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**FloraCulture
International**

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AIPH

THE BUSINESS BIG INTERVIEW
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**Flowers rising to
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BEING PART OF THE SOLUTION

Many will have seen footages of the world's biggest iceberg A68a. The 4,200km² behemoth is bigger than Luxembourg but smaller than Cyprus, and it broke away from Antarctica in 2017. The fear is it is drifting into the shallow waters of South Georgia, the world's most important penguin and seabird breeding area, blocking the animals' foraging routes.

A68a is another (FCI's) prime time front-page news item, and it perfectly fits into David Attenborough's documentaries highlighting our climate crisis. The voice of nature's latest series is *A Life on our Planet*. In a Netflix binge of this programme, I found Attenborough referencing Dutch greenhouse horticulture, touting it as the prime example of how to cultivate more food on less land whilst mitigating the effects of climate change.

One shining example of how Dutch greenhouse horticulture is pledging to prevent global warming is Oostland. It is an eclectic mix of Rotterdam and The Hague's architectural sprawl (130,000 homes) with hi-tech greenhouse operations (1,600ha).

In the past, society's need for housing and the horticultural sector's appetite for expansion frequently misaligned. However, here, both cities and horticultural business are now joining forces to accelerate the transition to renewable energy.

Oostland's combined residential and horticultural heating demand suited for geothermal and waste heat is equal to 16mn m³ gas. The challenge is to switch this volume off the gas grid. If this is done, then geothermal energy can contribute one megatonne of CO₂ savings.

Several doublets are now in preparation, primarily driven by the growers themselves. While much of the infrastructure is yet to finish, Oostland expects to have the first gas-free residential areas within five to 10 years. If Oostland taps into its full potential, geothermal energy can cover up to 40 per cent of its heating demand, with the port of Rotterdam providing the remaining 60 per cent of clean energy in the form of industrial waste heat.

The Netherlands is not the only country to be improving the sustainability of greenhouse horticulture as we see many improvements all over the globe in the field of energy systems, water management, plant breeding, fertiliser development, growing media, and pest and disease control.

David Bek, a Reader in Sustainable Economies at Coventry University (UK) is adamant the industry must go faster, further, and fairer to reach net zero. The refreshing thing about Bek's view is that he encourages our industry to not only look at ways of pushing more environmentally sound production and supply chains but also to promote forms of horticultural practice that benefit the society at large. The Dutch Oostland may provide an interesting case study.

We wish you and yours a happy, healthy, and prosperous 2021.





COVER STORY

18 CLIMATE CHANGE

Adapting to climate change or being proactive in reducing its onset?

22 DROUGHT TOLERANCE

LVG Heidelberg screens bedding plant range of drought tolerance

24 TECH

Horticulture plays its part in reducing water use

FEATURES

12 THE BUSINESS BIG INTERVIEW

Outgoing DFG CEO Marco van Zijverden on a tumultuous 2020 and the flower's giant future

26 COUNTRY PROFILE

Portugal in focus

30 ZOOMING IN

Floricultural *terroirs* to help restore France's bruised image

34 ICL NOW READY TO RAMP UP PRODUCTION OF OSMOCOTE 5

How the voice of the grower has been a fundamental part of the innovation process

36 CUT FLOWER PRODUCTION IN THE UK

'Being a UK grower is like walking on a tight rope'

42 OPF MEXICO CREATES DIGITAL MATCHMAKING FOR GROWERS

e-B2B Connect platform is gaining momentum

44 HUNGARY SEES LUKEWARM SALES FOR ALL SAINTS' DAY AND ALL SOULS'DAY

Grower András Kóvári jr. discusses sales around one of the country's most significant flower holidays.

VOICES

04 FROM THE EDITOR**07 EU SUSTAINABILITY POLICY****25 TAILORING APPROACHES****37 WHAT WILL 2021 BRING?****39 THE GREEN CONNECTION****40 TWO SCIENTISTS WIN NOBEL PRIZE IN CHEMISTRY FOR 'GENETIC SCISSORS'**

IN EVERY ISSUE

06 WORLD NEWS**08 VIS-À-VIS****41 THE GREEN CITY POST**

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UK, GERMANY, NETHERLANDS, BELGIUM

EU Commission willing to take more robust measures to protect CPVR

The EU Commission has included the revision of the Community Plant Variety Right (CPVR) Regulation 2100/94 into the IP Action Plan, published on November 25. By doing so, the Commission responded to the joint request brought forward by CIOPOA, AIPH, Euroseeds and Plantum, as well as many CIOPOA breeder members, in August 2020.

There was no mention of Community Plant Variety Rights when the EU Commission launched a public consultation on the IP Roadmap in July 2020. Responding to this shortcoming, CIOPOA raised concerns about the loopholes in the CPVR system pinpointing the importance of the adequate protection for plant breeders for the EU economy and maximising the EU's innovation potential. CIOPOA's advocacy effort has resonated with the authorities: the IP plan foresees a possible CPVR review in late 2022. CIOPOA also welcomes the intended integration of data on Plant



Variety Rights in the IP enforcement portal managed by the EUIPO, as well as the expressed intention of the EU Commission to speak with a strong and united voice in UPOV, the International Union for the Protection of New Varieties of Plants. CIOPOA Secretary General Dr Edgar Krieger said: "Already during the evaluation of the Community

Plant Variety Right acquis in 2011, CIOPOA pinpointed the shortcomings of the CPVR system for vegetatively reproduced crops. Main points of CIOPOA's concern were the weak provisional protection and insufficient protection of harvested material. Exactly these shortcomings then became the subject matter of the so-called Nadorcott Case

(C-176/18) before the Court of Justice of the European Union, resulting in a decision with negative implications for breeders. We are pleased that the EU commission recognised the need to act on these shortcomings." CIOPOA pleads to provide input to the discussion on the improvement of Community Plant Variety Rights in the EU.

NETHERLANDS

Floriade unveils its eye-catching artwork on a 14-storey high rise

The AIPH-approved World Horticultural Expo Floriade is pleased to announce that an eye-catching artwork is now displaying on the outside of 'Flores Tower'. Flores is a 14-storey block that will provide office space and accommodation to foreign guests during the six-month event, and serve as a residential tower block afterwards.

Created by MVRDV, Arttenders and artist Alex Verhaest from Flanders, the artwork is a celebratory mural of Floriade's planting scheme, highlighting the importance of biodiversity.

It mirrors more than 1,800 trees, shrubs and plants that people will find in the expo's arboretum. Flores will literally showcase the event's planting scheme on its structure. It will inform

visitors, like a roadmap on its sides. The highly visible information will mirror more than 1,800 trees, shrubs and plants that people will find in the expo's arboretum. Flores stands over 142 ft high – that is 43.5 metres tall to be precise. It is in Floriade's main square, which is near the event's main entrance. Floriade will open its door to the world from 14 April to 9 October 2022.



UNITED STATES



US horticultural industry M&A deals

Our man in the USA, William Armellini from [Flowersandcents.com](https://www.floracultureinternational.com) brings news of some major asset changes and partnerships in U.S. horticulture.

Firstly, the Bill Doran Company has purchased assets of the Greenleaf Wholesale company. The transaction allows Doran to operate wholesale distribution facilities in the Houston, Dallas, Portland, Reno, Tulsa and Texarkana areas as Bill Doran Company branches effective immediately. Additionally, all Bill Doran Company branches will benefit from the Mexican operations that will continue to operate as Four Brothers Farms in Tennesinggo, Mexico.

Secondly, moving to the East Coast in Florida, Manatee Fresh partners with Lowe & Behold. Manatee Fresh is the direct importer, national distributor, and local grower of potted plants, cut flowers and cut foliage. The new partnership will expand the company's reach, service offerings, and leadership position.

Manatee Fresh was relaunched from the ashes of the Covid-19 pandemic through a management buyout of floral operations along the gulf coast of Florida. Due to the impact of the pandemic on a variety of industries, floral sales had declined almost 80 per cent.

Manatee Fresh faced two options: either close or boldly pivot its business model into new channels and operating locations. Opting for the latter, since late spring, the company has expanded its wholesale and retail distribution, recently adding daily service to Central Florida's Orlando, Port Orange, Daytona, and Ormond Beach territories. This addition enhances its previously established distribution beyond St. Petersburg, Clearwater, Tampa, Bradenton, Sarasota and Fort Myers.

Lowe & Behold is Orlando's leading full-service floral event and decor firm. As a division of Manatee Fresh, the partnership augments Lowe & Behold's ability to provide clients with premium quality and freshest possible cut flowers, imported daily from around the world. As well, this Orlando presence expands the ability of the Manatee Fresh wholesale and supermarket divisions to service Central Florida. And, importantly, Lowe & Behold's team joining Manatee Fresh greatly improves its creative and design abilities, seen across all sales channels.



EU SUSTAINABILITY POLICY

Fourth-generation **Jan-Dieter Bruns** is CEO of one of Germany's leading plant nurseries Bruns Pflanzen.

For many years, the production of trees and shrubs in Europe has been the focus of EU sustainability policy. Within the framework of the Green Deal, which makes further demands on us growers of trees and shrubs as it concerns the traceability of plant supplies, the use of plant protection products and their content.

Before now, we have been reducing the number of active ingredients in integrated crop protection for several years. Within the hardy nursery stock sector, tree nurseries have adapted to the demand for these changes and developed alternative and increasingly sustainable production methods.

In the Green Deal context, the EU wants to ensure that the importance of worker safety, soil protection, water protection and the protection of living organisms, mostly insects or soil-dwelling organisms, is increasingly recognised.

It is becoming challenging to maintain plant production at our high-quality standards when there are less and fewer possibilities to achieve adequate plant protection.

It is scientifically proven that a 90 per cent efficiency of a plant protection product is reasonable to meet the phytosanitary standards required by the consumers.

We have also noticed that so-called biologicals, whose efficiency is much lower, are not being widely developed by many companies in the crop protection industry. This focus must change if the EU wants to reduce the use of chemical pesticides further.

The EU must, therefore, be careful not to implement any regulations in the future that would make quality-oriented plant production more difficult or even prevent it.

The flipside of this coin is that the EU wants to prevent the spread of harmful organisms. Achieving this avoidance can primarily happen in the production process by protecting plant health.

