, three scenarios are conceivable:

1) Passing the more expensive purchasing prices on to the ultimate consumer: The traders increase the final selling prices of flowers and plants corresponding to the exchange rate losses with the dangers that the Britons will generate a lower demand for the products and the demanded quantities will decline. In the long term, precisely the customers of the specialised retail trade will be unable to avoid increases in the selling prices if they still want to afford the “expensive” goods imported from the EU.

2) Extending the trade relationships to and direct imports from suppliers in third-country states: Trading companies which, as individual companies or as purchasing cooperatives, are





large enough to be able to buy their goods directly in the production countries in Africa and Central America will set up corresponding trade relationships, will divert their flows of goods as direct imports and will no longer take the route via the Netherlands. In the case of this scenario, it will be interesting what customs duties will be applied later on and what effects these will exert on the direct imports.

3) Extending the domestic production:

The British producers could extend their production. Because of the energy and cost situations, a domestic extension is rather unrealistic but conceivable on a small scale.

Thus, it must be feared that the trade in flowers and plants inside the EU will inevitably come under pressure in the long run because of Brexit. In expert circles, it is being assumed that the major effects of Brexit will only become discernible in two years.

Precisely the central purchasing departments of the supermarkets such as Tesco, Asda, Aldi, Lidl and co. which already have market shares of over 54 % for cut flowers and 32 % for house plants in Great Britain at present will look for purchasing alternatives and service

providers outside the EU and contribute to an alteration in the flows of goods. The trend towards direct imports of the system trade can already be observed throughout Europe and will be accelerated once more in Great Britain due to Brexit.

In this respect, the British purchasers will certainly focus on countries such as Kenya, Colombia, South Africa, Turkey, Israel and Morocco even more strongly than until now.

New Sales Markets in the Field of Vision

It is a fact that particularly the Dutch flower wholesalers have intensively been on the lookout for new sales markets since Brexit. In this respect, their thoughts are heading in all directions, both inside and outside the EU (e.g. the USA or China). According to Royal FloraHolland, precisely China is “mad about flowers made in Holland” and, in spite of an economically tense situation, remains a very interesting growth market for the exports of flowers and plants. Experts estimate that the per-capita consumption of the Chinese will alter considerably because of the transformation of the society in China (15 million Chinese are rising out of poverty into the middle class), similar to the growth markets in Mexico, Brazil or Argentina. If

that were the case, experts estimate that the market potential for flowers and plants on the consumer level in China would treble from Euro 5.5 billion at present to Euro 16.5 billion.

Against this background, Royal FloraHolland's export targets of wanting to raise its export value from Euro 10 million at present to Euro 200 million in 2020 might be realistic. It remains to be seen to what extent other EU states will be allowed to and will participate in the upswing and in a “Made in the EU” designation.

Russia - and Its Embargo

How important it is to find new, reliable sales regions for flowers and plants is also shown by a look at Russia as a market partner. Because of the embargo on agricultural imports for the states oriented to the west (the EU's member countries, the USA, Canada, Australia and Norway), Russia is continuing to lose its significance as the most important target market for the EU's exports.

As an answer to the EU's sanctions against Russia, the Russian market will continue to remain closed to a large proportion of the European agricultural products and food until the end of 2017, too, for the “protection of the

national interests of the Russian Federation". This state of affairs will be exacerbated by the political situation in Syria. The Netherlands, the undisputed number one and the "hub" for the exports of flowers and plants inside and outside the EU, are once more illustrating how dramatic the decline is. For example, 44 % of the cut flowers sold in Russia in 2015 came from the Netherlands (Ecuador: 36 % / Colombia: 13 %).

The Netherlands' share of the exports to Russia has more than halved in the last three years. While Russia still occupied fourth place amongst the top-ten export countries of the Netherlands in 2014, Russia no longer appeared on this list at all in September 2016. Already in the spring of 2016, Russia's export share fell below the 3 % limit to approx. Euro 44.5 million (in comparison, Germany's export share: 30 %). At the same time, Poland exhibited an export growth of 13% to Euro 55 million for the Dutch. However, as can be seen on the markets for fruit and vegetables, the loopholes for goods from the EU to Russia are becoming smaller.

Persisting Alterations

While, at the beginning of the Russian crisis, many traders and experts were confident that the EU's export activities to Russia would be restricted in the short term only, ever more indicators are currently suggesting that the effects and alterations caused by the embargo on Russia will be more long-term.

According to experts, Russia is currently consolidating its trade relationships outside the EU and is extending its own production. It is difficult to imagine that these measures (once installed and implemented in a functioning way) will once again be replaced by the EU's exports at a later point in time. Thus, not only India and Vietnam but also Japan are currently showing great interest in Russia as the world's fifth-largest importer of flowers and plants. They are inspecting the market and are studying the needs of the Russian consumers and traders precisely.

For example, Vietnam has recently set up direct flights to ten Russian cities for cut flowers in order to position itself as an all-



year-round producer of fresh flowers and plants, primarily direct flights to the Moscow metropolis and its surroundings. According to experts, over 40 % of the cut flowers purchased in Russia meet the demand solely in the Moscow region and its surroundings. This concentration of the market is making its exploitation easier. Vietnam is thus establishing itself as a permanent fixture in Russia's international trade.

In addition to the setting-up of new sources of supply outside the EU, Russia is increasingly placing its faith in extending its degree of self-sufficiency. It is well-known that there are increasing investments in high-tech greenhouses in Russia (status in 2015: approx. 168 ha). Experts estimate that the Russian production of cut flowers has risen by at least two-and-a-half times in the last four years. Accordingly, approx. 15 % of the domestic market share is being served by cut flower production from Russian sources at present. An impressive growth rate which, however, also simultaneously shows that Russia still has high import needs.

These import needs are also continuing to exist and may increase even further in spite of the endeavours to increase the degree of self-sufficiency. Flowers have a very high status in Russia in the case of festivities and the Russians have recently discovered flowers for their own needs, too. Similar to the case

of China, the question also being asked here is when and how the EU will be allowed to participate in this trend. The sector is hoping that the Russian crisis should be overcome in ten years at the latest and unrestricted trade between Russia and the EU will take place once again. It is not advisable to rely upon that. In the past (even before the embargo), Russia has not always proven to be a reliable trading market.

Beneficial Outline Conditions in Germany

According to initial findings, the German markets for flowers and ornamental plants are turning out to be stable to positive in 2016 irrespective of any turbulences on the market (Brexit / persisting embargo on Russia). This fact is based on the positive consumer confidence and is thus associated with a good consumption mood.

Similar to 2015, a stable development on the labour market with increasing employment and rising real wages (+ 2.6 % in the first quarter / + 2.3 % in the second quarter of 2016) is ensuring distinct income optimism with an undiminished consumption appetite. In contrast with Great Britain, the consumption climate in Germany is proving to be absolutely resilient in spite of Brexit and terrorist attacks (note about Great Britain: in the autumn of 2016, 60 % of the Britons are uncertain about the future and will presumably reduce their personal expenditure on fashion, lifestyle,

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- **STARTER** 15:30:15+2MgO+TE, 15:31:15+TE, 11:40:11+2MgO+TE, 13:40:13+TE

- **UNIVERSAL** 18:18:18+3MgO+TE, 19:19:19+TE, 20:20:20+TE

- **FINISHER** 14:7:30+3MgO+TE, 15:7:30+3MgO+TE, 12:6:36+2.5MgO+TE



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home and living).

According to the forecast made by the Consumer Research Association (GfK), the private consumption expenditure (as an important pillar of the economic development in Germany) will rise by approx. 2 % in 2016. The traders are also noticing this stable consumption climate on a good level. For example, after the first half of 2016, the German Garden Industry Association (IVG) and the Trade Association for DIY, Construction and Gardens (BHB) are, in spite of the unfavourable seasonal weather conditions, reporting slight growth in the sector which, by the end of 2016, will reach at least the same level as in the previous year.

In its autumn forecast in 2016, the federal government is assuming stable growth of the German economy. Accordingly, the economic growth is stable at 1.8 %. Also in countries such as Poland, Portugal and Turkey, the consumption mood is good and there is a persisting trend towards a rising demand for flowers and plants. Another beneficial factor in Germany is that the outline conditions for horticulture will improve according to the future strategy in horticulture. At the end of October 2016, a resolution entitled "Strengthening Horticulture as well as Horticulture and Landscaping as Innovative Branches of the Economy and Making Them Fit for the Future" was unanimously passed in the Lower House of the German Parliament.

Mother's Day - The Measure of All Things

In 2016, too, most of the German wholesalers were satisfied with the Mother's Day business as one of the most important days for selling flowers and plants. Thus, the Association of the German Flower Wholesale and Import Trade (BGI) is reporting stable prices with a tendency to slightly increased sales quantities. Veiling Rhein-Maas is also reporting good sales with the second-highest total turnover in the last six years. One interesting observation made by market experts is that it was possible to trade, above all, high-value products at very good prices. That corresponds to the objective of German horticulture, i.e. higher value added due to higher appreciation.



Prices Good - Everything Good!

Accordingly, high-quality products are in the ascendant outside the Mother's Day business, too. However, the phenomenon of the higher prices is being reported only occasionally by just a few traders. Although the Federal Statistical Office has established rising consumer prices for garden products (cf. index in 2010 = 100, index in 2015 = 112.4) every year since 2010, the prices on the wholesale level are stagnating according to the statements made by wholesalers in BGI. In contrast, the prices of pot plants have risen by 53 cent per unit (plant or tray) on the ultimate consumer level within the last six years according to the Agricultural Market Information Company (AMI).

The situation looks different as far as the Dutch are concerned. The export increases

established in the Netherlands are caused almost exclusively by rising prices. Thus, the average prices of Royal FloraHolland rose month by month in 2016 and reached a price level which had never existed in the history of Royal FloraHolland. It is astonishing that the high price level relates to all the ranges of flowers and plants.

At the start of October 2016, the highest average price of all time, i.e. 37.7 cent, was achieved at the marketing organisation. The average price thus rose by 5.6 %. At the same time, the proportion of the deliveries declined by 1.5 % at the start of October. Slightly altered sales channels towards the retail trade which had led to more fixed price agreements are presumed to be causes of the high average prices. This setting-up of "more reliable value added chains" can also be observed in the German flower and plant trade but, according to experts in the sector, was not implemented consistently enough because suppliers and wholesalers in Germany are hardly profiting from the rising consumer prices.

Conspicuous Features in 2016

German wholesalers are establishing that the specialised retail trade is increasingly focusing on aspects such as quality and regional production when purchasing flowers and

One interesting fact is that the British traders are keeping the consumer prices of flowers and plants on the same level as in the previous year in spite of the devaluation of the British pound.

plants. This observation is also being made in France where the “Fleurs de France” label is becoming more significant in the trade and the sales.

In the summer of 2016, the Dutch (Royal FloraHolland) made an analysis of the causes of the decline in the exports of plants to Germany in 2015 (- 3.8 % = Euro 83 million in comparison with 2014). Not only an increasing degree of self-sufficiency in Germany but also, above all, the trend towards regional products are being made responsible for the decline.

Will there also be an increased regional trend in the case of ornamental plants, just like in the fruit and vegetable sectors? The attitudes to regional, ecological and fair are known from consumer typology (Altmann, Kaim and Fluck, 2012) for the German market for ornamental plants. Accordingly, the consumers in all age classes have one thing in common, i.e.

the wish for regionality is increasing but the purchases are not exclusively regional or German. In this respect, the knowledge that cut flowers in particular are coming from overseas seems to be decisive.

Instead, the purchasing decision is influenced by a large number of individual aspects. Thus, sustainable production (ecological/fair) is becoming ever more important in addition to the regional aspect. Here, it is interesting that the wish for a fair trade label is dividing the consumers. The advocates are 60 years' old and more; not so much the young people. This is presumably the founder generation of the green movement from the 70s/80s who have retained their attitudes.

The main decision characteristic is and remains the quality (product & process). To this extent, it must be stated that German consumers also like to resort to imported

goods if they feel addressed by the quality and the indicated values (respect for people and the environment).

“Sustainability” and “regionality” thus promote the sales but, with regard to the purchasing decisions of the German consumers, are always seen in connection with the quality.

In addition to the regional aspect, the wholesalers established another peculiarity in 2016. The retail food trade is becoming more professional and extending its range. Accordingly, the retail food trade is increasingly daring to take on flowers and plants which have classically been reserved for the specialised retail trade until now and, in search of market shares, is “poaching” in the range of the specialised retail trade: A finding which is forcing the specialised retail trade to act and must be observed precisely.

Another peculiarity or observation in the wholesale

trade is that, in the stagnating market of the pot plants, growth is occurring almost exclusively only via new and innovative products and concepts. Messe Essen's “hortivation” fair staged in this connection for the first time in 2016 is thus pursuing the correct approach in order to sensitise the sector to innovations.

Conclusion

The worldwide flows of goods are in a state of flux. We have a stable demand in the EU and growth potential outside the EU.

Also in Germany, the flower and plant markets are proving to be stable and will ensure demand with a high consumption mood of the consumers in 2017, too.

One pleasing aspect relates to the rising prices on the retail trade level which, however, are not reaching everybody in the value added chain.

In 2016, Brexit and Russia are two dominant subjects whose effects will only be shown in the long term. Nobody should rely upon everything turning out alright. All the countries will do well to set up alternative sales channels and target markets for themselves, even if it is by intensifying existing trade contacts inside or outside Europe. Due to these reorientation measures, it may be assumed that, in 2017, the flows of goods will alter in conjunction with changing consumption behaviour in a few EU countries.

In this respect, the increasing direct purchases from the major central trading organisations in the production countries will certainly be a driving force.

It will be shown whether the EU has passed through a small referendum with a big effect or a big referendum with a small effect. It remains exciting - from east to west!

Sources: Expert discussions as well as EUROSTAT, AMI, BGI, GfK, VBG, TASPO and Gabot.

Dr. Marianne Altmann: CO CONCEPT, on behalf of Messe Essen for IPM ESSEN 2017



Function of Limestone in Growing Media

Limestone is commonly used in the manufacturing of growing media. It is mostly added to offset the acidity of components such as peat moss and pine bark, and to bring a growing medium's pH up into the 5.5-6.5 range, which is ideal for most crops.

Greenhouse growers know that in order to achieve optimum nutrient availability for plant growth, the growing medium's pH for most crops should be in the 5.5-6.5 pH range. The standard base components in most soilless media, peat moss and composted pine bark, have a pH in the range of 3.5-5.0.

This is too low for most crops and requires the use of limestone to bring the growing medium's pH up into the ideal range. Many factors have an influence over the growing medium's pH. The quantity and choice of limestone used to increase the growing medium's pH is a function of several factors, including:

- the growing medium's components;
- the type of limestone;
- the particle size of the limestone used.

When the growing medium is in use, the alkalinity of the irrigation water as well as the specific crop grown will also affect the growing medium's pH; therefore, the pH must be monitored by the grower. A soilless media manufacturer only has control of the starting pH and some short-term pH stability based on the limestone source used. "Most growing media have limestone added to increase the pH of acidic components such as peat moss and bark. Source: Premier Tech Horticulture."

pH adjustment takes time

In general, growing media manufacturers add limestone at a rate which will provide a starting pH of 5.5-6.5. However, limestone

is a granular form and must dissolve in the growing medium before the pH is stabilized and a true measurement of the pH can be determined.

There is some initial pH increase immediately following limestone incorporation (called limestone reactivity), but the long-term residual effect must be considered when determining the type and application rate of limestone for optimum growing medium pH throughout a crop cycle.

Accurate pH measurement after 7-10 Days
It is not unusual for a fresh made growing medium to have a low pH of 4.5-4.9, because the limestone has not dissolved due to the low moisture content of the growing medium's components. Depending on the moisture content, freshly made growing media may take a week to two months for the pH to rise to the normal range and stabilize. Therefore, in-use growing medium pH measurements are most accurate 7-10 days after planting and initial watering-in of the crop. Although it takes time for limestone to react, there are other factors that determine how much limestone to add to a growing medium.

Particle size and hardness

The finer and softer the limestone particles are, the faster they will dissolve and impact the growing medium's pH. Conversely, the larger and harder the particles, the slower they will dissolve.

While there are general rules of thumb on the amount of limestone required to reach an optimum growing medium pH, growers mixing their own growing media will need to find a supplier of consistent high quality limestone, and through trial and error determine the ideal rates for their conditions and crop.

Type of limestone

The two most common forms of limestone incorporated into soilless media are calcitic and dolomitic limestone.