In addition, the EU plant passport is a proven tool to prevent the spread of diseases and harmful organisms within the European Union. We believe that the existing regulations on the plant passport are sufficient. Any possible assessment, as requested by the EU, can ultimately only have the intention of reducing the bureaucratic obstacles created by the last reform of the plant passport.

Plant inspections in tree nurseries are just as commonplace for plants from risk areas (*Xylella fastidiosa* or Asian citrus buck beetle) as is the separate storage of such plant material.

The nurseries are already an important and reliable partner in plant health and pest control. If the EU wants to introduce innovations in this area, they need to work closely with the industry.

Air cargo market for flowers is anything but normal

On 8 May 2020, Dutch Flower Group (DFG) announced it had agreed to buy DSV Panalpina's Airflo unit, a specialised forwarder of flowers and vegetables. Back then, the deal was pending for approval by Kenyan and Dutch competition regulators. How is the acquisition process currently progressing? How has the coronavirus pandemic affected the freight forwarding industry, and what is the future outlook? Pim de Wit, general manager at Airflo, has the details.

AUTHOR: RON VAN DER PLOEG PHOTOS: BIANCA FENNE, K.N. AND AIRFLO

Both applications for Airflo Ltd. in Kenya and Airflo B.V. in the Netherlands have been approved by the respective Kenyan and Dutch competition regulators. Airflo Ltd. will remain in its wholly-owned facility at Nairobi airport while Airflo B.V. has moved out of the DSV warehouse and into the premises in De Kwakel. Additionally, Dubai-based perishable logistics company Q7 Air Cargo is to acquire an interest in Airflo. DFG is delighted to have Q7 on board and its sister company Tiger Freight. These are long-term operators in the African perishable logistics industry and their participation in the Airflo businesses will further enhance Airflo's focus on delivering superior perishable logistics solutions to our customers.

FloraCulture International: What was it about the Airflo company that DFG felt was important?

Pim de Wit: "There have been many changes over the last years in the logistics business environment, impacting not just DFG, but all of what was previously DSV Panalpina's customer base. We believed that we should have exerted greater control over and bring even greater focus to our logistical flows going forward."

How would you describe the essence of the Airflo business, in terms of the service you provide for the flower industry?

"Our in depth-knowledge of the ever-increasing demands of the fresh cut flower, produce and fruit supply chains mean we are uniquely positioned to better manage these supply chains. We deliver an independent service to the market where growers, wholesalers, retailers, unpackers and auctions can make use of our service. This is built on strategic partnerships with the world's key cargo airlines. We bring an entrepreneurial flair, focus on the customer and deploy our many years of experience

in this global market to keep that cargo in our care fresh. With no limits on our ambitions in this regard."

Can you give me some illustration of how vital flowers are now to Airflo?

"Flowers are very important for Airflo, however we also have large export volumes of vegetables and fruits moving through our Dutch business and herbs form an important part of our Kenyan operations. We are looking for opportunities to expand our market share for flowers but also bring greater focus on fruits, vegetables and herbs from Kenya. Adding business with existing Dutch is also part our business strategy. Synergies are created elsewhere in Africa thanks to our newest partnerships with Q7 and Tiger Freight which will lead to an dynamic interplay between participants, again focused across all three key product lines."

The activities of Airflo focus on handling and logistic services of perishable products by air, such as cut flowers and vegetables. Can you elaborate on that?

"Our main market is the Kenya – Netherlands trade

PASSPORT

Name: Pim de Wit

Age: 47

Job title: General Manager

Employer: Airflo since March 2019

Education: Amsterdam School of Technology - Logistics & Technical Transportation Management (HTS Logistiek en Technische Vervoerskunde)

Previous working experience: DHL



lane for our imports with 28 flights weekly, but we also serve the USA, the Middle East and Far East with about 60 weekly flights. Flowers are harvested, conditioned and packed at the farm today to be transported to the airport overnight for flight departure next day. Flights to The Netherlands usually depart in the evening to arrive in Amsterdam, but also leave the next morning for Maastricht or Liège. Shipments are collected at the airport and delivered to the importer within hours after landing. Flowers are either sold on the day of flight arrival, are auctioned off the next day or sold directly to supermarkets. Occasionally, today's harvest can fly to Amsterdam the same day and can be sold next day."

What are the most critical steps, in terms of maintaining the quality of the product?

"There is an absolute need for supply chain collaboration in order to achieve the shortest possible lead times in place and avoid the product from being exposed to temperature deviations in each and every step of the process."

What can the grower do to help protect product quality before it leaves the farm or nursery?

"Make sure that the product is properly packed and remains temperature-controlled at all times; from post-harvest onwards. Growers need to continuously

Airflo's general manager Pim de Wit: "We pride ourselves in offering the best cold chain in the market."

manage this area of risk. Whether it is temperature-controlled trucking to airport or the necessary investment into well-designed and manufactured packaging material; all aspects of cold chain management help the industry to deliver superior product to the market."

What does Airflo bring in terms of expertise to keep the chain running smoothly, and to maintain quality?

"We pride ourselves in offering the best cold chain in the market. More recently, we invested in new and extended cold stores in Nairobi, including closed dock shelters, and individual temperature-controlled storage facilities. Also, we put time and money into temperature-controlled transport of aircraft pallets from our Kenya cold stores to the aircraft. Upon arrival in Europe, shipments will be delivered as quickly as possible to our customers. In Kenya, our partnership with Flowerwatch ensures secure and reliable cold chain logistics. In the Netherlands temperature-controlled logistics suppliers select the shortest routes to ensure the shipment is delivered timely. Tracking teams monitor each and every shipment, keeping the full chain informed as to the progress of these shipments. To minimise handling of boxes we work closely with our clients and encourage shipments on skids (no bottom deck boards) rather than individual boxes. This approach results in less damage to the packaging and content and quick loading and unloading. Data loggers have come an important business tool to better understand temperatures during transit."

Linking a wholesale business such as DFG (which already possessed a minority share in the company) to a freight forwarder such as Airflo, how much of a game-changer is that for the sector?

"Airflo is an independently managed business. Vertical business integration can only bring benefits; from the grower to the end consumer – and all actors in between. Our role in the supply chain is the international logistics link. We believe that everybody in this market should be able to take full advantage of our scalability and in-depth sector knowledge. So yes, from that perspective, this integration is a game changer."

Will the DFG and Airflo alliance allow DFG to reduce air freight costs?

"To operate as efficiently as possible we must ensure that we present our customer's product to the market in the best possible condition. Cost is critical – for all customers. Clearly, logistics is an expensive aspect of the supply chain. But our main focus remains on scale and on the quality of our service delivery to every customer."

Can you explain how coronavirus has impacted the flowers side of Airflo's business?

"Economic indicators had just pointed to a rather sluggish Valentine's shipping season when the coronavirus pandemic hit us hard in mid-March and the first weeks of April. Luckily, what followed was a relatively quick recovery. Nevertheless, the business



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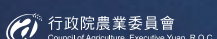
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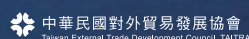
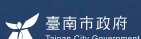
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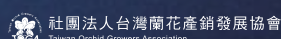
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continues to be under pressure with lower shipping volumes than under normal circumstances. The biggest challenge of the last months is the very tight air freight capacity situation (as airlines redeploy their aircraft) and the very high level of rates demanded by the aviation industry as they too battle the Corona outbreak. "At the start of the global lockdown, airfreight capacity had reduced very fast; by approximately 60 to 70 per cent and we noticed that there was still cargo available for around 50 per cent of the available capacity. This in combination with the almost worldwide grounding of passenger flights put huge stress into the market. Rates increased and the lack of capacity went hand in hand. Normally we turn around big volumes, balanced between the grower and the airline but the market turned into a daily market for a longer period of time. Planning has been immensely difficult."

Which regions/routes were most affected, and which were less so?

"The most affected regions for us were the US and the Far East. The Middle East remained a strong region for us to serve. No need to say that we are very proud of the customers and the airlines that have supported us in this period."

How did you manage to keep business going?

"Ours has been a proactive approach by leveraging our relationships with carriers, buying space from the airline and offering this space to our customers. We also have been looking for alternative routes and we have offered this to our customers as well."

How would you describe the situation in the global supply chain now?

"The capacity crunch continues and the air cargo market is anything but normal. This situation applies especially to the US market where recovery is a long way off. A weakening dollar does not help either. Other regions seem to be picking up or remain stable but overall it is a very volatile business environment."

Did the crisis result in more outstanding debts for companies offering air freight services to the flower sector and how much of an issue is this currently?

"Unfortunately there are a few customers impacted by the slow down and it is no secret that their debt situation is not great. This is of course concerning, especially since these debtors have long relationships with us and

More recently, Airflo has invested in new and extended cold stores in Nairobi, including closed dock shelters, and individual temperature-controlled storage facilities.

there are real people with real challenges behind these numbers. We try to assist as much as possible where there are problems but we must balance this situation given our own cash position."

Do you think there will be more long-term contracts between companies like yourselves and your customers – would that be of benefit to the trade?

"The whole situation is still very fragile. First, there were signs of improvement but more recently we witnessed a flare up of Covid-19 cases with many markets turning down again. In the best-case scenario for our industry, international passenger flights pick up as countries open up again with people feeling healthy and safe to travel around the world. In such a situation, extra capacity will help driving prices down, benefiting global trade as a whole. I expect business to be back as normal in the beginning of Q3 2021. From Q3 and onwards it can take up 1 or 2 years before we are back to normal but I sincerely hope I am wrong."

Could there be rationalisation in terms of the number of carriers, and will it become a more specialised sector as a result?

"Yes indeed. We are already experiencing major cost savings on the part of global airlines and that will have an impact on our industry. The major part of the savings are currently hitting the passenger side of the airlines and the cargo operations will follow if there will not be a vaccine within the next period of time. On a positive note, airlines hopefully realise that cargo and especially perishable cargo will always be there and we have seen that these cargoes are more or less disaster proof. On the other hand we cannot compete with pharmaceutical products where I have seen rates being sold for more than 15 euro per KG."

Will the flower supply chains use more sea freight in future?

"Yes, this trend already had started some years ago but the Covid-19 pandemic will provide an extra boost. I anticipate more type of flowers and many more types of fruits and vegetables to be moved via OFR. Luckily, we have shown in the past that we have our local experts ready to handle this so I am looking forward for this development. However, there will still be a big need for AFR, especially once we have Covid-19 under control but there will be a shift to more OFR. That is for sure."

Could you end with some thoughts about how the last few months have been for you, and the effects on your relationships with your customers now that business travel and face-to-face contact is hardly possible?

"Covid-19 clearly has shown how fragile we are but also how good we are in adapting to new situations. Personally, I value face-to-face contact with customers, suppliers and employees a lot, but we have shown that we can do a lot with modern technologies. Additionally, it is good to experience that our staffing employees also have been able to adapt and that daily contacts with their relations have been different but were still on a level that we could work very well together."

Ready to ramp up the co-financing of flower farms

On 1 January 2021, Marco van Zijverden handed over the reins of Dutch Flower Group (DFG), the world's largest wholesaler of flowers and plants, where he has gained a 21-year stint as CEO. In this exclusive interview, he shares the knowledge of an outgoing chief executive and highlights the issues the company faces.

AUTHOR: RON VAN DER PLOEG PHOTOS: DFG/MELINDA-LOU VAN DER LINDEN

The announcement of Van Zijverden's departure one year ago came quite unexpectedly as the industry presumed it would coincide with his 60th birthday as he used to tell everybody. The 58-year old, freely admits that the time to quit arrived sooner than planned. He explains, "Q4 of 2019 marked quite a few changes to DFG's executive leadership team with Ruud Knorr, director retail/plants and Marco Vermeulen, director of wholesale&sourcing leaving the company. The management of our 33 companies continued to report directly to their CFO Harry Brockhoff, and myself. The lines of communication worked well, but with two out of six of our executive staff leaving, things kept us busy. At the same time, our supervisory board member Jan van Dam retired from Ahold after running different divisions of the multinational for 23 years. He showed keen interest in joining the organisation he had already grown familiar with. So, we proposed his first steps into the role of CCO to succeed me in three years. Jan was showing drive and above all readiness, and he accepted on the sole condition of the succession date being forwarded to 1 January 2021."

LIKEABILITY FACTOR

Van Zijverden is the son of the illustrious Klaas van Zijverden who founded OZ in 1959. He joined after an assignment as a graduate student in 1985 and started to do a feasibility study about the possibility of importing flowers from Zimbabwe.

He officially joined DFG in 1986 after graduation from Erasmus University in Rotterdam and Nyenrode Business University. In his first role, he ran OZ Import and later, OZ Export, a floral wholesale company with substantial exposure to the US market, which at the time headed for rocky waters due to an economic downturn.

More than 34 years later, he says that reshaping a business, bolstering its market, is what he still enjoys most. He says, "Building a company is building a

community by following a step-by-step approach. First comes the vision, second the strategy. The third challenge is to find the right people to execute it with precision."

Van Zijverden is sure to leave the company in good hands. Not only has his successor soaked up a great deal of mentoring from his 'old boss', but he also brings to DFG an excellent track record in retail, the market segment in which the Dutch Flower Group generates two-thirds of its business. Van Zijverden continues, "Jan's experience in retail and online sales and his international work experience (editor's note: Boston, Prague) makes him the obvious choice for the job. And yes, he is a nice chap. Interesting that you ask me because to lead successfully in the modern business setting, your social capital - your likeability factor - is also at stake."

CREATING A COLOURFUL, EVER-CHANGING WORLD

Van Zijverden looks at his job as a source of meaningfulness; he adapts what he calls a 'politically correct language'. "I am completely honest with you when saying that when I started in this business, I appreciated the beauty of flowers and plants. But that was it. It was all about the worldwide business, profitability, competition and the global trading networks which are behind them. However, during the last 10 years I have grown prouder of our products. Not only do they keep the world smiling, flowers and plants are also good for our physical and social well-being. What once started as pure business has become something that is creating a more colourful and even better world."

In terms of corporate activity, in a world which is also fast-paced and ever-changing. Van Zijverden points to the game-changing merger of equals in 1999. "Van Duijn Group and OZ Group, two financially strong family companies joining forces to become Dutch Flower Group was an absolute first for the industry in that it showed that knowledge sharing can be the main motive on which to build a company. Another significant change over the



PASSPORT

Name: Marco van Zijverden

Born: 29 April 1962

Place of birth: Aalsmeer

Joined DFG in 1985

Served as OZ Group's CEO between 1986-1999

Served as DFG's CEO from 1999 to 2020

Will stay on as Chairman of DFG's Advisory Board

last ten years is the digitalisation of our industry, and the changing role of the auction clock. In the 1980s, we bought 95 per cent of our products through the clock. Today, the companies serving wholesale continue to do so while nearly all mass market flowers are directly sourced from growers across the globe. Which automatically brings me to the rise of the mass market floral industry and how it is transforming the way our industry operates.”

THE NEED FOR NEW BLOOD TO PROGRESS

Family businesses typically form the backbone of global ornamental horticulture, and DFG is no different. Van Zijverden's departure marks the first time that the company is reaching outside for a CEO. And that is, Van Zijverden is quick to ensure, without leaving nor the Van Duijns nor the Van Zijverdens struggling with a well-known paradox; maintaining family values and respecting the legacy of the previous generation whilst also seeing the need for new blood to progress. “Frankly, we are proud to be a family run business with deeply engrained values such as transparency, responsibility and sustainability. But we are always in search for the right balance between talents from within the floral industry and beyond. Bringing in outsiders is important, and it is what we have been doing over the last couple of years. Our Chief Information Officer (CIO) has previously held different management positions at KLM and Transavia, Harry Brockhoff comes from the tobacco industry, and my successor worked for Ahold.”

At DFG, the management takes shares in the company. “To date we have more than 100 shareholders. If the managing directors and their teams are performing well, they are automatically part of the financial success. This results in a strong, family-like commitment, which really helps us to grow.”

‘WE WERE LOSING 80 PER CENT OF OUR TURNOVER’

After barely two months following Van Zijverden's announcement to withdraw, the first wave of coronavirus cases was engulfing Europe with widespread disruption in the logistics chain, closure of borders and markets, an auction clock in a free fall and tonnes of unwanted flowers ending up in the compost heap. Trade show after trade show cancelled or postponed. And even if Van Zijverden stays on as part of DFG's advisory board, his farewell party has been rescheduled at least five times.

Giving a timeline of events he recalls, “None of us had experienced such a thing before. It felt surreal and as something beyond your control. When I came home in the evenings of mid-March the reality kicked in that we were losing 80 per cent of our turnover. The biggest challenge was to keep the team motivated while the reality forced us to cut costs right away by laying off all temp workers.”

DFG made use of a wage subsidy scheme and only a handful of its divisions made claims under the government's €600 million aid package. Van Zijverden notes, “It is easy to blame the government for your problems but looking back I think the whole thing was



In an ironic twist of corona-fate, people are spending much more time at home and taking a considerable interest in decoration, gardening, and home styling.

well organised. The needed money was there into your account within three weeks. More than 85 per cent has been paid back as losses turned out less severe. As for the national stimulus package, ultimately less than half has been used by growers and traders. Given the situation in which our peers abroad are, we should not complain.” In the run-up to Easter business started to pick up, and countries were easing their restrictions. “Fortunately, Boris Johnson announced the country's lockdown two days ahead of Mothering Sunday, allowing us to supply just in time for all our British retail customers. If he had done so one week earlier, the drama would have been even bigger for us.”

TOP SELLING LIVING PLANTS

In an ironic twist of corona-fate, people are spending much more time at home and taking a considerable interest in decoration, gardening, and home styling. “Living plants have emerged as the top selling product amid the pandemic. In cut flowers, our companies selling to supermarkets are performing reasonably well. But Covid-19 restrictions differ from country to country. Following France's second wave of coronavirus cases, the government ordered supermarkets to close their non-essential departments. In my opinion this is proof of political short-sightedness as the measure will be counterproductive. It will encourage shoppers to take to Amazon, which already is the country's most popular online store.” (Note from the editor: apart from a handful of fruitless partnerships between Monceau Fleurs and Amazon France, the online retailing giant plays no role of importance in online flower delivery. More successful are platforms such as Aquarelle, Bebloom and to a lesser extent Monsieur Marguerite.) Van Zijverden candidly admits that DFG's cut flower business, selling to wholesale such as OZ Export, Hamifleurs, Horex and Florca are battered more heavily as the road to recovery for the events industry is long. “In a country such as Italy weddings and flowers are big business when it comes to cool new varieties. Turnover in these segments dropped between 20 and 30 per cent. It may be too early to predict a flurry of marriage celebrations in 2021, but we are ready for it.”

KEEPING IT SIMPLE AND STRAIGHTFORWARD

Countless webinars have tried to identify the route to recovery under the new normal and post-Covid. Van Zijverden does not believe in painstakingly crafted

strategies. “Keep it simple and straightforward. Cut overhead costs and ensure that customer satisfaction remains intact. Sometimes you can also use the pandemic in a positive way. Hamifleurs, OZ Export and Van Dam Bloemen for example have combined their activities, logistics operations and back office support functions. Bloom, Green Partners, and Greenex, all three specialised in supplying mass market floral departments across Europe, they now have a joint leadership team.”

ONGOING GROWTH STRATEGY

In terms of international growth, it is no secret that DFG aims at expanding its business in the USA, building on their existing market presence through The USA Bouquet Co. and Holey USA through dedicated partnerships. “But we need to speed up things as competitors such as Sunshine Bouquet are at our heels and there is a quickening pace of consolidation.” Contrary to what Dutch newspapers reported, Van Zijverden insists DFG will not embark on flower production themselves, but will further intensify its long-term agreements and exclusive deals with flower farmers. Plus, in an era of easy money, with interest rates at European banks at a record low, the Group will ramp up the

co-financing of flower farms in Kenya and Ethiopia and tulip farms at home.

When asked about a shift in international trade patterns, he notes, “Increasingly what you will see happening is that China produces for Asian countries. In

turn, Africa and South America will continue to cater for the European and North American market, respectively. So no real big changes anticipated there, apart from a few niche ventures. DFG, for example, ships weekly around 10 to 20 containers from Colombia to the UK, while also sourcing some products from China.”