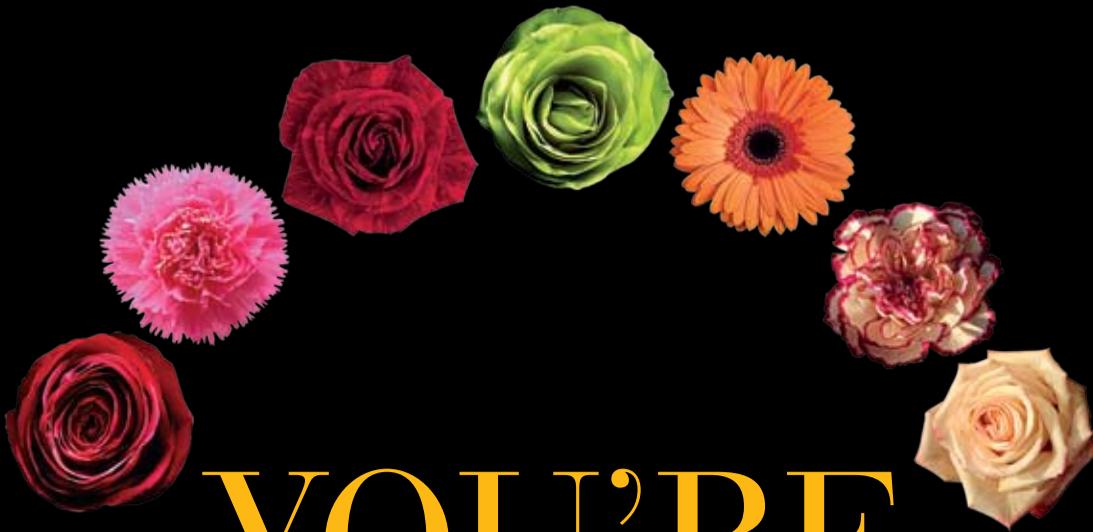
- Calcitic limestone is calcium carbonate and serves two purposes in the medium. First, it reacts fairly quickly to neutralize acids in the growing medium. Since it is a soft limestone, it has a short residual life. Second, calcitic limestone provides some calcium, but very little in the way of additional elements.
- Dolomitic limestone is a combination of calcium carbonate and magnesium carbonate. It also neutralizes acids in the growing medium, but in general is a harder limestone and dissolves slowly in the growing medium, resulting in longer term pH stability. Dolomitic limestone also provides some calcium and a little magnesium.

"Dolomitic limestone is commonly used in the manufacturing of growing media. Source: Premier Tech Horticulture."

A Combination of calcitic and dolomitic limestone

Most commercial soilless growing media manufacturers rely solely on dolomitic limestone and vary the particle size to control release rates. Premier Tech Horticulture, however, uses a combination of calcitic and dolomitic limestone.

Calcitic and dolomitic limestone applications create an even and consistent growing medium pH. When using both forms of limestone, a better control of the pH can be achieved; the calcitic limestone quickly releases and stabilizes the growing medium's pH while the dolomitic limestone slowly releases over the course of the crop, which results in a pH level that is relatively stable through the crop cycle.



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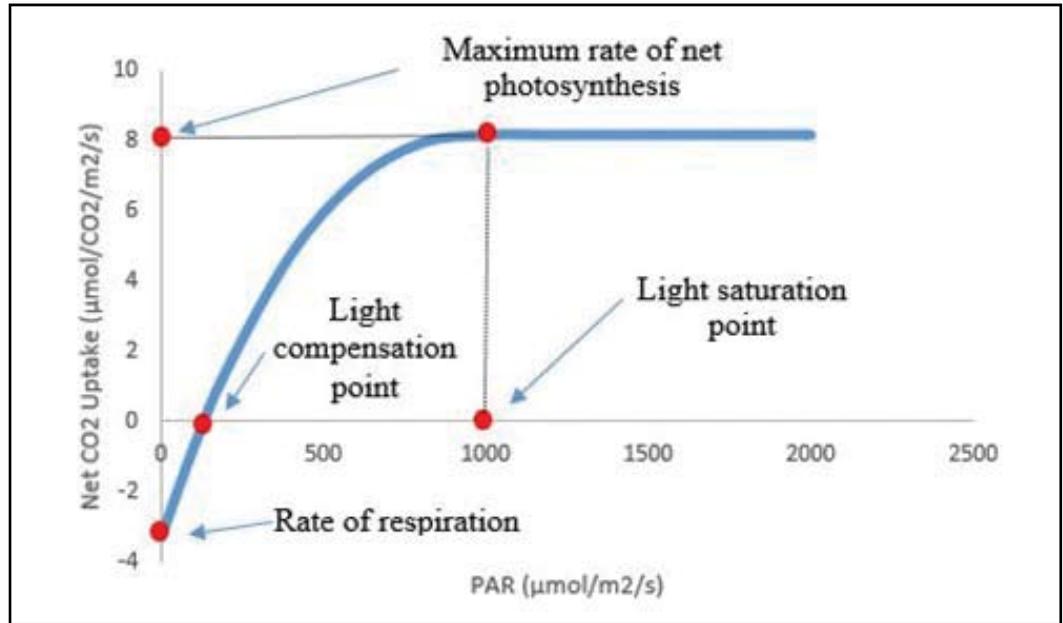
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Influence of Light on Crop Growth

By Jose Chen Lopez

“Figure 1. Graph of the light compensation point and the light saturation point.”

Plants require light for optimum growth and development, but the three different aspects of light, quantity, quality and duration, also have a significant influence on growth. A plant under natural conditions receives light from the sun; the amount, quality and duration greatly depend on the season of the year, hour of the day, geographical location and weather.



Below we will further explain the effect of each aspect on plant growth and development.

Quantity of light: Plants use light as a source of energy for photosynthesis. The term photosynthesis refers to the reaction between carbon dioxide and water in the presence of light to produce carbohydrates and oxygen. The rate of this process is highly dependent on the light quantity; the photosynthesis rate is higher as the Photosynthetic Active Radiation (PAR) increases. The carbohydrates produced during photosynthesis are stored and used by the plant as a food source. Each plant species starts the process of photosynthesis at different light energy levels, which is called the light compensation point. This point starts when light energy is sufficient for photosynthetic activity to produce more oxygen than is required by the plant for respiration. Likewise, the release of carbon dioxide through respiration by the plant must be less than the total carbon dioxide used by the plant for photosynthesis. In other words, the net photosynthesis (Eq. 1) is zero:

$$\text{Net Photosynthesis} = \text{Photosynthesis} - \text{Respiration} \quad (1)$$

Light saturation point. More light generally equates to higher levels of photosynthesis. However as the light intensity increases, the photosynthetic rate eventually reaches a maximum point. This point where the light intensity does not increase the photosynthesis rate is called the light saturation point. When this point is reached, the photosynthesis rate curve becomes flat (Figure 1).

When it comes to flowering, the length of the day is important to know as it directly impacts the timing of flowering for many ornamental crops.

Light quality: Light quality refers to the color or wavelength. The sun emits wavelengths between 280 and 2800 nm (97% of total spectral distribution). They are divided into three regions: Ultraviolet (100-380 nm), visible light (380-780 nm) and infrared (700-3000 nm). The highest energy corresponds to the lowest wavelengths; ultraviolet has higher energy than red. We as humans see wavelengths between 380-770 nm; this range is called visible light. Visible light is divided into: violet (380-430 nm), blue (430-500 nm), green (500-570 nm), yellow (570-590 nm), orange (590-630 nm) and red (630-770). On the other hand, plants photosynthesize between 400-700 nm; this range is known as Photosynthetic Active Radiation (PAR). Chlorophyll, the green pigment in leaves responsible for absorbing the PAR, has two peaks of absorption: blue and red light. Leaves absorb little green and reflect it back; this is why we see the green color of the leaves.

In general, different colors have different effects on plants:

- **Ultraviolet Light:** Ultraviolet light causes DNA damage, reduces photosynthesis rate, flowering and pollination decrease, and seed development

is affected. Ultraviolet A (a subcategory of ultraviolet light) can cause plant elongation.

- **Blue Light:** It corresponds to one of the absorption peaks; therefore, the photosynthetic process is more efficient when there is blue light. Blue light is responsible for vegetative and leaf growth and is important for seedlings and young plants because it helps reduce plant stretching.

- **Red Light:** This is the other peak of light absorption by the leaves. Phytochrome (a photoreceptor) within the leaves is more sensitive to and responds to red light. This light is important in the regulation of flowering and fruiting. It also helps increase stem diameter and promotes branching.

- **Far Red Light:** This light can cause plant elongation and trigger flowering in long-day plants.

- **Red: Far Red Ratio:** Plant elongation results when this ratio is low. In other words, plants are more exposed to far red than red. In nature, we see this phenomenon when plants are shaded by neighbouring plants; the shaded plants receive a higher ratio of far red light and tend to grow taller to reach more light. This can become a problem with greenhouse crops that are shaded by overhead baskets or are planted too close together.

Different light sources distribute light differently:

Incandescent lamp: it generates almost a linear trend with little light coming from the blue spectrum and the highest light coming from the red spectrum.

Fluorescent lamps: they generate most of their light in the blue, green and red spectrum, with the highest light level coming from the blue spectrum.

High pressure sodium lamp: the highest peak is green closely followed by red.

Metal halide lamp: the highest peak is in the green spectrum; the red spectrum has about half the energy peak as green followed by blue.

Light Emitting Diodes (LED): this type of light emits a specific wavelength. The manufacturer can produce these diodes in a specific color/wavelength (monochromatic) that a customer requires.

Light Duration or Photoperiod: The number of hours of day light per day directly impacts flowering. Plants can be divided into three categories based on the required day length needed to trigger flowering:

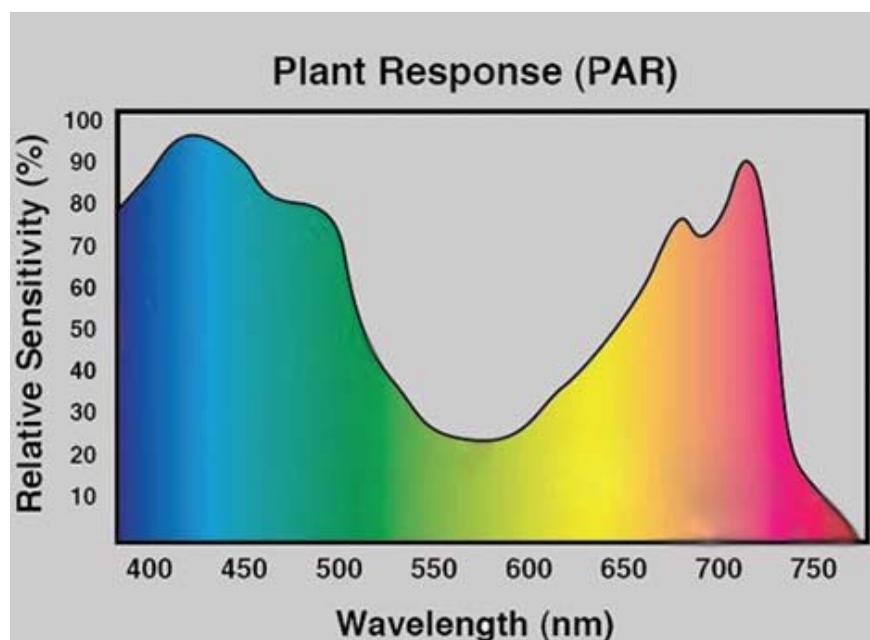
Short-day plants: These plants flower only when the day length is shorter than the night. They bloom in early spring or fall. When the day length exceeds a critical time, plants stop flowering and go into vegetative growth. Examples include: chrysanthemum, cosmos, kalanchoe, poinsettia, zinnia, etc.

Long-day plants: These plants flower

when the day length is longer than the night. They flower in late spring to early summer. When the day length is shorter than a critical time, plants stop flowering and go into vegetative growth. Examples include: carnation, dill, foxglove, petunia, snapdragon, etc.

Day-neutral plants: These plants flower regardless of the day length. Instead, they usually flower after reaching certain stages of development. Examples include: celery, cucumber, hydrangea, pansy, pepper, tomato, etc.

In summary, the most important process triggered by light in plants is photosynthesis. Photosynthesis is a process used by the plant to produce food to help build more plant material. The faster the photosynthetic rate, the faster the plant grows. The rate of photosynthesis is impacted mostly by the light intensity and quality. When it comes to flowering, the length of the day is important to know as it directly impacts the timing of flowering for many ornamental crops. For example it is impossible to cause a short-day plant like poinsettia to bloom in the summer under natural conditions.



TRACKING High-Value Air Cargo By GPS

High-value air cargo, particularly perishable cargo such as cut flowers and cargo which needs very careful handling, needs to be monitored carefully throughout its journey – from its arrival at the outbound cargo warehouse or drop-off point to its unloading and passage through the warehouse at the flight's destination.

To satisfy its requirements for tracking delicate air cargo and monitoring its condition throughout every phase of every flight it must choose a company providing GPS tracking device for use on board its freighters.

Being able to know exactly where cargo is, and being able to track or monitor it on your smartphone, desktop or via your own tracking platform is critical to the next generation of services.

The systems should allow for close monitoring of high-value air cargo, temperature sensitive products and equipment. The units go into 'Airplane Mode' while in the air, but communicate the moment they exit the aircraft, helping minimise the ramp time of sensitive cargo.

The GPS tracking device should have a built-in accelerometer, as well as light, temperature and barometric sensors. The system will trigger an alert if it is subjected to any irregular event, such as a change of location or temperature, an impact, or exposure to light.

At each point in the shipping process, growers should receive a real-time alert from the GPS sensors and thus know immediately when the product has left the warehouse, when it has arrived at the destination airport and when it has been delivered to its final destination. Temperature alerts from the air units should



notify growers of temperature deviations, as well as in the event of a fire or a cargo-container door opening. The unit's light sensor should provide an alert if there is a theft attempt. The unit should be suitable for use both with standard airline ULD (Unit Load Device) pallets and ULD containers.

Via computer or mobile-device displays, the control system which accompanies each set of units provide shippers with records of historical sensor conditions and special-event alerts, assisting investigation of any incidents experienced while the cargo being monitored is shipped.

Logistics Must Ensure A smooth Ride for Africa's Flower Industry

It is estimated that for the African flower exporters, particularly those in Kenya, one of the world's largest exporter of cut roses, the cost of logistics is anywhere between 40 to 60 percent of the total cost. This is humongous. Growers and flower exporters in Kenya want a solution to reduce the cost of freight.

At the first ever Flower Logistics Africa conference that just concluded in Nairobi, the key takeaway was to collaborate with every stakeholder in the flower supply value chain to reduce cost, improve efficiencies of flower transport and make Kenya a global flower power that sets global benchmarks in production, transportation and distribution.

Making her keynote address at the inaugural edition of Flower Logistics Africa, organised by Logistics Update Africa, a key Africa focused transport and logistics publication from STAT Media Group, Jane Ngige, the chief executive officer of Kenya Flower Council (KFC) said that the Kenya flower industry need to ensure the 'A' quality flower leaving farms reach consumers in all destinations as the same 'A'

quality.

Conference participants acknowledged that there was the stereotype in Europe about the African flower not being the best quality. This, according to many participants, hinders African flower exporters from getting the best prices at auctions. "Many African growers are at a disadvantage as compared to their counterparts across the globe due to poor infrastructure support here in Kenya," said Bimal Kantaria, director, Elgon Kenya, while participating in the opening panel discussion.

According to Ngige, flowers from Kenya are going to over 60 different destinations worldwide. "500 tonnes of flower airlifted daily from Kenya," she added.

At the two-day conference, the discussion was around the huge opportunity to grow the horticulture industry which, according to industry estimates, contributes to 7 percent of export. Participating in a variety of panel discussion, the consensus was that the industry is heavily dependent on Europe and the future lies in discovery of new markets.



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How the Kenyan Flower Industry was Saved from a Disaster

The Kenyan flower industry has been spared decline thanks to a permanent Market Access Regulation between the EU and Kenya. Union Fleurs and the Kenya Flower Council's great efforts have contributed to the import duty exemption currently in place for Kenyan flowers exported to the European Union since 1 October 2016.

For a long time, the future was looking very bleak for the Kenyan flower industry. Kenya desperately needed the East African Community (EAC) to sign the Economic Partnership Agreement (EPA) with the European Union (EU) before the 1st of October. Without this EPA, the country was the only one of the five EAC countries that was going to have to pay European import duties on flowers and other products.

The other four countries - Burundi, Rwanda, Tanzania and Uganda - were already exempt from European import duties as they were categorised as 'least developed countries'. But Kenya wasn't. Because the five countries had agreed during the EPA negotiations (in 2008), that an EPA agreement could only be reached if all five countries signed and ratified the EPA, Kenya was getting very anxious when the deadline of 1 October 2016 was starting to get closer. In September, only two countries had signed: Kenya and Rwanda.

High import duties

EAC regional dynamics prevented the five countries to come to a clear position during summer and to proceed together with signature and ratification of the EPA with the EU in good time before 1 October 2016.

Tanzania in particular, wasn't in any hurry to sign the agreement. "Tanzania wasn't ready. The government wanted clarity from the EU regarding the impact of Brexit on an EPA", explains Sylvie Mamias.

Mamias is the Secretary General of Union Fleurs, the international flower trade association, based in Brussels, which has been involved in the EPA negotiations from the beginning in 2003. High import duties for Kenyan flowers exported to the EU were looming.