THE DUTCH PLANT GROUP

More recently, news broke of the new powerhouse of plants: the Dutch Plant Group. Three major plant suppliers, including DFG members OZ Planten and Hamiplant, and Waterdrinker joined forces tapping the potential of ever-popular indoor and garden plants. All three companies will continue to trade under their names. The brand title will merely serve to indicate its market power. By partnering, all three companies can now offer their associated breeders and growers a much larger and exclusive sales territory. It will help plant innovators to obtain an even better return on investment.

DFG’s digital readiness helped to tackle the coronavirus crisis. In a demonstration of frugal entrepreneurship Van Zijverden says, “Granted, the total cost of software ownership comes at a cost. But we were lucky to have

the latest update of Office 365 implemented within all our companies, allowing them to connect using Teams. Already in 2019, we decided for a multi-million overhaul of the webshops of our wholesale companies. Also, we will complete the roll out of Enterprise Resource Planning (ERP) system. This solution plays an important role in centralising information that eventually will boost productivity and sales between DFG and its supermarket customers.”

Don’t get Van Zijverden wrong. He has nothing against private equity, but DFG’s is not a short-term focus.

“A good example is our letterbox flowers company BloomPost and its e-commerce fulfilment and delivery service e-Flora. This part of our business is still not huge, but rapidly expanding. At the time, we felt the need to invest because we foresee more future growth.”

DATA PROTECTION IS A TOP PRIORITY

Another digital venture is the digital platform, Blue Roots. Initiated by DFG in 2018, Blue Roots is now a 50/50 business partnership between a group of 25 trading companies including DFG and FM Group, and Royal FloraHolland.

Blue Roots is an integral part of the auction’s Floriday platform. Van Zijverden explains, “While Floriday is

the grower’s powerplug, Blue Roots is meant to be the portal for buyers. So, all growers enter their products via Floriday and in the end the flowers shall go out via Blue Roots.”

For all the EU’s GDPR efforts, the question arises whether it is a good idea to put full trust in a sales platform by handing over precious data online.

Van Zijverden says, “Data protection is our absolute top-priority. Royal FloraHolland’s CIO André van Linden previously worked at Rabobank and has in-depth knowledge of data governance and protection.

IN AN ERA OF EASY MONEY, WITH INTEREST RATES AT EUROPEAN BANKS AT A RECORD LOW, THE GROUP WILL RAMP UP THE CO-FINANCING OF FLOWER FARMS

Dutch Flower Group generates two-thirds of its business in the multiple retail segment.



Conversely, FM Group, Royal Lemkes and DFG have teamed up in the Blue Roots expert team to develop protocols and the first results look good. It may be worth stressing that if auction reps breach data protection laws they can be fired and fined. To date, that is not the case because the auction still works with an open access system dating back from one hundred years ago."

Blue Roots position was to counterbalance the auction's strategy with the cooperative, for example purchasing and reselling flowers in China. "A year ago, we decided to open up this innovation beyond our walls as we realised that we need external parties to expand. Now that a wind of change is blowing and the auction is back to its core business, there is confidence we can increase the Blue Roots's potential together."

The Blue Roots partnership highlights the stark contrast between DFG and Royal FloraHolland being frequently on a collision course halfway the 2010s. Van Zijverden iterates, "There is no conflict between auction and trade. We would like to stress that we support the auction, but we will always continue to challenge them."

MAKING THE MINISTRY OF FLOWERS MORE EFFICIENT

As an outgoing CEO Van Zijverden has one great wish left; to make the auction system of that what is regularly called the 'Ministry of Flowers' more efficient. "The outlook is good. The auction will deploy nation-wide auctioning, and further digitalise its business. All this will mean that soon we will stop auctioning at 6 am but at a more generally accepted hour during the day. This 'today for tomorrow' approach will allow wholesalers to directly source their products from the grower or through the auction's fine-meshed and frequent distribution network. It will lead to huge efficiency within our companies because you will not have to wait any longer for your flowers and plants."

Now that the relationship between DFG and auction has normalised is Van Zijverden ready to put his money on the auction? After giving the issue a long thought, he says, "As long as they accept our feedback on their strategy, I am ready to do so. But it is all very much depending on the type of leadership. In my 34-year career I have seen at least six auction CEO's come and go, all of them bringing in new strategies. And we all know that from RFH's earlier '2020 strategy' this resulted in pretty much nothing."

WRAPPING UP AN EVENTFUL YEAR

Van Zijverden references the Dutch sector's Let Hope Bloom campaign that, he says, "re-invigorated the importance of flowers and plants in consumer's minds". He also expresses how happy he was to see that the coronavirus outbreak forged new bonds of togetherness and altruism. Instead of throwing unsold flowers away, the industry sent the blooms to the elderly, nursing homes, and hospitals.

In 2020, DFG posted a €1.6bn turnover, a seven per cent decrease in comparison to 2019. DFG will still be profitable -guarding expenses below budget- but at a lower level. This calculation is partly due to the economic impact of the coronavirus pandemic, but also



DFG's head-quarters in De Kwakel.

the imminent loss of Tesco's business at the end of 2020. This situation forced DFG to restructure Intergreen.

Few of us can imagine what it means if one of your largest clients that brings in €140m leaves to somewhere else. For Van Zijverden it is the cold, harsh truth. DFG lost the tender, Flamingo Horticulture Ltd and MM Flowers won. "The brand name Intergreen will continue to exist while we liquidated the company ourselves and arranged for a social plan."

He vividly remembers the moment he had to share the news with the Intergreen folks "It brought tears to my eyes. The client left due to no fault of our own and despite all our hard work."

If the price is the primary reason why a customer is leaving, the hardship is even harder to digest, Van Zijverden says. "Especially when considering the huge amount of work spent on shopper experience, floral composition, quality and marketing research. In a tendering process the risk is that you are only evaluated on price, while all other values easily get lost. Fortunately, we will continue to serve Tesco Ireland and mainland EU." Van Zijverden comments upon the increased level of outstanding debts across the horticultural value chain due to a tumultuous 2020. "In March, we were deeply concerned about our wholesale customers in Italy and Spain fearing huge outstanding debts. However, I have to say that the year ended on a much more positive note than expected."

Drumming his finger prominently on the table, he adds, "But you can never increase your margins to make up for the debts among your clients."

Finally, the end of 2020 will make it into the history books as the final part of the UK's divorce from the EU. "The good thing is that Ecuador and Colombia are now at zero tariff. Within our company our CFO Harry Brockhoff, touted as Mr Brexit, is liaising with governments through sector bodies and lobbyists, discussing custom duties. So, yes we are prepared because if plants need inspection in the UK you need a location, VAT numbers, and knowledge of kinds of different systems. We are prepared for the worst, that is an eight per cent tariff on fresh cut flowers."

Sighing deeply, "Yes, it is crazy. It will hurt the overall business resulting in less turnover, and more expensive flowers for the consumer. But we are all realistically in the same boat and this applies to all businesses active in multiple retail."



Sometimes, something that seems small,
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Adapting to climate change or being proactive in reducing its onset?

Dr David Bek is a Reader in Sustainable Economies at Coventry University (UK) and works very closely with horticultural entrepreneurs, whom he says, should not miss the scope of mounting risks from climate change. He says the industry needs to cut emissions to reach the UN's 1.5-degree pathway rather than work out how to live with it. "There has to be an awareness that the policy environment could shift markedly against 'non-essential' items with a high carbon footprint."



Bek's official job title is Co-Lead of the Sustainable Production and Consumption research cluster within Coventry University's Centre for Business in Society (CBiS). This cluster focuses on the ultimate goals of living within environmental limits and the attainment of social justice, through the delivery of responsible business and ethical consumption practices. He, and his colleague Dr Jill Timms run the 'Sustainable cut-flowers project' which works very closely with industry stakeholders to identify and deliver initiatives that will ensure the industry's footprints are more sustainable. His team collaborates with organisations such as the Fairtrade Foundation to increase awareness of ethically sourced flowers.

THE CLIMATE CRISIS HAS MANY DIMENSIONS

The most recent period in Earth's history, when the humans' activity started to have a significant impact on the planet's climate and ecosystems, has set the planet on course for a 1.5 degrees Celsius rise in temperature.

The 1.5°C of warming is a given, Bek stresses and will occur a decade earlier (2040) than previously projected by the Intergovernmental Panel on Climate Change IPCC (the UN body for assessing the science related to climate change, founded in 1988).

"Most scientists agree climate change is a crisis. And there are many dimensions to this crisis in terms of soil, water, and air. The temperature reading of 1.5°C warming might conjure up long hot enjoyable summers in Western Europe but the reality of the impact upon the systems that drive the weather is so problematic. Ultimately, climate change will totally alter the dynamics of weather systems with shifts in jet streams. Subsequently, different types of weather systems will start occurring in other places and in a much more intense form, causing all kinds of chaos."

THE GOOD NEWS BEYOND THE SEVEN PLAGUES

There are many challenges we need to grapple with, such as floods, droughts, changes in crop viability and emerging of new pests and diseases, and soil depletion. At times, it feels like the horticulture world is suffering the seven plagues. But Bek is happy also to share some good news, saying, "Technological advances are remarkable in the horticultural arena. The rate of technology change is unprecedented and as we have seen with the development of Covid-19 vaccines when the pressure is on, it is extraordinary what can be developed. So, in horticulture we are seeing many improvements in water usage systems, nutrient development, growing media, pest and disease control, and energy systems. And within all these developments there is a definite trend towards more sustainable options which will enable production to continue and which will reduce risk for producers. It is important that an enabling environment is created to facilitate the development and rollout of more sustainable technologies. Research

THE 1.5°C OF WARMING IS A GIVEN AND WILL OCCUR A DECADE EARLIER THAN PREVIOUSLY PREDICTED

and development is essential and support with innovation processes and costs is critical."

MULTI-DISCIPLINARY RESEARCH

Multi-disciplinary research is essential to drive forward the sustainability agenda in a way that will increase resilience. Bek adds, "Technology is key, but this cannot happen in isolation. We also need research that looks at developing socially acceptable technologies and that helps drive positive consumer behaviours. We also need to be wary of unintended consequences – the steps taken to mitigate one problem can exacerbate another."

He illustrates his words by giving an example from the fruit sector. "We are seeing a proliferation in massive net cages built to protect plants from extreme heat and wind damage. These structures not only are eyesores they are also creating a huge issue with plastic pollution, both immediately as overtime the plastic damages and shreds off into the environment, and, in the longer-term concerning eventual disposal. During my research, I have seen many of these structures erected in South Africa in the last five years in response to increasing heatwave conditions. We need to assess its full sustainability impacts."

CLIMATE CHANGE FROM A LOCAL PERSPECTIVE

The conclusion that does emerge from impact studies is that climate change has the potential to change the productivity of agriculture and floriculture significantly at most locations. A slight change in one environment could be disastrous, whereas more significant changes may not be so troublesome in others.

Bek notes, "The predictions certainly indicate that countries in Africa, Asia and Latin America will face considerable changes and that some of these will be extreme. For example, significant increases in temperature which will make agricultural production almost impossible. But there will be locations where the average

changes will not be great but severe events will become more common, which could be catastrophic and of course much harder to mitigate against. There will also be areas of the world where horticultural production may become possible on a scale that is not currently possible, i.e. areas of northern Europe. Certainly, the projections do not look good for countries such as Kenya and Ethiopia."

WORKING WITH 'REAL-LIFE BUSINESSPEOPLE'

To achieve meaningful changes in the field of climate change (sustainability), CBiS draws from a broad range of



David Bek is a Co-Lead of the Sustainable Production and Consumption research cluster within Coventry University's Centre for Business in Society (CBiS).

knowledge and stakeholders, including 'real life businesspeople'. In the past, Bek has worked with protea growers Fynbloem and Intaba Flowers from South Africa. Here he has seen how the country's cut flower industry has made exciting strides in sustainable production. "A high proportion of stems are cut from wild landscapes. This has been a concern as species are under pressure. So, efforts have been made to introduce sustainable harvesting protocols and train harvesters, so they do not damage the seedbanks. This has triggered a broader concern for sustainability within the industry there. Fynbloem's pack shed is a remarkable structure, carefully designed to save energy and water. Management continually reviews sustainability metrics to ensure that improvement is ongoing. A push from retailers has been important – Fynbloem started with Marks & Spencer who were influenced by the Plan A sustainability programme, whilst Intaba have had close relationships with Woolworths in South Africa. They are potent proponents of sustainable farming. Supply chains that do not serve major retailers tend to be laxer about sustainability issues." Closer to home, FleuraMetz UK says Bek and his colleagues work is an eye-opener. "FleuraMetz UK are part of Coventry University's Sustainable cut-flowers project and have been very engaged and active. The project is multi-stakeholder

meaning that we have people representing various businesses and organisations involved, which exposes members to ideas and perspectives they might not otherwise

come across. FleuraMetz has been very interested to learn more about what sustainability means in

practice and are looking to be very pro-active. For example, during a project workshop they realised that it would be a good idea to communicate which certificates were held by their suppliers – they added this information to their website overnight."

HOW SHOULD THE FLORICULTURE SECTOR POSITION ITSELF?

Climate change risks are not equal. To ensure that low-income groups have access to critical resources and decision-making processes, more engagement, and more work via multi-stakeholder groups is needed. Bek comments, "On site audits need to be more focused on 'the workers' voice' and community input. These are not just a 'nice to have' – but can be vital for picking up early signals of problems, which can disrupt supply chains."

Legislation, regulations, taxes, and subsidies are all ways that governments can influence the speed of climate friendly production and trade. How should the floriculture industry position itself to be part of the conversation that drives change? "Acting together is

key. Being open to the issues and challenges that exist – don't just kick the can down the road. The industry has shown incredible agility this year in responding to

the pandemic crisis. Climate issues will be more intractable and needs work now to mitigate. The key thing is to try and reduce the impacts of climate change

(i.e. cut emissions) rather than just work out how to live with it. The latter approach may be OK for some in the world but for others it will be catastrophic."

EMISSIONS, EMISSIONS, EMISSIONS

In terms of climate change policies, Bek says reducing carbon emissions must be a priority. "And this will require cross-industry work to balance issues such as air-freight versus producing out of season flowers in European greenhouses. It is vital to get ahead of the game rather than responding to crises. Change must be meaningful and not marketing-spin. There has to be an awareness that the policy environment could shift markedly against 'non-essential' items with a high carbon footprint. I was told very bluntly by a leading carbon footprint expert that flying flowers around the world was not acceptable! The industry needs to get ahead of the game before such views take over the policy space." If business success depends on knowing your numbers, the question is whether any scientific research is pinpointing the global ornamental

'DON'T JUST
KICK THE CAN
DOWN THE ROAD'



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PHOTO: DIMITRIOS FOS

horticulture's contribution to climate change?

"Unfortunately, I do not have such information to hand. I would be very wary of such data as there would be a great many assumptions made in its calculation and technologies are changing rapidly. However, the studies I have seen generally point out that any form of production that involves heating or flying is going to be in the wrong territory with respect to greenhouse gases. Horticulture is intensive and by definition will have disproportionate impacts. Ornamental horticulture is a thornier issue than food production as one can debate whether the products are 'essential' and therefore what degree of justification there is for producing negative impacts on climate change. My view is that the industry needs to tackle this head-on and to not only look at ways of pushing more environmentally sound production and supply chains but also to really promote forms of horticultural practice that benefit the environment. Encourage people to plant trees and shrubs. And stop promoting clearly negative products. My personal bugbears are plastic grass and plastic pseudo plants. The industry can and should promote itself as part of the solution."

THE ELUSIVE GREEN CONSUMER

Bek's work also involves helping British growers to develop the market for more seasonal flowers. The pertinent question is whether local always means more sustainable? "No! Everything is local to somewhere! Unfortunately, the word 'local' has come to encapsulate many properties

and meanings. In reality it does not always stand up to scrutiny. Just because something has been produced locally does not mean that it has been produced and supplied sustainably. Flowers grown in heated greenhouses with inefficient irrigation systems and topped up with lashings of fertiliser grown in peat cannot be considered sustainable, even if they are grown next door! We must take a holistic approach. Being local reduces carbon usage through travel and provides local employment. But the overall impact may not be sustainable. We are involved in work with smaller scale flower producers in the UK to discuss ways of ensuring that local does mean sustainable. People have been engaging very closely with the project and are keen to ensure that they are sustainable in a holistic way. They also feel that this matters to their customers."

Speaking of consumers, Bek agrees that there is such thing as an elusive green consumer, responsible for the well-known gap between the values that people claim to hold and their actual behaviours. "But there is a clear and growing 'green' market. I do not see this slowing. As people become more aware of the issues so their behaviour will change. The growth of B Corporations* is a hugely significant trend – businesses nailing their sustainability colours to the mast and saying 'come on then, scrutinise us'. This is a massive behavioural shift in capitalism. And we can see big shifts occurring in the world of venture capital, where some big players now look very carefully where they will put their money in terms of sustainability issues."

David Bek (third from left) is frequently invited as keynote speaker as in 2019 when he gave a presentation at AIPH's Sustainability Conference.

MEETING THE SDGS

Bek's research aligns with the UN's Sustainable Development Goal 12: 'Ensure sustainable consumption and production patterns'. He says, "Our research takes a 'whole supply chain' approach, examining activities, attitudes and behaviours at different points in the life cycle of products. Horticulture, in its widest sense, can be a big contributor to meeting the SDGs and providing cheap, accessible food, providing employment and other necessities. There is a whole debate to be had about how recreational horticulture needs to shift and be real leaders."

PEOPLE, PLANET...BUT WHAT ABOUT PROFIT?

True sustainability should focus on the famous triple bottom line People Planet Profit. Do climate change policies and measures and sustainable production undermine or improve the financial results of flower farms? "Well, done properly it should improve the financial bottom line. Reduce energy usage equals cost savings...maybe not immediately due to capital investments but in the medium term. I have interviewed farm managers in South Africa who have been pleasantly surprised by the cost savings resulting from sustainable practices. Sharing good practices is key so that people do not have to experiment and learn from getting it wrong first time. Frankly, it is in everyone's interests to make the shift."

From a consumer's perspective, values, ethics, concerns and beliefs may be necessary for making life decisions but perhaps never will be when you are picking your flowers and plants. What does Bek think? "I disagree, and there are plenty of florists who will disagree! More and more folk are bothered, and I think the flower growers/sellers who decide to be at the vanguard of change will reap rather handsome dividends. People want to feel good about their choices – well, what could be better than a nice bunch of flowers that improves your day and which genuinely makes the world a better place? The industry needs to be bold."

LVG Heidelberg screens bedding plant range of drought tolerance

German breeder and propagator Selecta One has teamed up with research institute LVG (Staatliche Lehr- und Versuchsanstalt für Gartenbau) in Heidelberg to find out how drought-tolerant their bedding plant varieties are. Surprisingly, their popular lines in Calibrachoa and Petunias, species which are identified as water demanding, perform well with about 50 per cent of the water content required to maintain them in good condition.



Calibrachoa 'Rave Pink '16 after several, dry spells throughout the summer in week 36 (end of trial).

AUTHOR: RON VAN DER PLOEG PHOTOS: LVG

The summers are getting hotter and drier. This climate change is having an increasing impact on the horticultural value chain. Stakeholders from within the amenity horticulture and landscaping sector, but also consumers will be increasingly preoccupied with questions such as: What can I do to save water in a landscape or garden? And which plants will suffer most if they are not irrigated every day in the summer?

SUSTAINABLE AND BIODIVERSE LANDSCAPES AND GARDENS

RHS research found that gardeners use about two-thirds of the

domestic water supply during hot dry spells. This huge demand is hard to sustain in a drought so, not surprisingly, water companies encourage gardeners to do their bit to help reduce their usage. Selecting plants that not only are drought-tolerant (once established), but also are non-invasive, long-lived and disease and pest resistant may contribute to develop more sustainable landscapes and gardens. At the same time, there is a lot of interest in using plants to enhance biodiversity in landscapes and gardens. Plant breeding plays a vital role in creating a more sustainable and biodiverse horticulture, and is partially driven by changing consumer perceptions and behaviour.

LVG HEIDELBERG TRIAL

In responding to these developments and trying to answer the drought-related questions, Selecta One, in cooperation with the research institute LVG in Heidelberg, screened part of its bedding and balcony range of drought tolerance. The primary goal of the trial was to understand the effect of drought on their growth, metabolism and development while identifying the genera and varieties that can be cultivated with 50 per cent of the water content which supposedly is required to maintain them in good shape.