Mamias explains that, without an agreement, 8.5% import duties were due for rose, the most important floricultural export product, in October. For November and December, the rate would have been 5% due to a temporary 'general preference system'.

However, from 1 January 2017, the rates would have gone back up to 8.5-12%. this time with no possibility in sight to revert to duty-free at a later point in time, contrarily to what had happened at the end of 2014. The imposition of duties on all exports from Kenya to the EU would, this time around, be of a long-lasting nature and therefore a disaster for the whole flower supply-chain as it would not have been able to absorb such extra-costs on low-margin products

Export value 350 million Euro

Mamias: "A rate of 5% is already too high for Kenyan flowers. Rates of 8.5 to 12% are totally impossible. With an export value of 350 million EUR a year from Kenya to the EU for roses only, it is easy to do the maths and realise the extra-costs the supply-chain would have had to bear. It would destroy the Kenyan flower industry. What's more, the entire worldwide floriculture chain would be affected if a large player like Kenya went down. There isn't a single country that would be able to cover the large volume that Kenya produces just like that. In the long run, it would be bad for everyone if the Kenyan flower industry collapsed."



Last summer, when it looked like the 1 October 2016 deadline wouldn't be met on time, Kenya decided – after talks with other EAC countries – to act alone and to try and reach a bilateral solution with the EU.

“It was a very tricky situation for Kenyans. They didn't want to abandon the East African Community, but they had to think of themselves. High taxation rates for Kenya were looming,” explains Mamias.

„And Kenya was the only one of the 5 EAC countries to be directly penalised if the EPA was not signed and ratified by 1 October 2016.” Under those circumstances, and if no settlement was found before 1 October 2016, Kenya stood to lose its second most important export destination market overnight. This would have directly affected over 4 million people in Kenya and potentially trigger the closing down of more than 200 firms in the floriculture, horticulture and agro-processed industries, with investments estimated over 2 billion EUR.

Destroyed

Last August, a Kenyan trading delegation left for



Brussels, in order to convince the EU that not having a special agreement between the EU and Kenya, wouldn't just destroy the Kenyan flower industry, but would affect the floricultural market worldwide. Companies which import flowers from Kenya will also be hit.

The trade delegation made its case in presentations to the European Parliament and the European Commission and expressed its readiness to sign the EPA immediately in order to maintain the EU's preferential treatment of Kenya.

Union Fleurs and the Kenya Flower Council were part of the trade delegation, which was led by the Kenyan Minister of Trade Mr. Adan Mohamed. Mamias stresses that the delegation tried to give Brussels the bigger picture.

“The horticultural industry is a very big employer in Kenya and many people depend on flower export in an indirect way as well. It provides people with a future and a job. If the flower industry collapsed, this would have a huge effect on the entire economy and society.” This is what the delegation tried to explain to the various EU bodies, says Mamias.

“Kenyans would no longer have a future in their own country and might leave. They would try to go to Europe, because they need work to survive. Duty-free import in the EU simply offers the best perspective for Kenya and for the EU. The flower industry is keeping people busy and keeps them away from poverty and insecurity. Don't take away Kenya's flower industry, because its influence is huge.”

EU comes round

The EPA was signed in Brussels on 1 September by Kenya, Rwanda and the EU. The Kenyan delegation rushed back home to expedite ratification of the EPA by their parliament. In fact, the Kenyan parliament had to be called back from their recess.

On 28 September Kenya informed the EU that she had ratified the EPA and therefore completed on time before 1 October all the necessary steps that were required for Kenya to keep duty-free access to the EU market.

As a result, the EU has maintained for Kenya the benefits of the Market Access Regulation (MAR), which was in application since 2008 and now continues to apply with no specific deadline.

Expediting the EPA

The MAR now grants Kenya duty-free access to the EU market on a long-term basis and without any specific deadline for expiry, but it remains a unilateral instrument in the hands of the EU.

That is why the Secretary General of Union Fleurs feels it's important to expedite finalising the EPA between EU and the East African countries in order to strengthen Kenya and the EAC region's permanent trading position with the EU in the long-term.

The EPA aims to improve regional integration and economic development and to provide better access to the European market for, in this case, the EAC members.

“The EPA is a comprehensive bilateral trade agreement, which involves much more than duty free trading with the EU. It also includes the protection of investments in the five African countries as well as technical support, rules of origin and development cooperation. These are also beneficial aspects for the floricultural industry in the long-run”, emphasises Mamias.

Mamias considers the MAR a suboptimal situation. “The most optimal situation is an Economic Partnership Agreement between the EU and EAC. We don’t know how the EU is going to develop, or what the impact of Brexit is going to be. Those are risk factors. A ratified EPA is the only way to be sure that the free trade of our flowers in Europe benefits from the best conditions and from a permanently secured level-playing field and enabling environment for Kenya and European companies in the floriculture sector.”

Message to Tanzania

Mamias adds that the EPA is the best starting point for the five EAC countries when negotiations about a trade agreement with the United Kingdom are going to start.

“When those negotiations begin, they will be based on whatever agreement is in place at that time. And the outcome has to be the same or better, never worse. That is one of the main principles in international negotiations on trade agreements. That is why our message to Tanzania and the other countries is: ensure our access to the EU market now, when the UK is still part of it. If there is no EPA between the EU and the EAC-region in place when we begin their negotiations with the UK, our starting point will be a lot weaker.”

The East African countries will resume their talks about the EPA in January.

Appreciation Awards

In addition to Sylvie Mamias, the Kenyan Flower Council’s Jane Ngige (director) and Richard Fox (chairman) have been involved in the entire process around the EPA, from 2003.



The fate of Kenya’s floriculture was more or less in their hands. Members of Union Fleurs and the Kenya Flower Council followed the developments anxiously, in particular the largest players in Kenya and in the EU.

“They were confident that we would do our utmost to help sort out the situation, as they had already seen what we – Kenya Flower Council and Union Fleurs - had been able to achieve end of 2014 when Kenya was faced with a period of duties. They really supported us. And their confidence helped us. At the same time, we did feel we were carrying a huge responsibility. Imagine we hadn’t succeeded?”, says Mamias.

On 1 November Dutch Flower Group expressed how much they valued Mamias, Ngige and Fox’s work by presenting them with an Appreciation Award.

Mamias: “It was very special to feel that recognition and thankfulness. Our work isn’t always visible to our members in the floriculture trade and to the flower industry at large. Most of the time, companies aren’t aware of the fruits of our labour as our mandate, as trade associations, is to focus on the enabling and pre-competitive environment in which companies operate, and not to get directly involved in operational or commercial activities. We really appreciate the fact that Dutch Flower Group has been able to recognise our efforts. And I am very satisfied that this entire process went into the

right direction. It prevents a lot of problems in the flower industry and for all the jobs and livelihoods that depend from it in Kenya and in Europe.”

In dire straits

During the week of IFTF and RFHTF, Sylvie Mamias, Richard Fox and Jane Ngige were invited by Dutch Flower Group for a dinner. CEO Marco van Zijverden, CFO Harry Brockhoff, Retail Director Boudewijn Rip and Marketing Director Marcel Zandvliet were all there. They personally handed over the prize, the DFG Appreciation Award, to their three guests as a sign of gratitude for their work.

Rip said: “These people are always working behind the scenes and they never get a pat on the back. But their work has an immense impact. We spend tens of millions of euros on the import of Kenyan flowers and so do our colleagues. If the import duties had been introduced, Kenya would have been in dire straits. Furthermore, we wouldn’t have had any alternatives for the Kenyan flowers that would have become too expensive. The fact that the introduction of European import duties on flowers from Kenya has come to a halt, is a blessing both for Kenya and for the parties that trade those flowers. And we have to thank these people, especially Sylvie, for it.”

Courtesy

Arie-Frans Middelburg
afmiddelburg@hortipoint.nl



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Computing Power will Increase Dramatically

Computer performance will increase rapidly in the next few years. 'Think about possible applications in your own sector,' Maarten Steinbuch, Professor Systems and Control at TU Eindhoven in the Netherlands suggests

Moore's law states that the performance of a computer chip doubles every 18 months. A computer will have the same calculating ability as a human being in ten years' time, and as much as the whole of humanity in thirty years. What will the result of this development be for society, and in particular for the greenhouse-based horticultural industry? Maarten Steinbuch, Professor Systems and Control at TU Eindhoven, sees enormous opportunities.

What is your link with horticulture?

'The Netherlands is a forerunner when it comes to high-tech. It also has a worldwide reputation in the area of agri-food and horticulture. At the TU Eindhoven, we are carrying out research into how these two sectors can be brought together.'

How can this be applied in the horticultural industry?

'Technological progress is associated with price and capacity of computer chips. Sensors and Integrated Circuits (ICs) are falling in price all the time. It is becoming cheaper for growers to take measurements and improve their processes. Measurements are taken per greenhouse or section, but in ten years' time, you will pretty much be able to measure moisture condition, nutritional requirement, health, and growing conditions per individual plant.'

How fast is computer development going?

'According to Moore's Law, performance doubles every 18 months. That is an exponential increase. The predictions are that the computer will have the same calculating ability as a human being in ten years' time, and as much computing power as the whole of humanity in thirty years. Computers are also learning faster, and if one has learned something, it can be copied to other computers all over the world.'

Is there a limit?

'We expect development to continue at this speed for at least 20 years. ASML is working on the next generation of wafer scanners,

which make much thinner lines on the ICs, so more calculations are possible. The quantum computer might become a reality next; this does not work in zeros and ones, but in intermediate steps. This will give a huge acceleration in computing power, maybe a thousand times faster. The development of the quantum computer is still in the stage of fundamental research.'

What will the increase in computing power mean for employment?

'I expect that many functions will be replaced with artificial intelligence. Repetitive actions in particular, but repetitive tasks in service provision too. Receptionists, middle-management personnel, civil servants in functions that can be automated: all those sorts of jobs will disappear. That's already happening but will accelerate rapidly. A lot has already been automated in the greenhouse-based horticultural industry. In some potted-plant nurseries, there are only very few employees; that's where you already see the impact of automation. Another branch is robotics. Industrial robots are being used in the horticultural industry, but these are actually relatively simple "pick-and-place" machines. Some research has been carried out on robots that can harvest or pick leaves. It appears that it's more complex and difficult to make these cost-effective. Then you realise how clever human beings really are. It's still a challenge to make these robots cost-effective.'

Will a robot be able to replace an entrepreneur?

'Artificial intelligence can replace knowledge. Entrepreneurship is a matter of both knowledge and intuition. Entrepreneurs can combine things, for example, a rumour that they've heard about a competitor. A computer will never go out for a drink to network; humans do. We can read between the lines, and think creatively.'

What should horticulture do now?

It is a matter of developing the high-tech applications for the sector and for the

individual company.'

Which forms of high-tech are you thinking about?

Systems and control technology, robotics, sensor technology, data analysis, mechanical engineering, mechatronics, the Internet of things; all of these are technologies which we can apply profitably in the horticultural industry. You can increase knowledge quickly by working together.'

What is the Internet of things?

'At this moment, 5 billion devices are connected to the Internet: not only computers and phones but also homes, cars, vacuum cleaners, and refrigerators. It's expected that there will be a tenfold increase over five years; by then, 50 billion devices will be connected to the Internet.'

Can the software keep pace with hardware development? Programmers don't become smarter exponentially.

'I expect software to make the software in the future.'

What will the impact be on society?

'I think that people are very resilient and creative. Ten years ago we could barely imagine it, but these days everyone is spending the whole day typing on their phones. Everybody now finds it perfectly normal to have a continuous connection to the Internet. We get used to new technologies quickly. We are also good at figuring out how we can use them. We are heading towards a society where everything is easier and better. I expect electricity to be very cheap in the future; solar panels are getting cheaper and more efficient. All very interesting.'

My message is: Devices are becoming better and cheaper, as is computer performance. Development will progress very rapidly. It's good to see that measurement and control systems in horticulture are receiving a lot of attention. As a high-tech sector, we can help with this.'



“A stable currency is most desirable for forecasting business costs; especially where there is importing and exporting activities associated with the business.”

Managing Foreign Exchange Risk

Foreign exchange losses have been the subject of much pain and heartaches to financial managers across many businesses. In some sectors and business rate movements have torn big holes into otherwise sound financial performance of business.

In this first part series, we make a brief simple introduction to Forex Risk and high level view of some available alternatives to manage the risk. Foreign exchange risk is type of market risk that arises from the uncertainty on the outturn of the rate on a future date. In a country such as Kenya where the economy practices managed-floating currency, there is always the risk that what the exchange rate will be in future date is not ascertainable in the present.

After one of its most turbulent year in recent year in 2015, few perhaps may have expected the Kenyan shilling to be so stable against the dollar this year. Indeed, predicting the path of asset prices such as foreign exchange rates consistently is extremely difficult. So much so that globally and locally many companies have gone under the heavy burden of forex losses stemming from holding too much forex

assets or liabilities with rate moving against them. As such, financial market experts worldwide employ many complex tools as well as spending significant sums all in the hope of being able to better predict future changes in currencies and manage forex losses.

A stable currency is most desirable for forecasting business costs; especially where there is importing and exporting activities associated with the business. These are activities that necessitate the use of foreign currency. Depending on whether you are buying or selling to or from the Rest of the World (ROW) the exchange rate and its movements will necessarily imply movement in your costs/revenue base.

Whereas a typical importer business is looking to buy goods from abroad and sell them in the local market, they will be concerned with shilling weakness, as this will increase their cost of goods sold denominated in local currency. Conversely, for an exporter, who sells to goods and services from Kenya abroad; they stand to benefit from a shilling weakness, as each dollar is exchangeable for more and more local currency.

‘It Would be Much Too Risky to Continue our Activities in Ethiopia’

2016 has been a very tough year for Esmeralda Farms. Last June, Peter Ullrich, founder and driving force behind one of the largest floricultural companies in the world, passed away. In August, their farm in Ethiopia was attacked by rebels. Present owner Clarisse Ullrich decided subsequently that Esmeralda would cease their activities in Africa. And the office in Aalsmeer, the Netherlands, was shut down as well. In the beginning of December, Clarisse Ullrich tells her story.

What would you do? We lost millions in Ethiopia. Would you invest another couple million to repair the damage, knowing that the same thing might happen again? Probably not!”
“When I heard that our Ethiopian farm had been attacked, I responded exactly like my husband would have done. Make sure everyone is safe.”

“For many years, Clarisse Ullrich supported her husband Peter Ullrich with his business and since he passed away, she’s taken over the leadership of what might be the largest flower company in the world: Esmeralda Farms. She had only assumed her new position for two months, when Esmeralda’s farm in Ethiopia was raided by rebels. Following the events, Clarisse Ullrich was faced with having to make hard decisions.

This meant that Esmeralda’s African adventure, which had started a year and a half earlier, was over. They had initially started supplying their European customers (through Esmeralda’s Dutch branch in Aalsmeer) gypsophila and spray roses from Ethiopia, because it was cheaper than from Latin America. But this strategy was suddenly abandoned last September after several Ethiopian flower companies, including Esmeralda, had become a target of tribal fights, despite the fact that Ethiopia had been such a stable place for floricultural companies before.

Completely destroyed

Esmeralda’s departure from Ethiopia was questioned in the media. How bad was the situation, really? Had the farm been totally destroyed, like employees in the Netherlands claimed? Or was the damage not as severe and could cultivation continue as normal without too much effort, like the Ethiopian Horticulture Producer Exporters Association (EHPEA) suggested? And those 10 million dollars of investments that had gone up in smoke? Had Esmeralda really invested such a large amount of money in Ethiopia? And

why did they have to close down the office in Aalsmeer as well?

The image painted by the media was inaccurate from Mrs. Ullrich’s perspective so she was happy to give an interview and clarify their side of the story.

Why did Esmeralda leave Ethiopia?

“The Ethiopian government suggested that our farm wasn’t damaged too badly and that we could continue our activities without too many problems. But we have absolutely no assurance that this isn’t going to happen again. And there isn’t anyone who will give us that guarantee either. There’s a good chance that if we invested another couple of million in the restoration of the farm, that we would lose that money as well. Furthermore, we can no longer guarantee our employees in Ethiopia a safe work environment. And on the 2nd of September, we received a letter from the Solidarity Movement for a New Ethiopia. It said that the land in Bahir Dar, that we were leasing from the government, didn’t actually belong to the government. The land had been confiscated from the original owners by the government during the communist revolution. The land was never returned to its rightful owners and they wanted us to know. In the end, we felt that we had been deceived into leasing what sounded like a land grab and caught in the middle of a war over it.

Was the farm really totally destroyed?

“I’ve seen many pictures and videos of the farm, taken after the attack by the rebels. Restoring the farm would require a

substantial amount of money and time to reorganize the employees. The fact that a packing house isn't totally destroyed, doesn't mean that it can be repaired and operations resumed immediately. Regarding our initial investments, they did really amount to 10 million dollars. We put down 2 million ourselves, the remaining 8 million was financed. Many people are unaware of what it takes to get a farm up and running, but we invested heavily in irrigation and infrastructure. Support from the government came by way of leasing the land."