At the beginning of the trial last summer in week 18, researchers planted up 1-metre long window

Average temperature outside and amount of rainfall July-August 2020 - Location: LVG Heidelberg, Germany

Max. amount
rainfall (mm)

Average outside
temperature
(°C)

Average outside
max. temperature
(°C)





boxes using 83 varieties from 24 different genera. Table 1. The planters in the field contained a peat/clay/wood fibre mixture. Osmocote 8/9 M was added using a 3kg/m³ formula. Because of the use of controlled-release fertiliser, plant were re-fertilised with mineral liquid fertiliser in the last four weeks of the trial. The 'Stressed plants' received low water treatment and grew on until the end of the trial in week 37. In terms of average outside temperatures and precipitation levels in July and August 2020, consult graph 1 and 2, respectively. The trial used a comparison group, including the same genera and varieties. The control plants received daily a high water treatment. For example, genera such as Delosperma and Sedum were irrigated with a dripper flow rate of 2 l/h, Pelargonium and Phlox with 4 l/h, Calibrachoa, Osteospermum with 8 l/h, and Bidens and Petunia with 12 l/h. Both variants were regulated by a timed irrigation of 24 minutes for the control plants and 12 minutes for the stressed plants. Researchers defined the amount of water content basing themselves on plant characteristics and used a drip system which allowed for precisely

controlled water treatments within the same field. Table 2.

FINDINGS

Week 33 marked the end of long hot and dry spell. Many of the tested varieties suffered from heat stress and stopped blooming. At this point, consumers may have been tempted to empty their window boxes. Therefore, the final judgements in week 37 should be seen from two different angles. First, researchers distinguish the well-performing varieties which withstood the extreme heat in week 33. These include heat and drought-tolerant species such as Delosperma, Lantana, Pelargonium, Portulaca and Sedum. Surprisingly species known for being water demanding such as Calibrachoa and Euphorbia hypericifolia also performed well. If consumers are willing to accept poorly looking plants in their window boxes due to low watering during a heat spell, Convolvulus, Dianthus, Gaura, Petunia, Osteospermum, Sutura and Verbena varieties too may join the list.

The plant scientists from Heidelberg evaluated the trial on criteria such as "overall impression" and "irreversible plant damage". Table 3. The evaluation table published by Selecta One and LVG Heidelberg highlights the varieties that were rated good to very good between week 24 and week 37. Sebastian Mainz (senior trade marketing manager at Selecta One says, "Astonishingly we found that next to the well-known drought tolerant Sedum and Delosperma, even varieties within our range of calibrachoa, for example MiniFamous® Uno Double 'LavTastic', 'Rave® Pink '16' and PinkTastic® and Petunia such as 'NightSky®, 'Famous Laser Pink' and 'Royal Sky' defied the drought and were rated good to very good grown on with only 50 per cent of the optimum water content. The test results will serve to bring our drought-tolerant varieties under the attention of growers and end-consumers who are specifically asking for them."

Overview of the trial set up (week 35/2020) at LVG Heidelberg.

Table 1: Trial set up and evaluation parameters

Date of planting in window boxes (1 m length)	Week 18 5-6 plants each window box Depending on species and variety	Week 37 end of trial
Irrigation	1 x watering at 6 p.m., Monday - Sunday Control via automatic time - "Control": 24 Min - "Drought stress": 12 Min	- No timed irrigation in case of continuous rain. - Scheduled watering in case of small showers. - Realization with rain sensor

Table 2: Defining the amount of water content

Netafim "CNL" - Dripper capacity (l / h)	2	4	8	12
Control (l / day)	0,8	1,6	3,2	4,8
Drought stress (l / day)	0,4	0,8	1,6	2,4
Species	Delosperma, Sedum	Convolvulus, Dianthus, Euphorbia, Gaura, Impatiens, Lantana, Pelargonium, Phlox, Portulaca, Salvia	Calibrachoa, Diascia, Leucanthemum, Lobelia, Lobularia, Osteospermum, Sutura, Verbena, Xerochrysom	Bidens, Petunia

Table 3: Evaluation

Evaluation	1 to 3 x per week Monday, Wednesday, Friday	- Irreversible plant damage - Wilting symptoms - Leaf and/or flower shedding - Flowering abundance - Flower size - Growth habit - Overall impression
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Horticulture plays its part in reducing water use

The combined effects of the increasing world population and predicted climate change is going to see more people feeling the impact of water scarcity – even in regions you would not normally associate with water shortages. But horticulture is playing its part in reducing water use, as a session of GreenTech’s online conference in October heard.

“Water tables are dropping, for instance in North Africa and Asia, as too much water is taken,” said Luuk Tetteroo, product manager for water treatment at Moor Filtertechniek, part of the Dutch Van der Ende Group based in the Netherlands. You may think enough rain falls in the Netherlands and elsewhere in northern Europe to more than meet that region’s demand, but these countries too are suffering intermittent periods of drought. And water levels in underground aquifers are falling.

AUTHOR: SPENCE GUNN

MORE EFFICIENT WATER MANAGEMENT SYSTEMS

With the risk of not having enough water to go round, governments are introducing limits on how much growers can extract and rules on what greenhouses can discharge. “That’s forcing growers to be more efficient with their water,” he said. Significant progress is being made in water use efficiency, however. Taking tomatoes as an example, Micha van Nieuwkerk, chief sales officer at Van der Ende Group, said producing 1 kg can require 200 litres of water. With modern greenhouse technology, it’s now possible to

grow the same amount using just 4 litres.

WATER OF APPROPRIATE QUALITY

Adequate water supplies are essential for the production of crops. But if there’s not enough rain to meet your crop’s needs, however low that might be, a second and even third source is required and then it may not be of a good enough quality, even if it is tap or drinking water. “It can have too high a level of salts, particularly sodium, and that needs to be treated,” said Tetteroo. Systems to treat water with high salt levels by reverse osmosis have long been available, and Van der Ende Group offers various models

with different capacities. Its latest model, the Nexus High Performance Reverse Osmosis (HPRO), has been designed to be more efficient, not only in how much water is recovered but also in the energy to run it. “The biggest difference between conventional reverse osmosis and HPRO is efficiency,” said Tetteroo. “Most systems run on a water recovery rate of about 60–70%. With HPRO, this is 85–95%, so you can save as much as a third on ‘feed’ water. The actual numbers depend on the composition of the water.”

SMARTER TECHNOLOGY

Higher water recovery rates mean less effluent to dispose of too. The HPRO also uses 30 per cent less energy and needs less of the antiscalant chemicals that prevent salts precipitating inside the system. “The machine’s efficiency is in part down to the fact it’s ‘smarter’,” said Tetteroo. He added, “It adapts its operation automatically to the composition and temperature



Most systems run on a water recovery rate of about 60–70%. With HPRO, this is 85–95%, so you can save as much as a third on ‘feed’ water.



of the water, and continuously measures the state of the membrane. For the grower, this results in less maintenance and lower operating costs.”

GROWER TESTIMONIALS

Van der Ende Group has already sold several HPRO systems around the world, including to Gebroeders van Duijn, an expanding business running three nurseries specialising in aubergine production in south-west Netherlands. “When we started this company we only used rainwater,” said Jan van Duijn. “In dry summers, we used tap water. The summers are more dry now, so we need more tap water which [in the Netherlands] has a lot of sodium in it.” With more water recovered by the HPRO compared to conventional systems, the

company can save on the amount of tap water it draws off, which is paid for by the cubic metre.

Van Nieuwkerk points out that where a nursery relies on ground water, the return on investment is around two-and-a-half years, depending on your water and electricity costs and the size of the system. For tap water, as in Van Duijn’s case, it can be as little as a year.

For Van der Ende Group, however, which won GreenTech’s 2020 sustainability award with HPRO, the new technology is about more than just saving money.

“It reduces a grower’s water and carbon footprint,” Van Nieuwkerk says. He concludes, “It’s important for the future to close production cycles, and this system is a big step forward with that.”

WATER: WHAT IS AT STAKE?

- Of all the water on earth 97 per cent is saltwater, leaving a mere 3 per cent as fresh water, approximately 1 per cent of which is readily available for our use.
- Agriculture (and thus its sub division horticulture) accounts for 70 per cent of water use worldwide
- Climate change is projected to increase the fluctuations in precipitation and surface water supplies.
- The world’s water quality is likely to deteriorate in many regions due to polluting activities, fertiliser run off, salination caused by rising sea levels and water supply changes.
- Farmers in different regions will face increasingly fierce competition from non-agricultural users due to the rising urban population density and demand from the energy and industry sectors.
- Agriculture holds important keys to tackling water scarcity.



TAILORING APPROACHES

Natalie Porter is the business development manager at Porters Fuchsias (established 1985), a family-run wholesale bedding plant grower based in Formby, just outside Southport, on England’s North West Coast. The company owns the Happy Plants garden centre brand, including 99 per cent homegrown grown on-site plants.

“If I’d have asked the people what they wanted, they would have said ‘faster horses’” – Henry Ford

Having made acquaintance with our newest consumers, we can tailor our offerings by balancing what they think they want with what they actually need to thrive with their new gardening hobby.

Whilst we cannot account for every potential sub-division of a new gardener, social media quickly uncovers two, distinct, variations. There are those whose new-found interest stems from a love of houseplants (Plant Parents), and those for whom it originates from house-prouddness (Garden Decorators).

For the Plant Parents, this might mean putting together ‘How To’ videos for a particular project, linked to a shopping list of required components. For the Garden Decorators, it is more likely an instant impulse, ‘here’s one I made earlier’ style solution in line with current colour trends. For both, tailoring our offerings to fit around their recommenced commute will be vital.

Aligning ourselves with our new customers’ lifestyle in this way, then nurturing them through their aspirations offers our best chance of keeping them engaged. To do so is as much an opportunity as an obligation.

Retaining lockdown gardeners may offer a long-overdue opportunity to command a stronger margin from our businesses. However, these consumers are not beholden to the perceived ceiling prices of our pre-existing customer, who battle every penny of price increase (our 1996 catalogue shows many prices higher than present).

A prime example can be seen through a company called Growbar. Market value for 70 sunflower seeds seems around £1.35, meaning price-per-seed below 2p. Growbar takes 15 such seeds, embed them in a tiny block of coir, wrap it in pretty packaging and market it like an artisan chocolate bar. Through gifting sites such as notonthehighstreet.com, they command £12 per bar. The equivalent of 80p per seed and a 4000 per cent mark up.

The product is visually appealing but also promises easy success. The imagery, presentation and choice of market spin an inexpensive commodity into something that feels far more expensive: a prime example of how these new customers could offer an escape from our financial compression.

We must appreciate that any such success lies as much in the hands of the marketeers as the horticulturists.



PORTUGAL HAS THE RIGHT CONDITIONS FOR A GROWING MARKET

Reporting on Portugal's domestic production, including figures is not an easy task as reliable data is limited and not always readily available. That is why FCI is happy to have teamed up with the country's leading trade association for ornamental horticulture, APPP-FN.

AUTHOR: RON VAN DER PLOEG
PHOTOS: ISTOCK AND APPP-FN.

Established in 1982, the Portuguese Association for Ornamental Plant and Cut Flower Producers (*Associação Portuguesa de Produtores de Plantas e Flores Naturais*) is the most potent voice in Portugal's ornamental horticulture industry. It has 400 members that span across the production chain. This list includes producers of nursery stock, garden plants, houseplants, cut flower and cut foliage, in total representing more

than 80 per cent of Portugal's ornamentals production. The primary purpose of the association is to raise the profile of Portugal's ornamentals sector, to elevate a dynamic industry by transforming the environment in which growers operate and by defending its members' interests. Since 1987, APPP-FN organises its annual trade show Lusoflora that is known for being Portugal most significant trade exhibition for ornamental horticulture. It

serves as the ultimate showcase for new products and services and as a platform to share knowledge, friendships and research findings. In 2019, the 32nd edition of the Lusoflora show took place in Santarém from 22-23 February, attracting 73 exhibitors and 750 trade visitors.

INDUSTRY INDICATORS

According to APPP-FN's president Victor Araújo and Secretary Paula Vilanova there are an estimated 1,010



agricultural holdings in the country that dedicate themselves to the commercial production of flowers and plants. APPP-FN stresses that this official figure is part of a much broader, nationwide census carried out in 2012 by the *Instituto Nacional de Estatística* (INE).

That same data reveals that Portugal has 1,365 ha dedicated to ornamental horticulture, of which 564 ha is used to cultivate cut flowers, 185ha for cut foliage and 617ha for ornamental plants. In 2019, the total sales (turnover) of Portugal's flower and plant industry was an estimated 602 million euros.

GEOGRAPHICALLY PERFECT

Located on the western coast of the Iberian Peninsula, Portugal has its proud heartland of cut flower production: the Alentejo region, situated in the southern part of the country. Montijo and neighbouring Alcochete are blessed with a benign climate and good soils, and occupy the left bank of the Tagus, minutes from Lisbon. Both towns are the region's most significant cut flower production clusters.

In the Centro region (Região do Centro) or Central Portugal and the Algarve, the most southern part of the country, the fertility of the

soil and the climate provide ideal conditions for growing nursery stock and Mediterranean exotics. In terms of land prices, it is not so much the land as the location that adds value. The area in the interior is the most affordable. The Portuguese government created The National Land Exchange, managed by the Ministry of Agriculture. The purpose of this instrument is to facilitate access to land through its provision – particularly when it is not being used – as well as through better identification and promotion of it on offer. The land exchange makes land with agricultural aptitude owned by private entities, the State, local authorities, or any other public bodies, available for lease, sale, or other trades.

LABOUR

The sector is a significant employer with an estimated 5,000 people directly employed on a full-time equivalent (FTE) basis. This data includes both unpaid and paid labour.

A Portuguese flower farm employs on average five to six people per hectare. The production of ornamentals is a labour-intensive activity. In Portugal, skilled labour is usually well-paid, but

it is hard to recruit agricultural workers, especially near the big centres. Women represent half of a company's workforce in this sector. APPP-FN estimates that wages represent 40 to 45 per cent of the flower farm's turnover.

GROWING MARKETS

The primary focus of Portugal's flower and plant industry is on domestic sales. APPP-FN sees a change. Over the past few years, a number of Portuguese growers have unveiled ambitious and dynamic strategies to conquer markets abroad. It is worth mentioning Portugal exported 12.2 per cent of its flowers and ornamental plants in the first quarter of 2020. But then the coronavirus pandemic started to rapidly spread across Europe followed by a sudden and dramatic drop in consumption leaving companies with the hard decision to compost a significant part of their production in situ. We all know that this did not just happen in Portugal, but everywhere around the world. In terms of Portugal's cut flower imports, the primary markets of origin are The Netherlands (47 per cent, Spain (34 per cent), Italy (8 per cent) in 2018. They represent 89 per cent of the total of imported ornamentals into Portugal. Below is the current tabulated data.

In providing some key facts and figures in terms of export values, export volumes and export destinations, APPP-FN outlines that last year, the export value increased from 78 million euros in 2018 to 96 million in 2019 – an increase of 22 per cent. The main markets are Spain, France, Germany and the UK. The trade association holds a firm belief in the country's export potential, stating, "This sector was registering impressive growth and it can continue to

*The Portuguese climate favours ornamental production (pictured is a crop of *Pieris japonica*) and the nursery sector can grow and export more.*

Portuguese Trade Balance of Live Plants and Floriculture Products (thousands of euros)

	2015	2016	2017	2018	2019
Exports	64976	76839	79174	78760	96809
Imports	87093	103182	123899	126791	128622
Balance	-22118	-26343	-44725	-48031	-31813

Source: APPP-FN

grow and increase export sales. However, it is a fragmented sector with a low concentration of production. The problem is also that small-sized businesses dominate Portugal's ornamental horticulture landscape."

Among Portugal's top cut flower crops in 2019, are Protea as the most representative cut flower, followed by the rose, carnation, gladiolus, lilium, gerbera and chrysanthemum.

The strategy used by most nurseries (young plant businesses, plant nurseries and flower farms) is to produce a 'mix' of species / varieties to avoid seasonality. National producers have registered an evolution towards higher plant quality, greater diversification of products and markets, and better consumer information.

THE WAY TO MARKET

There is an estimated 20 per cent of cut flowers sold through the traditional flower wholesale market. The flow of cut flowers takes place first for wholesalers (40 per cent), then for export (20 per cent) and then for florists (19 per cent). In the foliage sales, exports come first (43 per cent) and secondly the sale to wholesalers (37 per cent). In ornamental plants, 39 per cent of the product sells to garden centres and 30 per cent exports. In terms of the market, the

commercialisation of cut flowers is dominated by wholesalers and that of ornamental plants by gardening centres, however sales to the mass market continue to grow both for cut flowers and potted plants.

This market segment can use a better organisation of production, logistics and marketing to increase dimension and to compete in the internal and foreign markets. There is no 'Dutch-style' flower auction in Portugal, although in the past a group of Montijo-based flower producers looked seriously into that business model.

PRODUCTION

Exploring the geographic concentration of the sector further, one can see that the current production concentrates in Alentejo, Algarve and Entre Douro e Minho, close to the coast, where the climate is mild. Plus, the coastal areas are closer to the main centres of spending such as Lisbon and Porto. Montijo/Alcochete has evolved into the country's largest gerbera producer, with around 200 ha of greenhouses. Combined businesses have an output of half a million stems per day – of which 15 per cent is exported. The production area in Montijo has stabilised in recent years. Still, there have been gains in production and quality because of investments in new infrastructures and technologies (e.g. hydroponics,



Quintessential Portuguese: hydrangea.

Field production of Lavandula.

taller greenhouses with metallic structures and improved climate control). However, production remains limited in the winter period due to low temperatures and economic limitations (heating installation and maintenance costs).

Important to add is that in the archipelagos of Madeira and the Azores, ornamental production is also significant and is partly export-orientated. In the Azores (Terceira), there is an organisation of 17 flower producers (32 ha) producing floral products from the family of Proteaceae, mainly sold to the Dutch market.

The young plant business has suffered some changes in the last 10 to 15 years in Portugal. The appearance of two specialised propagation companies allowed the market to be more organised (and specialised), with more access to quality material at affordable prices. This factor allowed the appearance of more specialised and more efficient producers, some of which are exporting to various European partners (Spain).





SPENDING HABITS

In Portugal, the date of 25 April, is celebrated in memory of the 1974 military coup in Lisbon which overthrew the authoritarian Estado Novo regime. Red carnations sell on this day as a symbol of that revolution.

In terms of the home market, it is necessary to raise awareness among the public about the values and benefits of ornamental horticulture in terms of economy, environment, biodiversity, health and well-being. In the past few years, there has been stagnant spending on the internal market for garden plants and cut flowers, due to a decrease in public and private gardening and a stabilisation of expenditures for flowers. Prices have been stagnating for a decade on the entire sector, although there was an increase in costs factors of production. In the last two years, the economic situation of the country has been better, and that reflects on internal spend.

The latest known data based on Portuguese spending habits on cut flowers was from 2016 when the national spending per capita was: flowers and foliage 15 – 20 € and ornamental plants 8 €. It has

increased a little bit in the last few years.

PROFITABILITY

Commenting on the profitability of Portugal's floriculture and nursery stock business, APPP-FN says that the production of improved ornamental species is still minimal. New gerbera and camellia cultivars with better looks, shelf life and disease resistance are some of the exceptions. Also, the participation of Portuguese business groups in European breeding programmes (*Cupressus sempervirens*) helps to increase profits.

The use of new cultivars which are more resistant to pests and diseases, and have different colours and shapes, as well as good quality nursery material (certified variety or cultivar, guaranteed health, well-rooted, hardened), are essential to the success of ornamental production. They minimise post-plantation losses and replanting and limit excessive heterogeneity, ensuring better growth and higher yields per unit area.

Meanwhile, transport within Portugal is a high cost to growers. The prices are fair, but the routes are insufficient. Some producers

have set up a road distribution system.

WHAT'S NEXT?

Looking forward, APPP-FN surmises that numerous factors can condition the future even with the crisis. "Having flowers at home, and gardening has shown to be an essential activity in people's lives, and we hope that will continue. The concept of gardening and the use of it is continually evolving, and it is up to the producer and the entire industry to support the change."

The future depends on greater cooperation between different sector parties. This action will allow not only gains in business dimensions but also the ability to share knowledge, which can improve the competitiveness of the sector."