They say that Ethiopia is quite safe now yet a state of emergency was declared and flower farms are now guarded by the military...

"There you go. flower farms are guarded. Who can guarantee that things will be better in six months time? Would you invest a few million dollars to repair the damage, knowing that the same thing might happen again? Probably not!"

Are you sure you won't ever return to Ethiopia?

"I've spoken with many growers at trade shows that are also in Ethiopia and they all share my opinion...It's a gamble. Especially after that letter from the Solidarity Movement, it would be much too risky to continue our activities in Ethiopia."

One of the stories is that you already planned to sell the farm in Ethiopia?

"If it was generating profits I'm unsure what anyone would gain by saying that."

Why was the office in Aalsmeer closed down as well?

"Because most of the products sold through that office came from Africa. If the branch in the Netherlands no longer received its production, it's overhead became too expensive to keep it running."

Wouldn't it have been an option to sell Esmeralda's Latin American production

to European customers through the office in Aalsmeer, just like before your time in Africa?

"Yes, we could have but at a significant loss. No one would shut down a profitable office. This was purely a business decision. You don't make these decisions for personal reasons. The operations cost in Aalsmeer was disproportioned to its revenues. The overhead was much too high to remain profitable."

Is Esmeralda Farms in its entirety a profitable company?

"Gladly we're doing well, but after my husband passed away, I concurred with financial counsel that we couldn't remain that way with the segments of our company that was generating losses. The focus now is reinforcing our strengths and terminating any vulnerabilities."

Supplying the European market from Latin America isn't cheap either, is it?

"True. Both the production costs and the logistical costs are a bit higher than in Africa. Customers have commented on the increase of cost which we deeply regret but it's caused by circumstances that are out of our control." We went out on a proverbial limb trying to provide a better option.

Aren't you afraid of losing customers?

"Everyone in business is. But more than afraid, it bothers me. Nobody wants to disappoint their customers. We appreciate our customers and value the loyalty they place in our products. This is why we are committed to working really hard in maintaining the relationships we've built with them through the years. The circumstances have changed, but we will continue to deliver excellent products supplying them farm direct from South America. At the moment, we're very much focused on the United States and Europe. But I'm eager to explore other markets too, like China and Russia. Territories that we

haven't really tapped yet."

Esmeralda reopened a farm in Ecuador, so that they can continue to produce enough flowers for the European market. Is Ecuador the most favorable country for production?

"Depends how you look at it. Balance the production costs against the political situation in a country. The production costs in Ecuador are higher than in Ethiopia, but it's much safer and stable. From this perspective it's a far sounder place to make an investment."

Esmeralda is also active in Colombia. Why didn't you expand over there?

"Colombia is doing very well. The production in our farms there is very high and the quality is excellent. But the costs are more or less the same as Ecuador. The advantages or disadvantages are distinctly marked by fluctuations in tax rates, monetary exchange and employment cost. It seems that they take turns when it comes to favorability."

It must have been a very tough year for Esmeralda Farms?

"An extremely tough year. But it was sown to be strong by an amazing man. Our company boasts a powerhouse of employees, who love what they do and who are really committed to its success. This attitude is reflected in the quality of our flowers. He left us with all the ingredients to not only to survive, but come back even stronger. I have always supported my husband and through his legacy, I always will. Peter was Esmeralda Farms' heartbeat and that will never change. He was a gift to all that knew him and invested much of himself in his employees. He would expect nothing less than for all of us to flourish."

Courtesy

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Powdery Mildew: A Threat to Rose Growing

Introduction

Powdery mildew is a fungal disease that affects a wide range of plants. Powdery mildew diseases are caused by many different species of fungi in the order Erysiphales. There are numerous fungi that fall under the general description of a powdery mildew. They will be treated together here since most of these have similar habits and similar management practices. Plants that are commonly infected by powdery mildew include



African violet and begonia. Outdoors there are numerous plants that may be infected in any year, but lilac, phlox, some rose varieties and fruit trees seem to be infected most frequently.

The actual injury to the plant varies greatly with the species and even the variety attacked. For instance, lilacs are typically infected late in the growing season and this does not usually cause serious injury to the plants. Lilacs are able to survive year after year in spite of the disease. On the other hand, begonia may be seriously injured by even a mild infection. The tissue under the fungal growth dies soon after infection resulting in leaf drop and poor plant growth. Thorough management practices must be implemented in this case. Among roses there are varieties that are more seriously affected than others. If powdery mildew has been a problem in the past, choose a variety that has some resistance to the disease.

Symptoms

Powdery mildew appears as a dusty white to gray coating over leaf surfaces or other plant parts. In most cases this fungal growth can be partially removed by rubbing the leaves. It might be identified incorrectly as dust that has accumulated on the leaves. Powdery mildew, however, will begin as discrete, usually circular, powdery white spots. As these spots expand they will

coalesce, producing a continuous matt of mildew (similar to dirt or dust). A plant pathologist using a microscope can determine whether a fungus is present anytime the whitish patches are present.

Symptoms usually appear late in the growing season on outdoor crops. The fungus is favored by periods of high relative humidity or site conditions that promote a more humid environment, such as close spacing of plants, densely growing plants, or shade. Indoors, symptoms may occur at any time of year, but the rate of spread and development will be affected by the relative humidity and temperature.

Injury due to powdery mildews includes stunting and distortion of leaves, buds, growing tips, and fruit. The fungus may cause death of invaded tissue (begonia, for example). Yellowing of leaves and death of tissue may result in premature leaf drop. Nutrients are removed from the plant by the fungus during infection and may result in a general decline in the growth and vigor of the plant. The seriousness of the disease will depend on the extent of the various types of injury.

Disease cycle

The fungi which cause powdery mildew are spread by spores produced in the white patches. These spores are blown in the wind to other parts of the plant or to other plants during the growing season. Generally each species of fungus will be limited in the number of plant species that can be attacked. For example the species of fungus infecting lilacs will not cause powdery mildew on apples.

During the winter the fungus survives on infected plant parts and in debris such as fallen leaves. It may produce resting structures known as cleistothecia, which resist harsh winter conditions. These will appear as small black dots within the white powdery patches. The next spring, sexual spores (ascospores) are released from the cleistothecia, shot up into the air, and carried by air currents to leaves of plants where new infections will begin.

During the growing season, the fungus produces asexual spores (conidia) that help the fungus to

spread and infection to build. This is the general cycle for most powdery mildews of outdoor plants. With houseplants the overwintering stage is of little significance. Depending on the environmental conditions indoors, the fungus could continue to grow and spread during the entire year.

Damage

The severity of the disease depends on many factors which include: variety of the host plant, age and condition of the plant and weather conditions during the growing season. Powdery mildews are severe in warm, dry weather because, unlike most fungi, powdery mildew requires a wet leaf surface for infection to occur. However, the relative humidity of the air does need to be high for spore germination. Therefore, the disease is common in crowded plantings where air circulation is poor and in damp, shaded areas. Incidence of infection increases as relative humidity rises to 90 percent, but it does not occur when leaf surfaces are wet (e.g. in a rain shower).

Young, succulent growth is usually more susceptible than older plant tissues. Powdery mildew can seriously impact yield on flowering crops such as squash, pumpkins, cyclamen and reiger begonia, but on other plants such as lilac and oak, the mildew is unsightly but does not severely harm the plant.



Management Strategies

There are several effective fungicides available for different sites and plants, but use on plants varies with each product, and not all fungicides registered for use to treat powdery mildew may be used on all plants. Be certain the product you purchase is labeled for the intended use(s), and follow directions on that label.

For indoor plants, disease management includes gathering up and destroying fallen leaves, reducing relative humidity around plants, and spraying with a fungicide.

For outdoor ornamental plants, gather up fallen leaves in autumn and destroy them. Where powdery mildew is a problem, resistant varieties



(if available) should be grown. If needed during the growing season, begin fungicide applications when the first white patches are noticed. Repeat as indicated on the product label during cool humid weather. Some products with a broad range of applications for outdoor ornamentals include products containing: *Bacillus subtilis*, neem oil, potassium bicarbonate, sulfur or lime sulfur. Some of these products may also be used to treat powdery mildew infections in the vegetable garden.

Management of powdery mildew on fruit trees may be combined with the normal spray schedule and should begin at the green tip bud stage for apples.

Train workers and integrated pest management (IPM) scouts to recognize early symptoms and signs of powdery mildew. Early disease detection is important for successful powdery mildew control. Follow season-long monitoring for powdery mildew starting as soon as new plants are placed in the greenhouse.

Recognizing Powdery Mildew

As the name implies, powdery mildew looks like powdery splotches of white or gray, on the leaves and stems of plants. There are actually several types of powdery mildew fungi, but they all look basically the same. You may not notice a problem until the top surfaces of the leaves turn powdery, but powdery mildew can also affect the lower leaf surface, stems, flowers, buds and even the fruit.

Although powdery mildew is unattractive, it is rarely fatal. However it does stress the plant and severe or repetitive infections will weaken the plant. If enough of the leaf surface becomes covered with powdery mildew, photosynthesis is impaired. Infected leaves often fall prematurely. This can be a particular problem on edible crops, since insufficient photosynthesis can diminish the flavor of the fruit or vegetable. If buds become infected, they may not open and mature at all. Powdery mildew fungi are host specific, meaning the different powdery mildew fungi infect different plants. The powdery mildew on your lilacs will not spread to your grapes or your roses. However all powdery mildews favor the same conditions.

Causes of Powdery Mildew

Powdery mildew fungi seem to be everywhere. They overwinter in plant debris begin producing spores in the spring. These spores are carried to your plants by wind, insects and splashing water. Conditions that encourage the growth and spread of powdery mildew include: dampness or high humidity (Not common during rainy seasons or in extreme heat), crowded plantings and poor air circulation

Environment Favoring Powdery Mildews

Most powdery mildew fungi produce airborne spores and infect plants when temperatures are moderate (60 to 80 degrees F) and will not be present during the hottest days of the summer. Unlike most other fungi that infect plants, powdery



mildew fungi do not require free water on the plant surface in order to germinate and infect. Some powdery mildew fungi, especially those on rose, apple, and cherry are favored by high humidity. Overcrowding and shading will keep plants cool and promote higher humidity. These conditions are highly conducive to powdery mildew development.

Controlling Powdery Mildew

Before using fungicides you should attempt to limit powdery mildews by other means. The following cultural practices should be beneficial for controlling powdery mildews.

Purchase only top-quality, disease-free plants of resistant cultivars and species from a reputable nursery, greenhouse or garden center. Horticulturists in the green industry and Extension offices should be consulted concerning the availability and performance of resistant varieties.

Prune out diseased terminals of woody plants, such as rose and crabapple, during the normal pruning period. All dead wood should be removed and destroyed (preferably by burning). Rake up and destroy all dead leaves that might harbor the fungus.

Once your plants are infected:

- Avoid late-summer applications of nitrogen fertilizer to limit the production of succulent tissue (which is more susceptible to infection).
- Avoid overhead watering to help reduce the relative humidity or water in the early morning to let the tissue dry as soon as possible.
- Remove and destroy all infected plant parts (leaves, etc.). For infected vegetables and other annuals, remove as much of the plant and its debris in the fall. This decreases the ability of the fungus to survive the winter. Do not compost infected plant debris. Temperatures often are not hot enough to kill the fungus.
- Selectively prune overcrowded plant material to help increase air circulation. This helps reduce relative humidity and infection.
- An alternative nontoxic control for mildew is baking soda combined with lightweight horticultural oil. Researchers at the University of Rhode Island have confirmed that a combination of 1 tablespoon baking soda plus 2.5 tablespoons oil in 1 gallon of water is effective against powdery mildew on roses. Use of this combination on other crops is still experimental.
- Apply a fungicide: There are many fungicides available. Check the label to be sure they are safe and effective on the type of plant that is infected. Look for ingredients such as: potassium bicarbonate, neem oil, sulfur or copper. There are also chemical fungicides, that can be used on ornamental plants. There is also a home remedy made from baking soda that is effective.

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Before and during the fair, the trade visitors will be able to rely on a tested infrastructure and profit from new features on the occasion of next year's event:

Structured Hall Allocation

Because of the comprehensive modernization of the fair site in Essen, Hall 9 and the upper-storey halls will be dispensed with on the occasion of IPM ESSEN 2017. The temporary Halls 13 and 14 as well as the Grugahalle directly connected to the East Fair Building will be available as replacements. This will result in new, clearly structured hall allocation for the Plants, Technology and Floristry exhibition areas.

Halls 13 and 14: Italy

The temporary Halls 13 and 14 as well as the Grugahalle will be occupied by the Italian plant exhibitors who could previously be found in the whole of Hall 6. Halls 4 and 6: Floristry

In 2017, the Floristry exhibitors from Hall 7 and the upper-storey halls will move into the former Italy hall (Hall 6) - directly connected to Hall 4. This will lead



to a large, interconnected Floristry area at the heart of the fair site.

Hall 7: Plants Area / Joint Booths / Technology Area

The eastern part of Hall 7 will be assigned to the Plants area. In 2017, it will be possible to find here exhibitors from Hall 9, including the Spanish, Portuguese and Polish joint booths. Technology exhibitors will occupy the western half as an extension to the Galeria and Hall 3.

Galeria: Plants Area

At IPM ESSEN 2017, it will be possible to find plants, particularly flowering pot plants, flower bulbs and cut flowers, in the Galeria in addition. The exhibitors will also include the French joint booth which has presented itself in Hall 2 until now.

Access Routes into the Fair Halls

From the east, you will be able to enter the fair directly through the temporary foyer on Hall 14. All the visitors walking into the fair from the east will be guided through Halls 13 and 14 when entering and leaving IPM ESSEN. From there, the direct connection to the other fair halls, as accustomed via Hall 12, will also be guaranteed by clear path guidance. In addition, the South entrances at Halls 1 and 1A as well as the West entrance at Hall 3 will be open as accustomed.

Online Ticket Shop and Ticket Office

Purchasing an admission ticket in the online shop in advance as a print-at-home ticket will save time on the way into the



Floriculture: Things Worth Knowing for Trade Visitors

fair halls. In the online shop, payments can be made by credit card (Visa, American Express and MasterCard), giro pay or immediate transfer. Furthermore, the ticket office will be available to visitors.

Admission Prices

One-day ticket for adults: Euro 23
Two-day ticket: Euro 34
Four-day ticket: Euro 59
Groups of 20+ people: Euro 13 per person
Trainees/schoolchildren/students: Euro 13

Free-of-Charge App as Support for Your Visit to the Fair

With a large number of functions, the free-of-charge app for IPM ESSEN 2017 will facilitate your visit to the fair. The app includes thorough directories of exhibitors and products as well as the representation of all the occupied halls and all the locations of the exhibitors. A personal visit planner can be compiled by selecting your favourites. The display of the exhibitor positions will serve to improve your orientation at the fair. The fair app can be

downloaded from the Google Play Store or the iTunes Store.

WLAN Access Free of Charge

Messe Essen will offer all the visitors free WLAN access in the fair halls. Exhibitors will find their access codes on the exhibitor passes. For visitors, hotspots in selected areas, e.g. the foyers and the congress centres, will also be available free of charge after registration.

Overnight Accommodation Possibilities in Essen

The city of Essen offers a wide diversity of overnight accommodation possibilities. The Atlantic Congress Hotel directly adjacent to the fair site will permit short paths. Furthermore, the Tourist Information Centre of the City of Essen will help you with advice in relation to the planning of your stay and will deal with any inquiries about offers and reservations.

Further info at <https://www.essen-tourismus.de> as well as <http://www.hrs.de/>.

Visa Service

On behalf of Messe Essen, the external service provider "Intercultural Consulting" will support any visitors applying for visas. After receiving the order, Intercultural Consulting will assume responsibility for the processing of the invitation formalities. Online form as well as further information at www.ipm-essen.de. **How to Get to IPM 2017**

Arriving by Car

By car, you can reach Messe Essen quickly and easily via the Rhine-Ruhr motorways A52, A3, A40 and A42. Address for navigation systems: Norbertstrasse 2, 45131 Essen.

Arriving by Train

The main railway station in Essen is the intersection for over 120 ICES, InterCity, EuroCity and InterRegio connections in all directions every day. From there, you can reach Messe Essen in just five minutes with the U11 underground railway route. Destination stops: "Messe Ost/

Grugahalle" (East entrance) as well as "Messe West-Süd/Gruga" (West entrance).

Arriving by Airplane

Düsseldorf Airport is just 20 minutes' drive away from the fair site. With over 500 take-offs and landings every day, it offers flight connections to over 170 cities at home and abroad. Messe Essen's own Info Counter is located in the centre of the Arrivals level in Terminal B.

Airport Express Between Düsseldorf Airport and the Fair

During the period, a shuttle express will alternate between Düsseldorf Airport and the fair site. On all the days of the fair, the Airport Express Bus will depart from Bus Platform 2 on the Arrivals level in front of the hall in Terminal A/B every 30 minutes. The travel time will be approx. 20 minutes. A one-way ticket will cost Euro 15 and a return ticket Euro 25.

Parking All Around the Fair Site

For guests with cars, Messe Essen will offer around 5,000 parking spaces close to the fair as well as another 7,000 parking spaces in the P+R system and a modern parking guidance system. For disabled people, sign posted parking areas will be available in the immediate area of the fair. These will be located in the close proximity of the East, South and West entrances. A detailed overview of the parking spaces and further travel information for disabled people are available online.

Further information relating to all aspects of your visit to the fair at: www.ipm-essen.de as well as www.messe-essen.de.



IPM ESSEN 2017: World's Leading Fair for Horticulture

The Netherlands are the Partner Country and the Innovation Showcase is Celebrating an Anniversary

From January 24 to 27, 2017, the international green sector will be guests at Messe Essen. IPM ESSEN will portray the entire value added chain of plant production: Around 1,600 exhibitors from 50 countries will show their innovations in the Plants, Technology, Floristry and Garden Features areas. The signs are on course for success: All the market leaders have confirmed their participations. In particular, the official national booths are registering growth. The Innovation Showcase will celebrate its tenth anniversary and will be one of the highlights of the extensive supporting programme. Furthermore, the 35th world's leading fair for horticulture will have a partner country: the Kingdom of the Netherlands.

IPM ESSEN is well-known for its high internationality on both the exhibitor and visitor sides. In 2017, the international joint booths will be supplemented by another country, i.e. Japan. Bonsai will be on display. Belgium will occupy three exhibition areas for the first time. India has booked additional area. Other national participations will come from China, Costa Rica, Denmark, Great Britain, France, the Netherlands, Israel, Italy, Portugal, Poland, Spain, Sri Lanka, South Korea, Taiwan, Turkey, Hungary and the USA.

Kingdom of the Netherlands is the Partner Country

IPM ESSEN 2017 will be characterised by the partner country, the Netherlands. The motto will be: "Two Countries, One Passion". For years, the world's leading fair for horticulture has been an important presentation platform for the green sector in Germany's neighbouring country - Around 400 Dutch exhibitors will present their expertise and networks in 2017. The International Horticultural Forum will also deal with Dutch horticulture and will invite



visitors to a discussion on January 26.

IPM ESSEN: The Fair of Innovations and Trends

IPM ESSEN will be characterised by innovations and trends. Plants of all kinds and in all forms will be presented - no matter whether ornamental plants, vegetable plants, cut flowers, shrubs, trees or perennial plants. According to the projection, over 68,000 different plant breeds will be on show - a lot of them will be world premieres. Numerous competitions will acknowledge the innovative force of the sector: The Innovation Showcase will celebrate its tenth anniversary in 2017. All the exhibitors at IPM ESSEN are being called upon to submit their plants in the following categories: Spring-Flowering Plants, Bedding and Balcony Plants, Tub Plants, Flowering House Plants, Green House Plants, Cut Flowers as well as Woody Plants. An expert jury will honour the most outstanding new breeds on the day before the fair. The winners will be announced on the opening day. For the first time, there will be a public prize at IPM ESSEN 2017 in addition. The visitors will be allowed to choose their favourites during the period of the fair, just as also in the case of the Show Your Colours Award in which perennial and woody plants with significant values

added and extraordinary stories will be distinguished.

Vegetable Cultivation Technology with a Strong Presence in 2017

From irrigation installations and packaging machines via fertilisers and substrates right up to greenhouses and sales counters - The world's leading fair for horticulture will yield the newest technological trends. In 2017, IPM ESSEN will address not only horticulture but also vegetable cultivation to a greater extent. This new feature will also be reflected in the invitation to compete for the IPM Innovation Award

organised by the Representation of interests of the German horticulture industry (INDEGA). New products or technical innovations for the regional or supraregional production of vegetables will be distinguished. The victor will be announced on the first day of the fair.

Floristry on the Highest Level and Hip POS Presentations

Moreover, IPM ESSEN will be an international trendsetter in the Floristry area. Flowery inspirations, new ideas and innovative floral designs for successful marketing in the specialised flower trade will be presented, for example, by the big live shows in the FDF World. National and international stars on the floristry scene will introduce themselves on the event stage of the Trade Association of German Florists (FDF) in the Green City in Hall 1A. The FDF World will be the meeting place for florists from all over the world at IPM ESSEN. Also in the Green City, the specialised trade will find new flowery marketing concepts on the areas of FDF and Bloom's as well as in the g&v Creative Centre. The green associations will be available for the exchange of specialist opinions in the Horticultural Info Centre in Hall 1A.

Further information: www.ipm-essen.de

IFTF Ready for the Next Level

Overall results of the 7th edition of IFTF can be concluded as fully satisfactory. According to exhibitors the trade fair was well attended. Especially the first and last day the aisles were very crowded. Almost 25,000 national and international visitors were counted at the fair that consisted this year of 276 national and international exhibitors. Although the number of visitors went down with about 7.5%, the quality was high according to exhibiting companies.

Positive comments were also received from attending visitors that were impressed by the quality of stands, designs and flowers on display.

Although weather conditions contributed positively to the number of visitors, a light negative influence could be noted because of the fair dates being so close to All Saints' day and All Souls' day. This might likely explain why the numbers were a bit down this year, especially from visitors from

Spain, Germany and France, according to the organizers.

It has been agreed between the management of both fairs RFHTF and IFTF that the dates for next year will be moved forward with a week, i.e. from Wednesday November 8 to Friday 10, since otherwise the dates of All Saints' day and All Souls' day would even partly overlap the dates of both fairs in 2017.

Kenya Well Represented



Rosa Eklund of Roses Forever from Denmark poses with the director of Mzurri Flowers from Kenya. Eklund is specialized in breeding garden roses and potted roses. In 1998 she started to breed cut roses and spray roses. Since a year some of her varieties are commercially grown by Mzurri. The roses contain 'blood' from garden roses and mini roses.



One of the exhibitors at IFTF is Batian Flowers from Kenya. Batian expanded the production of alstroemeria to 14ha and will in future increase the area of alstroemeria to 20ha. Alstroemeria is Batians biggest product right now. Besides alstroemeria Batian grows rose (10ha), spray roses, chrysanthemum (3ha) and freesia. Batian exports flowers to 60 countries.



Juliet Kiboro-Kamuyu of Wilfay Flowers. Wilfay grows summerflowers like limonium, gypsophyla, zantedeschia, anigozanthos, hypericum, phlox and bupleurum and ammi on 20 hectares in Subukia. Wilfay also grows cymbidium on trial.



Hanif Chaudry of Isinya Roses shows the size of the buds of his roses. One of the farms of Isinya is located at a high altitude of 2865 meter in Kenya near the Tanzanian border.

Arysta LifeScience

Launches Two New Products For ornamentals



Group photo for growers and staff members who attended the launch

Expectations filled the air as one of the biggest chemical companies in the world, Arysta LifeScience, launched a Nematicide for the control of parasitic nematodes and a speciality plant nutrient based on natural hydrolysed proteins.

Time almost audio recorded voice of Mr. Richard Gitonga, the Regulatory and Development Manager-East Africa asked, Are you concerned by the ever increasing threat of resistance build up on Nematicides? Are you concerned of regulation of hormonal activity, settlement of stress situation, balanced nutrition and uptake improvement of microelements? Each of these questions received a resounding “yes” from the growers in attendance. “Today I stand in front of you to offer you solutions, Metafur 900 EC and Siapton”, he said

Welcome Metafur 900EC Bye... Bye... Plant Parasitic Nematodes on Ornamentals

Growers preparing their Nematodes treatment programs will have many options to choose including the newly launched Metafur 900 EC. It was pomp and dance in a Naivasha

hotel as Arysta Lifescience unveiled their new contact nematicide with activity against nematodes. The contact nematicide has furfural and other metabolites 900g a./litres as the active ingredient and targets plant parasitic nematodes. The powerful and effective nematicide against wide range of nematodes is semi systemic, has no withholding period and leaves no harmful residue in the soil or plant after application.

Mode of Action

Metafur 900 EC is a semi systemic nematicide with a contact activity and stomach action (ingestion). Nematodes are known to pierce the epidermis and cortex of the root which are exposed to the soil. This gives direct exposure of the nematode to the active ingredient which reacts directly with the cuticle of the nematode. Low concentrations damage the cuticle of the nematode and secondary effects immobilize and kill the nematode

Characteristics

Metafur 900 EC is a semi-systemic nematicide with movement within the roots. The Liquid Emulsifiable Concentrate of Furfural and natural metabolites all contribute to the product efficacy. It can be applied at planting

and post planting, during the season. It is a non volatile formulation which increase its safety and has favourable toxicological profile compared to existing nematicides. The product has been extensively tested and performs comparatively better than existing nematicides.

Advantages

Metafur 900 EC is natural by-product of Sugarcane hence organic & biodegradable. It leaves no harmful residue on the plant or in the soil as it kills harmful nematodes and is effective against free living nematode. It can be applied throughout the growing season with multiple applications where possible and is less toxic relative to other products

Application

It is advisable to start the first application at planting with a post plant application where possible. The product can be applied through drip/trickle irrigation systems when you commence watering to moisten soil. It is advisable to inject METAFUR 900 EC in irrigation system as long as possible (minimum ½ hour). Thereafter, flush system with water to ensure no residues remain in the system.

Siapton: A Speciality Plant Nutrient.

During the same meeting, Arysta Lifescience discussed Siapton, a speciality plant nutrient based on natural hydrolysed proteins which is applied either foliar or through the root system. An organic bio-stimulator of natural origin,

with a high content of perfectly balanced free amino acids and peptides. It regulates the hormonal activity; settles stress situations, balance nutrition and improve the uptake of microelements.

Benefits

The product improves yield levels (quantity and quality) and mitigates yield losses under stress conditions (salinity, extreme temperatures, drought, etc.) especially in conjunction with critical plant developmental stages (i.e. flowering and/or fruit set and growth)

Mode of action

Amino acids and peptides are quickly up-taken by leaves, roots, and stems. The transportation within the plant is very quick reaching the young tissues as preferential targets, growing points and flowers. Uptake and transportation are linked to crop physiological state. Within the plant, amino acids and peptides are suitably transformed into other amino acids, proteins, carbohydrates, and organic acids, according to plant's specific requirements.

Results

No limits for Siapton. Fruits and Vegetables, Top fruits, Arable Crops, Ornamentals show impressive responses. Proven results are available from a number of countries and crops world wide, in highly variable environmental conditions. That is because Siapton acts through metabolic mechanisms belonging to the entire plant.

Booster: in the vegetative growth stage it improves plant size (bigger leaf, dark green, strong plant).

Antistress: it helps the plant to overcome abiotic stress (temperature stress, salinity stress, wind stress, water stress). Reducing



Mr. Muiru of Elgon Kenya discuss with growers

stress from salinity

Compatibility

Siapton is compatible with most regularly applied liquid fertilizers and chelates. It improves the efficacy and a fast absorption. It is compatible with most commonly used agrochemicals with the exception of: mineral oils sulfur and copper products.

It is always recommended not to apply Siapton in extreme hot temperatures or during flowering and is compatible with most regularly applied liquid fertilizers and chelates. Thanks to his high concentration of amino acids it improves the efficacy and a fast absorption of chemical fertilizers

Conclusion

Siapton is a recognised worldwide top biostimulant for a number of crops under their variable environments.

Fungafloor: For Powdery and Botrytis on Ornamentals

Mr. Gitonga also asked growers to continue using Fungafloor. The broad spectrum fungicide has a preventive and curative treatment against mildew and excellent activity against botrytis. The fully systemic product has Imazalil as the active ingredient and targets all plants parts when sprayed. With a one

day Pre-harvest interval, the product has no residual effects on beneficial insects and bees.

Mode of Action

Imazalil is a systemic fungicide from the group of N-substituted imidazoles. Members of this chemical class affect the cellular permeability barrier of the fungi. The fungitoxic action of imazalil on fungi may also involve the inhibition of the cell membrane functions. Uptake and membrane effects noted in several studies suggest that imazalil inhibits ergosterol biosynthesis in fungal cells.

Under natural conditions, the probability of the development of resistant strains of fungi is much lower with the polygenic system of imazalil than with the oligogenic system of the benzimidazole type fungicides. Most probably, occurrence of resistant strains to imazalil under field conditions is an extremely rare phenomenon which must involve 21 genes on 8 loci, linked with 6 groups (Laville et al., 1977; van Tuyl, 1977).

Characteristics

He said, Fungafloor has a Novel Mode of action and does not inhibit sporulation or spore germination. It inhibits elongation and subsequent penetration of germination tube into plant tissues and has no cross resistance against other conventional fungicides is unlikely to occur (FRAC class: 3 G1).

Conclusion

Most of those who attended were happy of the new products and promised to use them.



Biobest NV Set to Acquire Real IPM Kenya Ltd.

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

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

Henry Wainwright adds: “I will continue on as General Manager of Real IPM Kenya for the next two years to ensure continuity and a seamless transition. I am sure this transaction creates opportunities for my team to further realize its potential as well as for Biobest to successfully contribute to sustainable farming in Africa. Our existing and future customers and distributors will benefit from the synergies represented in this alliance.”

Jean-Marc Vandoorne, CEO of Biobest,



comments: “Our goal is to serve the needs of growers on a worldwide basis in our strategic crops. East and Southern Africa is a hotspot for floriculture and horticulture, but also for citrus and other open field crops. With Real IPM Kenya we immediately play in the premier league in this part of the world. We very much respect the position the company has built and are therefore grateful that Henry is prepared to continue to take the helm. We are confident that we can help develop Real IPM’s product offering based on our own product portfolio and R&D pipeline. Together we can bring even

more complete and more effective solutions, in line with the needs of the African farmer. The product portfolio of Real IPM Kenya, and its partner company Real IPM UK, is also complementary to ours in other markets. Finally, it is a major competitive advantage to have a strong production infrastructure in East Africa. Local customers enjoy good quality and competitive prices in view of the excellent production conditions for biocontrol agents in this region. That explains why it is really difficult to be strong in the local market without local production.”

Flower Expo Ukraine welcomes Subati Group from Kenya



Subati Flowers is a grower and exporter of over 100 varieties of spray and single head roses. Their farms are located in Northern Kenya on the slopes of the Great Rift Valley.

The roses are grown in greenhouses spanning 85 hectares at an altitude of 2,200m above sea level, giving rise to high quality T-Hybrid roses. Subati exports over 60 million stems a year to 25 different countries around the world.

Kenya earns 20% more from hort exports

Kenya’s earnings from horticulture exports rose by 20 percent to 77.81 billion shillings (\$766 million) in the first nine months of 2016 from a year earlier, the country’s statistics office said.

The data from the Kenya National Bureau of Statistics showed flower exports contributed 53.88 billion shillings, or 69 percent of the earnings, with the rest coming from the export of fruits and vegetables.

Horticulture is a key foreign exchange earner alongside tea, remittances from Kenyans living abroad and tourism.

Exports of flowers, fruits and vegetables earned Kenya a total of 90.44 billion shillings in 2015.

Kenya Wants Direct Flights to Latin America



Lack of direct flights to Latin America has hampered Kenya's quest to sell its horticultural produce in South American states.

Kenya's flowers are re-exported to Brazil from other European nations, denying farmers handsome returns on their produce.

Trade principal secretary Chris Kiptoo said that there is a need for Kenya and Latin America to work towards establishing direct flights to the region.

"Our produce cannot access the Latin America market directly for lack of direct flights between the two continents but we are trying to work out something to establish one," said Dr Kiptoo.

Dr Kiptoo, who was speaking during an international business summit in Nairobi between Kenya, Latin America and the Caribbean countries, said Kenya is seeking to bypass Europe and sell its flowers directly to these nations.

Currently, Latin America gets its flowers from the Netherlands auction, which imports Kenyan produce for resale to Latin and Caribbean countries.

"We want to use these negotiations to increase

our trade ties with Latin America and one of the things that we are looking at is seeking direct sale of our flowers to these countries," said Dr Kiptoo.

Dr Kiptoo noted that Kenya has minimal trade with LAC countries because of poor connectivity.

Last year, Brazil said it was ready to allow Kenya Airways to start direct flights to the South American country but the process was delayed by Kenya's failure to ratify a 2010 agreement reached between the two states.

The Brazilian envoy said that she was not certain if Kenya's enthusiasm for non-stop flights was intact given that the MoU had taken so long to be ratified.

Regionally, it is only Ethiopian Airlines and South African Airlines that fly to Brazil with stopovers in their respective capital cities as well as Rome and Sao Paulo before landing in Rio De Janeiro.

Brazil remains Kenya's biggest export trading partner in Latin America in terms of total trade value.

Dr Kiptoo also noted that there is inadequate representation to LAC countries with only one embassy in Brazil that covers Argentina, Chile, Colombia and Venezuela.

Tenth anniversary of Koppert Kenya

Ten years ago, Koppert Kenya was established with the objective to consistently deliver reliable systems, based on top quality products to local growers and help them improve their crop protection systems. The company's guiding mission at the time was: "To be the most preferred partner in developing and marketing pollination systems and integrated pest management for protected and high-value crops, by being a reliable provider of innovative, effective and top-quality solutions". Koppert set off to understand its clients' needs in order to better meet them. Although Koppert was a late entrant into the Kenyan market, growers gradually adopted their innovative systems and products. Today, Koppert is the preferred supplier of biological crop protection solutions in region.

From humble beginnings

The world has changed a lot in the past 10 years. In 2006, Integrated Pest Management (IPM) was a relatively unknown concept in some segments of the local market. Many growers were hesitant to venture into IPM due to the perceived complications associated with such a system. Under these circumstances, by sheer tenacity of purpose and a firm belief in the quality of Koppert products, Charles Macharia (general manager, Koppert Kenya), started the journey. "It was quite demanding, but I knew it was a humble beginning for greater things to come," he reported.

From the start, Koppert Kenya paid great attention to meeting customer needs through a flexible approach to IPM which growers had not experienced before. For instance, training for growers' staff was done free of charge for growers who adopted Koppert programs on their farms.

Building the system

In early 2007, the first products were registered as per statutory requirements. These were Spical (*Amblyseius californicus*) and Spidex (*Phytoseiulus persimilis*). With the two products now commercially available, Koppert launched a two-pronged spider mite IPM program. A few months later, another product – Swirski-Mite was successfully registered for the effective control of thrips and whitefly. Since then, the product range has grown to include numerous microbial, microbial, associated products, botanicals and seed-dressing products.

No Cause For Alarm

By the way, things have calmed down in Uganda. Things are now handled in the Netherlands; the Dutch Minister of Foreign Trade and Development Cooperation has requested the Embassy in Uganda to investigate the recent events.

Royal van Zanten employees entered a greenhouse that had just been disinfected and a week later, other employees entered a different Royal van Zanten greenhouse and came into contact with the remains of two eco-friendly products and a chemical agent.

Smit has been very disappointed about the way the two incidents were handled by all sorts of organisations and the media. The incidents got totally blown out of proportion - the Ugandan floricultural industry was accused of sexual harassment and slavery. Smit spoke with the union last week. "I asked them whether, during the 22 years that we have been here, there had ever been any reports of sexual harassment at our farms. And whether they had ever heard of us missing a single month's payment. The union could only negate these things."

Social impact

Smit also points out that last spring, someone from a NGO conducted a study into the social impact Royal van Zanten had on its environment in Uganda. "The outcome was very positive, we were portrayed as a good employer. We offer childcare, special employee loans, hospitals and free medical care. It was very disappointing to see how the media jumped on top of these incidents. A police spokesperson whose negative statements were quoted in the media, had never even visited any of our farms."

Smit acknowledges that the incidents shouldn't have happened. "We followed up on them, in accordance with all protocols, to ensure that these things wouldn't happen again. It's a shame that, while we're making a real effort, the story is completely taken out of context. I have been contacted via WhatsApp and phone calls, from 5.30 a.m. until 10 p.m. - completely outrageous. You can ask me anything about what it's like to be put in a bad light by the media. I've become an expert by now."



Cuttings are catching up with flowers in Uganda

Uganda's flower export has seen a slight drop in the past couple of years. However, as a cutting producing country, Uganda continues to maintain its importance. The Ugandan export value of cuttings has almost surpassed the export value of flowers.

Good quality cuttings

However, Uganda's constant climate does make it a very suitable location for the production of cuttings. The quality is good and production is high. The export value of cuttings was \$13.6 million in 2002 and this had gone up to \$29.7 million by last year.

The Ugandan export value of cuttings has thus almost surpassed their export value of flowers. Some of the companies based in Uganda, have their roots in the Netherlands: Wagagai, JP Cuttings, Xclusive Cuttings, Fiduga/ Dümme Orange and Royal Van Zanten.

The most important destination for cuttings is the Netherlands, followed at a great distance by countries like Norway, China, Germany, Canada, Austria, South Africa, Spain and Italy.

Feico Smit, managing director at Royal van Zanten Uganda, believes that there's a slight shift from Ethiopia to Uganda. In addition, the cutting producers in Uganda are expanding a little. Royal van Zanten produces cuttings for both cut and potted chrysanthemums, celosia, bouvardia and asters in Uganda. Musoke says that the Ugandan cutting production shows a stable growth, both in hectares and in volume

Japanese flowers try to conquer Europe

At IFTF in Vijfhuizen, Japanese export organisations are trying to increase their sales in Europe with their own assortment, which includes lathyrus, ranunculus, gentiana, gloriosa and lisianthus.

One of the attending Japanese companies is the Bloom Japan Network. This sales organisation, which was visiting IFTF for the first time, had been selling gentiana, lathyrus, ranunculus, gloriosa, oxypetalum and scabiosa from Japanese nurseries to European countries for a year. They hardly sold anything the previous years, because the prices were too low. This year is better, says Yutaka Shirakawa.

Asia remains Bloom Japan's biggest market, but Shirakawa indicates that the market for Japanese flowers is growing in the United States, Europe and the Middle East. At IFTF, Bloom Japan was exhibiting 120 varieties of 20 different flowers.

Shirakawa says that the types of flowers that are sold the most in Europe are gloriosa, lathyrus, ranunculus, gentiana and lisianthus. The Netherlands is the gateway to Europe for Japanese flowers according to Yutaka Shirakawa.

Gloriosa

The Japan Flowers and Plants Export Association exports flowers as well as plants (including bonsai) to Europe. "Gloriosa is very important for our export to Europe," says Kouji Ishiguro of Flower Auction Japan, which is part of this export organisation, supported by the Japanese Government.

Japan Flowers and Plants Association also considers the Netherlands as a gateway. The organisation has an agent in the Netherlands, who sells the Japanese flowers in other European countries as well. "In 2016, the export to Europe increased compared to the two previous years", says Ishiguro.

Gloriosa, exhibited at IFTF in various colours and with long, thick stems, is the most important product at the moment. According to Ishiguro, gloriosa is a good introduction to the European market for the Japanese products. "It positions us well".



Green trick

Breeder Miyoshi also exhibited at Vijfhuizen. The company cultivates brassica, green trick, matthiola, lisianthus, delphinium and more.

Director Seiichi Miyoshi pointed out that the flower industry in Japan was declining. The floricultural industry is ageing; many growers don't have anyone who can take over.

This means that the Japanese market is decreasing for Miyoshi. "Japan is our biggest market and we would like to expand there, but it's hard." Miyoshi's main customers outside

Japan are the big flower producing countries like Ecuador, Colombia, Kenya, Israel and the Netherlands.

Strong Partnership: Messe Essen and GreenExpo Sign Cooperation Contract

Optimally Oriented in Russia: International Plant Fairs Bundle Competence and Create Synergetic Effects

Strong cooperation promises good chances for the future: FlowersExpo, the most important sectoral platform in Russia, and IPM ESSEN, the world's leading fair for horticulture, will come together under the new fair title FlowersExpo powered by IPM ESSEN. From September 12 to 14, 2017, the trade fair in the Crocus Expo International Exhibition Centre in Moscow will show a cross section of subjects relevant to the sector. The partnership between Messe Essen and the Russian fair organiser GreenExpo will support German and international companies in extending business relationships on the Russian market.

FlowersExpo is the largest plant trade fair in the Eastern European region and an absolute must for specialists from Eastern Europe. In this respect, the trade fair which has been growing for years portrays the

entire value added chain in the green sector: from plant production and cut flowers via technology and floristry right up to the equipment at the point of sale.

Russia Still Important Sales Territory for EU Exports

In spite of political turbulences, the Russian market is proving to be crisis-proof and thus continues to be an important bulk buyer for green products: In particular, the demand for ornamental and pot plants as well as for cut flowers is growing steadily and cannot be met by domestic production. For international companies, it is all the more important to show their presence on the Russian market - As the leading meeting place of the green sector in Russia and Eastern Europe, FlowersExpo powered by IPM ESSEN will offer the perfect opportunity for this.

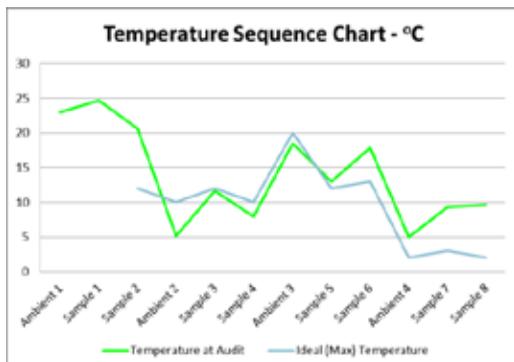
Technical Support Anytime, Anywhere

All Chrysal customers are entitled to **free of charge** technical support services.

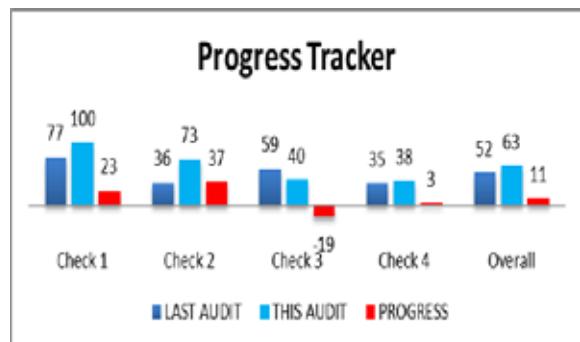
Chrysal Africa's Technical Consultants are available year-round to support all Chrysal customers in their post-harvest processing. The team has extensive combined experience in post-harvest processing, flower growing, soil and water analysis, water management and an excellent understanding of what it takes to be a grower in the region.

Travelling around East Africa to growers and bouquet makers, the team provides:

- **Private, personalised audits with progress tracking,**
- **On farm and off-farm training,**
- **Experienced support,**
- **Support for trials and R&D,**
- **Backup for trials and testing in Nairobi and Holland,**
- **Post-harvest water use management,**
- **Links to Buyers and Processors in Europe, the Americas, Australia and the Far East.**



Chrysal Africa's confidential audits cover post-harvest solution quality, hygiene, temperature and humidity, packaging and handling. Audit reports score each section, and provide a progress tracker so growers can track how well they are performing.



Chrysal Africa's technical team is integrated with that of Chrysal International to bring you the most up to date technical innovations and information from Australia and Japan through Europe to the Americas.

Trials and tests can be undertaken in Chrysal Africa and Chrysal International in Holland; further follow ups can be requested in each of these locations.

For any technical queries, support and information, the Chrysal Africa technical team is available to visit your farm, check your processes, recommend improvements, provide international backup networks and lend a hand when and where you need it the most.

For More information on our Services -

Contact us at:
info@chrysal.co.ke

Service at the highest level

'Chrysal is the world leader in cut flower care. To preserve this status and to remain innovative, we trial and develop new concepts and products for our customers. And that challenge is what makes our business so appealing!'

Chrysal's Technical consultant's (TC's) role is to support the Grower and Bouquet Maker to provide the best quality flower to their Customers. Chrysal's TC's knowledge is gained through in house experience supported by many diverse trials performed and registered by our own R&D department. Furthermore, we work with independent research stations and universities around the world, to validate our findings. The TC's can initiate and monitor research trials on site for customers.

Chrysal TC's work as an integrated team, but are focussed regionally or on an account-specific basis. A TC provides technical advice and support about the use and application of the Chrysal range of products, as well as offering additional technical services such as Technical Audits. To support them, Chrysal's Sales people are responsible for the prices, conditions and logistics.. Together they make a complete team to best serve our customers.

Our technical advice goes beyond recommendations on the best products for specific circumstances or crops. We also advise on how to dose, how long a treatment should be continued and how to check whether products are being applied correctly and in the most effective of manner.



Chrysal International is ISO and ETI (Ethical Trading Initiative) certified and also work in accordance with BRC (British Retail Consortium) standards. We strongly prefer our suppliers to work with these same standards; highlighting our principles that clearly shows that Chrysal operates with respect for our suppliers, customers and other stakeholders.

Auditing is also an important aspect of our services, where we analyse different aspects of an organization. During an audit we look at the hygiene levels, the proper use of post-harvest treatment products, logistics and general organisation of the post-harvest procedure. We present all the results in a report with conclusions and recommendations on how to improve overall quality.

The technical services we offer are provided by our global network of technical consultants and agronomists. Our network enables us to follow the flower and plant's condition while they are being transported, packed and sold, often passing through numerous countries.

With this knowledge and service, we always look to help our clients guarantee optimal quality from grower to the consumer!

Dümmen Orange Introduces New White Rose



"SnowStorm+ is a force of nature, packed into a white rose with amazing strength. Outstanding transport qualities, commanding presence, available now for all your powerful arrangements." That's how Dümmen Orange describes the new rose they introduced at the IFTF.

"SnowStorm+ offers premium flower power in a white rose with a firm bud (size 4.5-5 cm) and an excellent storage life. Its strong petals show no bruising after transport, which is unique and extraordinary for white roses. It is how

SnowStorm+ earned its nickname: The Power Rose."

Vigorous white rose

SnowStorm+ is created by hybridizer Dümmen Orange. The rose has been intensively tested by specialized rose farm Oserian. The promising results led to commercial planting on 1.5 ha. More SnowStorm+ roses are planted every week. SnowStorm+ is exclusively available per Dutch Flower Group (DFG).

Dutch breeder introduces new roses

Rose breeder United Selections introduces two new cut roses: Sankara and Adorable. The two new varieties will be supplied at the Royal FloraHolland auctions. Sankara has a length of 50-80 cm and a head size of 5.0-6.0 cm. The vase life is according to United Selections more than 15 days. Sankara suits to

growing areas such as Africa, Asia, Latin America and Middle East. Adorable has a length of 50-90 cm and a head size of 6.0-6.5 cm. The vase life of Adorable should be 10-12 days. As growing areas for this new variety are mentioned Africa, Latin America and Middle East.



Red rose Toro Rosso introduced by TimaFlor

Timaflor auctioned for the first time their new premium red rose Toro Rosso at Royal Flora Holland Aalsmeer on Monday 7th of November. Together with Lolomarik, Timaflor planted 4 hectares in Timau, Kenya and will supply length 40 to 80 cm on a daily basis. Fresco Flowers - located in Aalsmeer- takes care of the unpacking, control and sales of Toro Rosso.

Toro Rosso has a bright red color, fewer thorns and an excellent vase life with a beautiful opening of the flower. With a bud height of 6 cm, Toro Rosso has an excellent presentation during sales and in the vase.



Torro Rosso is developed by Select Breeding in the Netherlands. Select Breeding is specialized in the development of medium and T-hybrid cut roses. For the potted plant growers, Select Breeding has a special range of luxury terrace roses.

BREEDERS BRIEFS

'Kordes' Garden Roses Favoured in Many Regions of the World'

World Federation of Rose Societies trial winners



The winners of the rose trials of the World Federation of Rose Societies are announced. In 20 regions spread over 14 countries all over the world, potted and garden rose varieties from different breeders have been trialed. The winners of the awards are listed below. Interesting to notice is the fact that German rose breeder Kordes is mentioned above average and the fact that many winning varieties were bred by the local breeders.

List of winners per country and region:

Australia - Adelaide

Eye Shadow (syn. Nabucco) (CHEwsumstar) - C. Warner of England.

Belgium

- Le Roelux

(VIScoal) - Vissers of Belgium

- **Kortrijk**: (KO 03/1781-09) - Kordes of Germany. (Golden rose of Kortrijk) (09-264) - ILVO of Belgium.

Kiss Me Kate (KORnagelio - KO 05-2591-07) - Kordes of Germany.

Madame Anisette (syn. Madame de la Vallière) (KORberonem - KO 04/1553-01) - Kordes of Germany.

Limona (KORmonali - KO 05/2376-01) - Kordes of Germany. (09-51) - ILVO of Belgium.

France

- Lyon

Perfume Cup (INTercomgarf)- Interplant of The Netherlands., (MR409)- Richardier of Meilland of France.

Mandarin (KORlisuha - KO 03/1075-02) - Kordes of Germany. The numerous,

Alizée (SAUrafun - SB 09.86) - Sauvageot of France.

Alaska (in Germany) (syn. Future) (KORjoslio - KO 05/2528-01)- Kordes of Germany.

- Saverne

(EVEcot) - Eve and Rateau of France.

- Paris (Bagatelle)

(EVEtricol) - Eve and Rateau of France.

Louis Blériot (MEIbivers) - Meilland of France.

Click here to view all the awarded varieties in this region.

Italy

- **La Tacita** - May 22, 2016

Köln Flora (KORmahensi - KO 03/1428-02) - Kordes of Germany.

- Rome

(KO 03/1781-09) - Kordes of Germany.
Rosiere de France (ADARosieref) - Adam of France.
White Angel (ADAdiamaq) - Adam of France.
(MR316) - Meilland of France.

Japan - Gifu

Le Ciel Bleu is a Shrub - Kimura of Japan.

Netherlands - The Hague

Sirius (RT 05415) - Tantau of Germany.
Brilliant Korsar (syn. Brilliant Corsair, Orange Flair) (KORtempora) - Kordes of Germany.
(DICalfa) - Dickson of Northern Ireland. (Not yet in commerce)
(B-07-0004-002)- Boot & De Ruitter of The Netherlands. (Not yet in commerce)

New Zealand

- Palmerston North

Quintessential (SOMhearteen) - Somerfield of New Zealand.

- Hamilton

Christchurch Remembers (SOMcrimart) - Somerfield of New Zealand.

Scotland - Glasgow

Sirius (TAN05415, RT 05415) - Tantau of Germany.(Golden Prize of City of Glasgow)
Prague (POUlcas043)- Poulsen of Denmark.

Spain - Madrid

(Y1439) - Velle of Lens Roses of Belgium. (Rose of Madrid)
(EVEtricol) - Eve and Rateau of France.

- Barcelona

(ADAPhyri) - Adam of France.
(Special Barcelona Award)

USA - Rose Hills

Doris Day - Bedard of USA. (Golden

Rose of Rose Hills)
Neil Diamond (WEKdereroro) - Carruth of USA.

- Asheville

Polar Express (syn. Gletscherfee, Perla Bianca) (KORblixmu - KO 98/1334-02) - Kordes of Germany.

Czech Republic - Hradec

Králové

Gräfin Diana - Kordes of Germany.

Germany , Baden-Baden

Marchenzauber (KORmarzau - KO 03/1750-01) - Kordes of Germany. (Golden Rose of Baden-Baden)
Marchenzauber (KORmarzau - KO 03/1750-01) - Kordes of Germany. (KO 07/3314-04) - Kordes of Germany.

Monaco

Mademoiselle Meilland (MEInostair)- Meilland of France.

Racquel (POUlnen023) - Poulsen of Denmark.

Philippe Colignon (LAPcoli) - Laperriere of France.

Rayon de Soleil (MEIlanycid - AM129) - Meilland of France.

Lizzy (TAN10553) - from Tantau of Germany.

Cream Meidiland (MEImeigea) - Meilland of France.

Esprit d'Amour (syn. Spirit of Love, Europa Nostra) (VISamalbi - VMX5050) - VIVA International of Belgium.

Georges Moustaki (FEgema) - Ferrer of Spain.

Belfast, Northern Ireland

Madame Anisette (syn. Madame de la Vallière) (KORberonem - KO 04/1553-01) - Kordes of Germany. (City of Belfast Award)

For more information

World Federation of Rose Societies

Email: info@worldrose.org

www.worldrose.org.

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- ◆ Excellent control against caterpillar pests
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FLOWER & VEGETABLE FARMS IN KENYA

FARM NAME	PRODUCT	LOCATION	CONTACT PERSON	TELEPHONE	E-MAIL
AAA- Flowers-Rumuruti	Roses	Rumuruti	Sailesh	0722 203750	-
AAA- Flowers -Chui Farm	Roses	Timau	Sailesh	0722 203750	-
AAA Growers	Vegetables/Flowers	Nairobi	Musa Sando	0787866022	sando@aaagrowers.co.ke
AAA-Chestnut		Narumoru	Kiai/Sando	0722944030	sando@aaagrowers.co.ke
AAA-Growers		Nakuru	Moses Sando	0787866022	sando@aaagrowers.co.ke
AAA-Hippo		Thika	Steve	0721778736	julius@aaagrowers.co.ke
AAA-Roses		Rumuruti	Julius Ruto	0720330039	turiagronomy@aaagrowers.co.ke
Acacia Farm-Sunripe		Naivasha	Antony	0711827785	naivasha@sunripe.co.ke
Africala		Limuru	-	0721-837968	sales@africalla.com
African Blooms	Roses	Nakuru	Ravindra	-	-
Afriscan Kenya Ltd	Hypericum	Naivasha	Charles Mwangi	-	-
Alani Gardens	Roses	Nakuru	Judith Zuurbier	0722 364 943	alani@alani-gardens.com
Aquila Development Co	Roses	Naivasha	Prakash Shinde	0710791746	pm@aquilaflowers.com
Bamboo Farm-Sunripe		Nakuru	Reuben	0723920237	-
Balaji	Roses	Olkalou	Paul Mwaniki	-	-
Baraka Farm	Roses	Nakuru	Lucy Yinda	0720554106	lucy@barakaroses.com
Batian Flowers	Roses	Nanyuki	Dirk Looj	0720102237	dirk@batianflowers.com
Beautyline	Flowers	Naivasha	Peter Gathiaka	0722676925	peter@beautyli.com
Bigot Flowers	Flowers	Naivasha	Kakasaheb Jagtap	0722205271	jagtap.kt@bigotflowers.co.ke
Bila Shaka Flowers	Roses	Naivasha	Joost Zuurbier	0722204489	bilashaka.flowers@zuurbier.com
Black Petals		Limuru	Nirzar Jundre	0722848560	nj@blackpetals.co.ke
Blissflora Ltd	Roses	Nakuru	Apachu Sachin	0789101060	appachu7@yahoo.com
Blue Sky		Naivasha	Mike	0720005294	info@blueskykenya.com
Blooming Dale Roses Kenya Ltd	Flowers	Nanyuki	Sunil	0718991182	info@bloomingdaleroses.com
Buds and Blooms		Nakuru	Shivaji	0720895911	shivaniket@yahoo.com
Carnation Plants	Roses	Athiriver	Ami R.	0733626941	amir@exoticfields.com
Carzan Rongai	Flowers	Nakuru	Nicholas	0721 844361	rongai.production@carzankenya.com
Charm Flowers	Flowers	Athiriver	Ashok Patel	020 352583	ashki@charmflowers.com
Colour Crops	Hypericum	Nanyuki	Vincent	0721652231	colourcrops@tmu.com
Colour crops	Flowers	Nakuru	Maina	0722578684	bahati@colourcrops.com
Colour crops Naivasha	Flowers	Naivasha	Geoffrey Mwaura	0722200972	nva@colourcrops.com
Credible Blooms	Flowers	Rumuruti			
Credible Blooms	Flowers	Ngong			
Dale Flora					
Delemere Pivot		Naivasha	Daniel Ondiek	0720395963	daniel.ondiek@vegpro-group.com
Desire Flowers	Flowers	Isinya	Rajat Chaoohan	0724264653	rajatchaoohan@hotmail.com
De ruiters	Breeder Roses	Naivasha	Fred Okinda	0722579204	Fred.okinda@deruiter.com
Double Dutch	Cuttings	Naivasha	James Opiyo	0723516172	Opiyojames160@gmail.com
Dummen Orange	Flowers Breeders	Naivasha	Steve Outram	0733 609863	s.outram@dummenorange.com
Elbur flora	Roses	Nakuru	Daniel Moge		
Enkasiti Thika	Flowers	Thika	Tambe	0734256798	enkasiti@gmail.com
Equinox	Flowers	Nanyuki	Tom Lawrence	0722312577T	tom@equinoxflowers.com
Everflora Ltd.	Flowers	Thika	Bipin Patel	0735873798	everflora@dmbgroup.com
Fairy Flowers	Flowers	Limuru	Sylvester	0753444237	sylvesterkahoro@yahoo.com
Fides Kenya Ltd	Cuttings	Embu	Francis Mwangi	068-30776	francis.mwangi@dummenorange.com
Flamingo Holdings Farm	Flowers	Naivasha	Peter Mwangi	0722204505	peter.mwangi@flamingo.net
Flamingo Holdings-Kingfisher Farm	Flowers	Naivasha	Charles Njuki	0724391288	charles.njuki@flamingo.net
Flamingo Holdings- Kingfisher Farm	Flowers	Naivasha	Jacob Wanyonyi	0722773560	jacob.wanyonyi@flamingo.net
Flamingo Holdings-Siraji Farm	Carnations, Roses	Nanyuki	John Magara/Peris	0729050116	peris.ndegwa@flamingo.net
Finlays -Kericho	Flowers	Kericho	Elijah Getiro	0722873539	elijah.getiro@finlays.co.ke
Finlays -Tarakwet	Flowers	Kericho	Japheth Langat	0722863527	japhet.langat@finlays.co.ke
Finlays Chemirel	Flowers	Kericho	Aggrey Simiyu	0722601639	aggrey.simiyu@finlays.co.ke
Finlays- Lemotit	Flowers	Kericho	-	-	-
Flamingo flora	Roses	Njoro	Sam Nyoro	0721993857	s.ivor@flamingoflora.co.ke
Flora ola	Roses, Hypericum	Solai-Nakuru	Wafula Lucas		floraolaltd@gmail.com
Flora Delight		Kiambu/ Limuru	Marco	0710802065	marcovansandijk@yahoo.com
Florensis Ltd	Cuttings	Naivasha	Anne Marie		annemarie@florensis.co.ke
Florenza	Roses	Nakuru	Yogesh	0715817369	



FLOWER & VEGETABLE FARMS IN KENYA

FARM NAME	PRODUCT	LOCATION	CONTACT PERSON	TELEPHONE	E-MAIL
Fontana Ltd-Salgaa	Roses	Nakuru	Kimani	0733605219	production@fontana.co.ke
Fontana Ltd	Roses	Nakuru	Girrish Appana	0726089555	production@fontana.co.ke
Fontana Ltd - Akina farm	Roses	Nakuru	Arfhan	0722 728441	arfhan@fontana.co.ke
Fontana Ltd - Ayana Farm	Roses	Nakuru	Gideon Maina	0721 178974	gideon@fontana.co.ke
Fox Ton Agri		Naivasha	Jim Fox	0722204816	jim@foxtonagri.com
Frigoken K Ltd	Vegetables	Nairobi	Nicholas Kahiga	0722797547	nicholas.kahiga@frigoken.com
Gatoka Roses	Roses	Thika	-	-	-
Gladioli Ltd		Naivasha	Pieriguichi / Claudia	0722206939	torres.palau@yahoo.com
Golden Tulip	Roses	Nakuru	Mne	-	-
Golden Tulip (Laurel Inter.)	Roses	Nakuru	-	-	-
Gorge Farm		Naivasha	Patrick Mulumu	0722498267	pmulumu@vegpro-group.com
Groove	Flowers	Naivasha	John Ngoni	0724448601	grovekenya@gmail.com
Harvest / Manjo Plants	Roses	Naivasha	-	-	-
Harvest Ltd	Roses	Athiriver	Jairus Oloo	-	-
Highland plantations	Cuttings & Herbs	Olkalou	Amos Mwaura	0726726392	production@highlandplants.co.ke
Imani Flowers	Flowers	Nakuru	Moses	0722977214	
Indu Farm		Naivasha	Wesley Koech	0715546908	
Indu -Olerai Farm		Nakuru	Everline Debonja	0723383160	everlyne.adhiambo@indu-farm.com
Interplant Roses	Roses	Naivasha	Gavin Mouritzen	0733220333	info@interplantea.co.ke
Isinya	Flowers	Isinya	Rajesh	-	pm@isinyaroses.com
Jatflora		Naivasha	James Oketch	0724418541	jatflora@gmail.com
Jesse AGA		Mweiga	Thuranira	0754444630	davidt@eaga.co.ke
Karen Roses	Flowers	Nairobi	Peter Mutinda	0723353414	pmutinda@karenroses.com
Kariki Ltd.	Flowers	Thika	Samwel Kamau	0723721748	production@kariki.co.ke
Kariki Ltd - Bondet	Eryngiums	Nanyuki	Richard Fernandes	062-31023/6	bondet.production@karik.biz
Kariki Ltd - Hamwe	Hypericum	Naivasha	Peter Kamwaro	0721758644	hamwe.fm@kariki.biz
Kariki Ltd - Hamwe- Molo	Fowers	Nakuru	Joseph Juma	0725643942	production.fm@kudenga.co.ke
Twiga Flowers	Flowers	Naivasha	pius Kimani	0721747623	pius.kimani@gmail.com
Kenflora Limited		Kiambu/ Limuru	Abdul Aleem	0722311468	info@kenflora.com
Kentalya		Naivasha	Linnat	0733549773	lynette@kentalya.com
KHE		Nanyuki	Elijah Mutiso	0722254757	mutiso@khekenya.com
Kisima Farm	Roses	Timau	Martin Dyer	0722593911	martin@kisima.co.ke
Kongoni River Farm-Gorge Farm	Roses	Naivasha	Anand Patil	0728608785	anand.patil@vegpro-group.com
Kongoni River Farm - Liki River	Flowers	Nanyuki	Madhav Lengare	0722202342	madhav@vegpro-group.com
Kongoni River Farm - Star Flowers	Flowers	Naivasha	Dinkar	0789487429	dinkar@vegpro-group.com
Kongoni River Farm - Timau	Flowers	Timau			
Korongo Farm		Naivasha	Macharia	0721387216	
Kreative	Roses	Naivasha	Bas Smit	0722 200643	info@kordesroses.com
Lamorna Ltd	Roses	Naivasha	Mureithi	0722238474	admin@lamornaflowers.com
Lathyflora		Limuru	Mbauni John	0721798710	mbaunij@yahoo.com
Lauren International	Flowers	Thika	Chris Ogutu/Carlos	0722783598	laurenflowers@accesskenya.co.ke
Livewire	Hypericum	Naivasha	Esau Onyango	0728606878	management@livewire.co.ke
Lobelia Ltd/ Sunland	Roses	Timau	Peter Viljoen	0721632877	info@lobelia.co.ke
Lolomarik	Roses	Nanyuki	Topper Murry	0715 727991	topper@lolomarik.com
Loldia Farm		Naivasha	Gary/Rotich	0720651363	
Longonot Horticulture		Naivasha	Chandu	0724639898	chandrakant.bache@vegpro-group.com
Longonot Horticulture		Naivasha	Patrick Mulumu	0722498267	patrick.mulumu@vegpro-group.com
Magana	Roses	Nairobi	Lukas	0788695625	farmmanager@maganaflores.com
Mahee / Mwanzi Flowers Ltd	Roses	Olkalou	Srinivasaiah	0711368756	sri@eaga.co.ke
Mahee Wilham	Vegetables	Nakuru	Missire	0754444629	maheevf@eaga.co.ke
Maridadi Flowers	Flowers	Naivasha	Jack Kneppers	0733333289	jack@maridadiflores.com
Maua Agritech	Flowers	Isinya	Madan Chavan	0738669799	production@mauaagritech.com
Mauflora	Roses	Nakuru	Mahesh	0787765684	mahesh@mauflora.co.ke
Milmet/Tindress Farms	Flowers	Nakuru	Pravin		pravinyadav.29@gmail.com
Molo Greens	Flowers	Nakuru	Justus Metho	0722 755396	justus@mologreens.com
Mt Elgon Flowers	Roses	Eldoret	Bob Anderson	0735329395,	bob@mtelgon.com



FLOWER & VEGETABLE FARMS IN KENYA

FARM NAME	PRODUCT	LOCATION	CONTACT PERSON	TELEPHONE	E-MAIL
Mweiga Blooms	Flowers	Nanyuki	Stewart/ Mburu	0721674355	mweigablooms@wananchi.com
Mzuurie Flowers - Maji Mazuri	Flowers	Eldoret	Wilfred Munyao	0725848912	wmunyao@majimazuri.co.ke
Mzuurie Flowers - Molo River Roses	Flowers	Nakuru	Andrew Wambua	0724256592	awambua@moloriverroses.co.ke
Mzuurie Flowers - Winchester Farm	Flowers	Karen	Raphael Mulinge	0725848909	rmulinge@winchester.co.ke
Mzuurie Flowers - Bahati	Flowera	Bahati			
Nini Farms	Roses	Naivasha	Philip Kuria	0720611623	production@niniitd.com
Nirp East Africa	Roses	Naivasha	Danielle Spinks	0702685581	danielles@nirpinternational.com
Ol Njorowa	Roses	Naivasha	Charles Kinyanjui	0723986467	mbegufarm@iconnect.co.ke
Olij Kenya Ltd	Roses	Naivasha	Sally Nicholas	0737888028	v.bhosale@olijkenya.com
Oserian	Flowers	Naivasha	Musyoka Stephen	0722888377	stephen.musyoka@osarian.com
Panda Flowers	Roses	Naivasha	Chakra	0786143515	chakra@pandaflowers.co.ke
Panocol International	Roses	Eldoret	Mr. Paul Wekesa	0722748298	paul.wekesa@panocol.co.ke
Penta	Flowers	Thika	Tom Ochieng	0723904006	-
United Selections	Roses	Nakuru	-	-	-
Pj Dave	Flowers	Isinya	Simiyu	0723500049	pjdavetimau@pjdaveepz.com
Pj Flora	Flowers	Isinya	Palani Muthiah	0752607651	muthiah.palani1971@gmail.com
Pj Flowers Ltd		Kiambu/Limuru	Elizabeth Thande	0722380358	elizabeth@wetfarm.co.ke
Plantation Plants	Cuttings	Naivasha	William Momanyi	050 20 20282	pplants@kenyaweb.com
Porini Ltd	Flowers	Nakuru	Pitambar Ghahre	0726774955	porini@isinyaroses.com
PP Flora	Roses	Nakuru	Robert /Prakash	0718045200	ppflora2010@gmail.com
Primarosa Flowers Ltd	Flowers	Athi RiVer	Dilip Barge	0731000404	dilip@primarosaflovers.com
Primarosa - Zuri Farm	Roses	Oljororok	-	-	-
Racemes Ltd		Naivasha	Bonny	0721938109	bonny@kenyaweb.com
Rain Forest	Roses	Naivasha	-	-	-
Ravine Roses Flowers	Flowers	Nakuru	Peter Kamuren	0722205657	pkamuren@karenroses.com
Redland Roses		Thika	Aldric Spindler	0733603572	aldric@redlandsroses.co.ke
Redwing Flowers	Flowers	Nakuru	Simon Sayer	0722227278	sayer@redwingltd.co.ke
Rift Valley Flowers Ltd	Flowers	Naivasha	Peterson Muchuri	0721216026	fm@riftvalleyroses.co.ke
Rimiflora Ltd		NaivaSha	Richard Mutua	0722357678	richard@rimiflora.com
Riverdale Blooms Ltd		Thika	Antony Mutugi	0202095901	rdale@swiftkenya.com
Roseto	Roses	Nakuru	Anand Shah		gm.roseto@megaspingroup.com
Rozzika Gardens –Kamuta Farm		Naivasha	Mbuthia	0721849045	jwachiram@yahoo.com
Savannah international	Geranium	Naivasha	Ignatius lukulu	0728424902	i.lukulu@savanna-international.com
Selecta Kenya		Thika	Alnoch Ludwig	0738572456	l.allnoch@selectakenya.com
Soljanmi	Fowers	Njoro	-	-	-
Schreus	Roses	Naivasha	Haiko Backer		
Shades Horticulture	Flowers	Isinya	Mishra	0722972018	info@shadeshorticulture.com
Shalimar Flowers	Flowers	Naivasha	Anabarasan	0733604890	anbarasan@eaga.co.ke
Sian Roses - Maasai Flowers	Flowers	Isinya	Andrew Tubei	0722728364	atubei@sianroses.co.ke
Sian Roses - Agriflora	Flowers	Nakuru	Clement Kipnetich		cmnetich@sianroses.co.ke
Sian Roses - Equator Roses	Flowers	Eldoret	Charles Mulemba	0721311279	cmulemba@sianroses.co.ke
Sierra flowers Ltd	Flowers	Nakuru	Sherif	0787243952	farm.sierra@megaspingroup.com
Simbi Roses		Thika	Karue Jefferson	067 44292	simbi@sansora.co.ke
Sirgoek Flowers	Flowers	Eldoret	Andrew Keitany	0715 946429	sirgeok@africaonline.co.ke
Solai Milmet/Tindress	Flowers	Nakuru	Ravindra	0788761964	tindressmilmet@gmail.com
Subati Flowers- Nakuru	Flowers	Nakuru	Naren Patel	0712 584124	naren@subatiflowers.com
Subati Flowers - Naivasha	Flowers	Naivasha	Naren Patel	0712 584124	naren@subatiflowers.com
Suera Flowers Ltd	Flowers	Nakuru	George Buuri	0724622638	gbuuri@suerafarm.sgc.co.ke
Sun buds	Hypericum	Naivasha	Reuben Kanyi	0723920237	kanyireuben@gmail.com
	Gypsophilla, Army				
Sunland Timau Flair	Roses	Timau	Peter Viljoen	0723383736	info@lobelia.co.ke
Stockman rozen	Roses	Naivasha	Julius muchiri	0708220408	julius@srk.co.ke
Tambuzi	Roses	Nanyuki	Paul Salim	0722 716158	paul.salim@tambuzi.co.ke
Syngenta Flowers - Kenya Cuttings	Flowers	Ruiru	James Ouma	0725217284	john.odhiambo@syngenta.com
Syngenta Flowers - Kenya Cuttings	Flowers	Thika	Kavosi Philip	0721225540	philip.munyoki@syngenta.com
Syngenta Flowers - Pollen	Flowers	Thika	Joseph Ayieko	0733552500	joseph.ayieko@syngenta.com
Timaflo Ltd	Flowers	Nanyuki	Simon van de Berg	0724443262	info@timaflo.com
Transebel		Thika	David Muchiri	0724646810	davidmuchiri@transebel.co.ke



FLOWER & VEGETABLE FARMS IN KENYA

FARM NAME	PRODUCT	LOCATION	CONTACT PERSON	TELEPHONE	E-MAIL
Tropiflora		Kiambu/Limuru	Niraj		tropiflora@africaonline.co.ke
Tulaga	Roses	Naivasha	Steve Alai	0722659280	tulagaflower@africaonline.co.ke
Tk Farm		Nakuru	Gichuki	0721499043	davidgichuki20@yahoo.com
Uhuru Flowers	Flowers	Nanyuki	Ivan Freeman	0713889574	ivan@uhuruflowers.co.ke
V.D.Berg Roses	Flowers	Naivasha	Johan Remeeus	0721868312	
Valentine Ltd		Kiambu/Limuru	Maera Simon	0721583501	simon.maera@valentnegrowers.com
Van Kleef Ltd	Roses	Nakuru	Judith Zuurbier	0722 364 943	judith@vankleef.nl
Vegpro K Ltd Vegetables		Nanyuki	John Kirunja	0729555499	john.kirunja@vegpro-group.com
Vegpro K Ltd	Vegetables	Nairobi	Judy Matheka	0721245173	jmatheka@vegpro-group.com
Vegpro K Ltd	Vegetables	Nanyuki	John Nduru	0722202341	jnduru@vegpro-group.com
WAC International	Breeder	Naivasha	Richard Mc Gonnell	0722810968	richard@wac-international.com
Waridi Ltd		Athiriver	P. D.Kadlag	0724-407889	kadlag@waridifarm.com
Wildfire	Flowers	Naivasha	Boniface Kiama	0722780811	roses@wildfire-flowers.com
Wilmar Agro Ltd	Summer Flowers	Thika	Alice Muiruri	072321203	alice.muiruri@wilmar.co.ke
Windsor		Thika	Vikash	073705070	alish@windsor-flowers.com
Xpression Flora		Nakuru	Mangesh Rosam	0720519397	mangesh.rasam@xflora.net
Zena -Thika Farm	Roses	Thika	-	-	sales@zenaroses.co.ke
Zena - Asai Farm	Roses	Eldoret	Emeritus Kasee	-	sales@zenaroses.co.ke
Zena Roses - Sosiani Farm	Roses	Eldoret	Phanuel Ochunya	-	sales@zenaroses.co.ke
Zena - Nakuru Farm	Roses	Nakuru	-	-	sales@zenaroses.co.ke

FLOWER FARMS IN UGANDA

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

FLOWER FARMS IN TANZANIA

TYPE	FARM NAME	CONTACT PERSON	LOCATION	PHONE NUMBERS	E-MAIL
Roses	Kili flora	Jerome Bruins	Arusha	255 27-25536 33	jbruins@habari.co.tz
Roses	Mt. Meru	Tretter	Arusha	255 27 2553385	office@mtmount-meru-flowers.com
Roses	Tengeru Flowers	Tretter	Arusha	255 27 255 3834	teflo@africaonline.co.tz
Roses	Hortanzia	Mr Micheal Owen	Arusha	255 784 200 827	hortanziagm@cybernet.co.tz
Hypericums	Kilimanjaro flair	Greg Emmanuel	Arusha	255 784 392 716	greg@kilimanjaroflair.com
Crysenthemums	Multi flower Ltd	Tjerk Scheltema	Arusha	255 27 250 1990	tjerk@arushacutting.com
Crysenthemums	Fides	Greg Emmanuel	Arusha	255 27 255 3148	fides@habari.co.tz
Crysenthemums	Dekker Bruins	Lucas Gerit	Arusha	255 27 255 3138	info@tfl.co.tz
Crysenthemums	Arusha cuttings	Tjerk Scheltema	Arusha	255 27 250 1990	tjerk@arushacutting.com



FLOWER FARMS IN ETHIOPIA

TYPE	FARM NAME	CONTACT PERSON	LOCATION	PHONE NUMBERS	E-MAIL
Roses	Linsen flowers	Peter Linsen	Holeta		Elinsenroset@ethionet.et
Roses	Hanjia	Holeta	0922 750602	Peter.Pardoen@karuturi.com	
Roses	Alliance flowers	Navale	Holeta		navele@nehainternational.com
Roses	Ethio dream Rishi	Holeta	Ethiopia	011 23 72335	holeta@jittuhorticulture.com
Roses	Holeta Roses Navale	Holeta	Ethiopia		navale@nehainternational.com
Roses	Supra Flowers	Kaka Shinde	Holeta	0911 353187	kakashind@rediffmail.com
Roses	Agriflora	M. Asokan	Holeta	0922 397760	flowers@ethionet.et
Roses	Ethio- Agricerft	Alazar	Holeta	0910 922 312	alazar@yahoo.com
Roses	Addisfloracom P.L.C	Kitema Mihret	Holeta	0912 264190	tasfaw@addisflora.com
Roses	Enyi- Ethio	Teshale	Sebata	0911 464629	enyi@ethionet.et
Roses	Lafto Roses	Andrew Wanjala	Sebata	0922 116 184	irrigation@laftorose.com
Roses	Eden Roses	Vibhav Agarwal	Sebata	0930 011228	vaibhavaggarwal1@hotmail.com
Roses	Ethio-passion	-	Sebata	0911 511 711	roshanmuthappa811@gmail.com
Roses	Golden Rose	Mr. Sunil	Sebata		
Roses	E.T Highlands		Sebata	0 911 50 21 47	bnf2etf@ethionet.et
Roses	Sharon Flowers		Sebata		saronfarm@ethionet.et
Roses	Selam Flowers	Etsegenet Shitaye	Sebata	0913 198440	etstgshita@yahoo.com
Roses	Joy Tech	mulugeta Meles	Debra Zyeit	0911 302804	mulugeta@joytechplc.com
Roses	Dugda floroliculture	sayalfe Adane	Debra Zyeit	0911 50 48 93	general@dugdaflora.com.et
Roses	Minaye flowers	Eyob Kabebe	Debra Zyeit	011-3728667/8/9	minayefarm@ethionet.et
Roses	Bukito Flowers	Anteneh Tesfaye	Debra Zyeit	0911 615571	
Roses	oilij	Bas Van der lee	Debra Zyeit	0911 507 307	b.vanderlee@oilijethiopia.com
Roses	Yassin Flowers	Tesfaye Gidissa	Debra zyeit	0911 89 78 56	kemevision@yahoo.com
Roses	Z. K Flowers	Abebe Mamo	Debra zyeit	0911 52 65 29	abemic/2006@yahoo.com
Roses	Friendship flowers	Edwin	Debra zyeit	(251)91 130 49 67	friendship.flowers@yahoo.com
oses	Evergreen farm	Hiwot	Debra zyeit	0912 18 5065	Hiwot.Ayaneh@yahoo.com
Roses	Rainbow colours	Tadessa Kelbessa	Debra zyeit	0911 389 729	rainfarm@yahoo.com
Roses	Sher	Ramesh Patil	Ziway	0912 131940	mnpatilpune@yahoo.com
Roses	Braam farm	Ben Braam	Ziway	0920 7462 70	braam.roses@hotmail.com
Roses	Sher- Koka farm	Alemitu Biru	Ziway	0912 09 78 24	
Roses	Ziway Roses	Ermiyas Solomon	Ziway	0921 094373	ermiasziwayroses@yahoo.com
Roses	Herbug	Hubb	Ziway		hubb@herbugroses.nil
Roses	AQ	Wim	Ziway		wimjr@aqroses.com
Hypericum	Margin par	Hayo Hamster	Holeta	251 911 505 845	marginpar@ethionet.et
Gypsophila	Tal Flowers	Mr. Uri	Sebata		uridago@walla.co.il
Hydragiums	Ewf Flowers	Humphrey	Sebata	0920 35 1931	production-manager@Ewf-flowers.com
pelargoniums	Red fox	Michel Zevenbergen	Ziway	0911 49 00 23	m.zevenberge@ethiopia.redfox.de
Hypericum	Abssinia flowers	Sendafa			ggh_link@ethionet.et
Geraniums	Ethiopia cuttings	Scott Morahan	Koka		scott.moharan@syngenta.com
Budding plants	Florensis Ethiopia	Netsanet Tadasse	Koka		flrensis@ethionet.et
Crysenthemums	Maranque	Mark Drissen	Merjetu	(251) 22 1190750,	md@maranqueplants.com
Freesia & Statice	Freesia Ethiopia	Ronald Vijvrberg	Sebata	(251) 115 156259,	freesia@ethionet.et
Hypericum	Yelcona	Andreas	Sebata	0921 146 930	Andreasndieolens@hotmail.com

Brexit:

Threats and Opportunities for British Floriculture

Brexit is still causing a stir in Great Britain, including among growers, who have been talking a lot about the UK's upcoming departure from the EU the last couple of months. The structure, distribution channels and staffing needs of a company seem to play an important role in the entrepreneur's opinion about Brexit.

"I'm really disappointed that the majority of the population voted in favour of leaving the EU", says Matthew Smith of Brighter Blooms in Preston. "My preference was to stay; operating alone isn't good for our economy. International business is going to be more complex without a doubt, it's going to involve more paperwork for example. And we may have to start paying import duties on products from abroad."

Smith grows calla, dahlias, lavender and tulips and he also trades bulbs. He imports a lot of plant material, especially from the Netherlands. "This has already become 10-15 percent more expensive, because of the depreciation of the British pound. That puts a lot of pressure on my pricing. If I want to maintain a healthy margin, I'll have to increase my prices. But you have to ask yourself what's reasonable. I hope that my customers - mainly consumers, traders and garden centres - are willing to pay for some of the costs. It's going to be problematic for us if the exchange rate of the British pound remains this low. Everybody's talking about Brexit all the time now, but I try not to worry too much. There's nothing we can do about it now, anyway. And it's going to take a long, very long, time before everything is finalised.

Import more expensive

Clowance Wood Nurseries in Camborne is also feeling the impact of Brexit. James Cock grows dahlias, daffodils and alstroemeria and he also purchases cut flowers from other growers in Cornwall and in the Netherlands. "We sell them to florists throughout Great Britain and to flower markets as well. In

addition, we do lots of flower arrangements for weddings. The low exchange rate of the British pound means that cut flowers from the Netherlands have become ten to fifteen percent more expensive the last couple of months. At some stage, we'll have to start passing on those costs to our customers, otherwise we're just going to lose out."

Businesses that don't import a lot aren't affected by the low exchange rates to the same extent. Like Beth Hillyard of Cornish Blooms in Praze-An-Beeble, who grows mostly daffodils, carnation and seasonal flowers. "Supermarket prices are also going up though, that's a trend which will probably continue the coming years. I suspect that this is going to have an impact on our company, too. Even if we buy most of our cultivation supplies in Great Britain, lots of raw materials are still coming from abroad. Indirectly, this will result in price increases. Not surprisingly, I voted to stay in the EU, I have always feared the financial and economic consequences of Brexit."

Staffing concerns

In addition to growers' concerns about the low exchange rate of the British pound, many of them are concerned about staffing once Brexit has become reality. Cock feels it may become more difficult to get Eastern European workers over to England. "They're very important for us, especially during the busy times. It's going to be a big problem for us if they can't come over any more. Most British people aren't too keen on getting their hands dirty and on doing hard physical work."

Hillyard says she's lucky that she doesn't need any Eastern European seasonal workers. "My husband and I can manage almost all the work together; we employ only one part time worker.

It's tough at the moment for growers who depend on Eastern European workers. And all they can do is wait and see how things are going to develop."

Local for local

On the positive side, growers believe that Brexit could bring opportunities and a boost for British floriculture. "If flowers from the Netherlands become a lot more expensive (because of the low British pound and because of potential import duties), more and more parties will turn to British products", says James Cock. "So, Brexit could be an opportunity for British growers to get a better price for their produce and it might lead to a growth of British floriculture. I already see a growing demand for English flowers anyway; we get at least ten requests per week from florists who are specifically looking for English cut flowers. They want more sustainable and fresher flowers. 'Local for local' is a growing trend and Brexit will only strengthen it."

Beth Hillyard confirms this; she says that more and more British people are aware of the origin of things they buy. "For food items, there's already a strong preference for 'British produce' and the idea is slowly entering the flower industry too. This trend might mean that we'll be able to expand our business a little in the future. We send our flowers - mostly daffodils, carnations and seasonal flowers - by mail to consumers throughout Great Britain."

Hillyard believes that traditional English florists are also going to have a hard time when imported products - including flowers - become more expensive. "If they had to close down, consumers might come to us.

During the last twenty years, almost all the family businesses disappeared from the British floricultural scene. Brexit might help to bridge the gap that currently exists between the large companies and the very small nurseries. On the other hand, there is a good chance that Brexit will lead to a recession. When people have less to spend, flowers are typically not at the top of their shopping lists. We might have to adjust our strategy, like selling our flowers for lower prices maybe. All in all, a lot remains to be seen."

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