The Portuguese climate favours ornamental production and the nursery sector can grow and export more. However, the constraints to consider are environmental (climate change, water scarcity and limitations in the use of organic substrates) and economical (increase in fuel prices and factors of production, and price stagnancy in the intern market).

APPP-FN concludes, "The future depends on a greater cooperation between different sector partners. This approach will allow not only gains in business dimension, but also the ability to share knowledge, which can improve the competitiveness of the sector."

With the kind collaboration of Victor Araújo, president APPP-FN and Paula Vilanova, Secretary at APPP-FN.

Montijo/Alcochete have evolved into the country's largest gerbera producers, with around 200 ha of greenhouses.

Greenhouse production of chrysanthemum.





Floricultural *terroirs* to help restore France's bruised image

**French Flower Day discusses
the state of the country's flower industry**

(PHOTO CREDIT: FLEURS D'ICI)

Online flower delivery company Fleurs d'Ici is not only tapping into the locally produced flowers trend but is trying to boost the country's Covid-19 hit cut flower production with its webinar on 17 November entitled 'France to become a flower superpower'.

It is safe to say that 2020 has not been a kind year for many industry professionals. And this applies in particular to French florists who for the second time this year have to remain closed until at least 1 December as part of France's second lockdown restrictions announced by President Macron on 28 October.

COVID-19 IMPACT ANALYSIS

Referencing his organisation's Covid-19 impact analysis (last updated in September 2020), Mikael Mercier, president of industry body Val'Hor and part of the webinar's line-up of influential speakers, said that March 2020 saw a 35 per cent drop in revenue compared to the same month in 2019. This result is accurate for all actors within the value chain, as uncertainty then caused a wave of cancelled orders. The perishability and seasonality of produce led growers to significantly trash volumes of unwanted flowers. Furthermore, adding to their misery has been the lack of government support and the absence of any aid package. With a full month of lockdown in April 2020, revenues dropped by 28 per cent. When the country began to lift its lockdown cautiously, the market showed signs of recovery with a minor drop of two per cent in revenue in May. In June, florists and garden centres and other sales outlets reported buoyant sales up 17 per cent from 2019. However, this sales figure was unable to cover the massive losses suffered during the lockdown. Eventually, the period between March and June 2020 saw a 14 per cent drop in revenue across the horticultural supply chain compared to the same period in 2019.

FLORISTS AND WHOLESALERS BATTERED MORE HEAVILY

Val'Hor's Covid-19 assessment study reflects the view of 2,000 industry

professionals. Mercier stressed that florists and wholesalers are battered more heavily with a 40 per cent and 37 per cent drop in revenue respectively during the three months. Business for cut flowers (peonies from the Southern Var department) also contracted significantly. Sales of potted plants and nursery stock suffered less. Mercier noted, "The first results of the study came in by July with 15 per cent of florists announcing they had stopped their business or where about to close their doors. Following the second lockdown we anticipate 20 per cent of florists to have ceased operations." Cut flower grower and co-founder of growers' alliance Fleur Française, Hélène Taquet reported that businesses are better adapting during the second lockdown. Sales benefit from a more

'evenementiel', the events industry is creating most of the headache. Couples rethink their wedding arrangements and other celebration events continue to be cancelled and postponed. Celebration flowers represent 20 per cent of the global demand for cut flowers and the pressure is predominantly felt in the big cities. All hopes are now set for 2021 which hopefully will see a boom in weddings."

LOCALLY GROWN FLOWERS

Equally offering glimmers of hope is the demand for locally grown French flowers, boosted by the coronavirus pandemic. Helping consumers, mostly Millennials, in their search for more meaningful, eco-friendly, and socially responsible flowers are the Fleurs de France and Fleurs d'Ici labels.

Former French agriculture minister Stéphane Le Foll unveiled the first one in October 2014. Fleurs de France is a public label, owned by industry body Val'Hor and aims to help consumers make informed floral purchases and ultimately encourage them to buy French flowers and

DURING THE SECOND WAVE OF COVID-19 CASES, FRENCH HYPERMARKETS WERE ORDERED TO CLOSE THEIR NON-ESSENTIAL DEPARTMENTS

dynamic business environment compared to the first lockdown, she noted. However, looking at the broader picture, Taquet thinks this time the second wave of coronavirus cases is heavily impacting major cut flower growers such as Bigot and Froger. These growers deliver their flowers straight to the doors of French hypermarkets, which were ordered to close their non-essential departments on 1 November.

EVENTS INDUSTRY

Mercier added, "Thanks to the financial aid package and click and collect options for customers, around 80 per cent of florists continue to stay in business realising one quarter of their usual turnover. The demand is there, but the

plants. To date, 230 growers have Fleurs de France label approval, which represents half of France's total production of ornamentals (including all product categories). Conversely, Fleurs d'Ici is a private label owned by former BBC reporter Hortense Hareng and Chloé Rossignol, who previously worked as a category manager in garden retail. Both Hareng and Rossignol are adepts of the slow flower movement whose chief motivation is to produce and trade environmentally and socially responsible flowers only. Fleurs d'Ici, at its core, is an online flower delivery company using a much-debated style of storytelling and blockchain technology to connect a

group of 500 artisan growers and florists, who, they say, want to work differently.

BLACK AND WHITE ARGUMENTS

At the webinar's first round table debate, Rossignol stressed that Fleurs d'Ici is based on the idea of 'inclusion by connecting growers and florists instead of opposing them to each other'. That may apply to the company's inner circle of businesses. From a more global industry perspective, however, the company's remarks on toxic imports, slave wages and heavy carbon footprint were frowned upon as being ungrounded and 'discord-sowing'.

While the content on the Fleurs d'Ici website continues to attack the global flower industry with poorly polished words, both Hareng and Rossignol softened their voices at the webinar. They were brave enough to invite Ron Jeronimus, marketing manager of the Paris-based branch of the Flower Council of Holland, the marketing arm of the Dutch ornamental horticulture industry.

While frequently interrupted via the chat by attendees expressing their anger that the webinar should talk French and not Dutch flowers, Jeronimus explained why he was there. It allowed him to react to what he calls the often 'black and white arguments' used by Fleurs d'Ici. Plus, he has a keen interest in all kind of marketing efforts aimed at building strong customer relationships.



Pride in peonies: France's southern Var region is the epicentre of peony production with the SICA Marché aux Fleurs d'Hyères flower auction and wholesale market actively managing the aggregation, distribution and marketing of flowers.

*Ron Jeronimus
Marketing
Manager France
at Flower Council
of Holland.*



To reconcile different points of view, Jeronimus went on by saying that France is far from being a saturated marketplace. In a country with a €62 pro capita spending figure on flowers and indoor plants (sympathy flowers and outdoor plants not included!), there is still much potential for growth for flowers from home and abroad.

He does not doubt that the Covid-19 pandemic has given French shoppers new reasons to buy local. Out there is a myriad of campaigns all delivering the key message that locally sourced flowers are good for local economies. "But we will not see a back to the land market only. Flowers have become a global affair, an ever-changing industry, especially when it comes to production techniques and modes of transportation and product preservation. If today the air miles debate is surrounding imported flowers, tomorrow sea transport of flowers may be adding a new dimension," said Jeronimus.

Dutch greenhouse growers are adapting sustainable growing techniques and renewable energy sources to reduce their environmental impact. Jeronimus commented, "The French market can absorb both domestic and imported flowers. The bottom line is that we need to continue to drive up demand and boost consumption. For this purpose, generic promotion is the right tool to use."

He asked himself whether, in a country known for its relatively

traditional spending pattern on flowers (weddings, celebrations funerals), shoppers will ask their florist specifically for local flowers. "Will it be worth a detour? Maybe for Millennials and new customers brought in by the coronavirus pandemic, but I am not 100 per cent convinced."

PRICE IS NOT THE ONLY DETERMINANT

Despite an apparent increase in demand for local products, many consumers perceive that locally grown flowers are too expensive and therefore financially out of their reach.

Maxime François, manager at floral wholesale company Fleurassistance, based at Paris' famed wholesale market Rungis, said, "The pertinent question is what determines the

price? I would say by the law of supply and demand. For an equilibrium market price requires more demand at the consumer's level."

'WE WILL NOT SEE A BACK TO THE LAND MARKET ONLY'

Price is not the only determinant, reacted Marie Levaux to François' comment. She is the newly elected chairwoman of France's national federation of horticultural producers FNPFP (Fédération Nationale des Producteurs de l'Horticulture et des Pépinières) and patio plant grower (Ets. Horticoles du Cannebeth) near Montpellier. Social needs and wants are equally at stake, said Levaux. Plus, an increasingly stronger curiosity of consumers to understand what is

behind the products they buy. Levaux also noted that there is a jungle of eco-labels while advocating a more prominent 'terroir' status for French flowers. This assignment would be a kind of floricultural Geographic Indication (GI) for flowers based on the idea that good quality flowers are the result of a combination of earth minerals, climate and human know-how that are specific to a particular region.

SUFFICIENT VOLUMES REMAIN A CHALLENGE

Subsequently, wholesaler François set out how short the company's downstream supply chain is with 80 per cent of their customers within a 200km radius and 20 per cent even within a 20km radius. He went on by saying that Fleurassistance prides itself on the wide range of cut flowers sourced from around the world and home, though the locally grown flowers have to date only a minor presence. "Of course, French flowers have our interest. To date, however, we only see limited volumes of early spring Ranunculus and Peonia arriving from the Var department. Sufficient volumes remain a challenge. In winter, for example filling one Danish trolley with French flowers is not easy." Mercier added that it is difficult to compete with the Dutch expertise in cold chain logistics allowing flowers to be transferred from farm

to shop within 24-48 hours. He continued, "What is more, the Dutch have secured a digital readiness in the supply chain which in the current pandemic is a critical need. Like it or not, but this is the reality. At the same time, the pandemic caused the slow flower movement to significantly gain momentum. Not only because of the presence of a more eco-conscious shopper but also, due to widespread disruption in the logistics chain of Kenyan roses for example."

ADVOCATING A PEACEFUL CO-EXISTENCE

Mercier, but also wholesaler François warned for not playing one industry off against another advocating a peaceful co-existence of imported and French flowers. It can be tricky to only point the finger at growers and traders from abroad. François noted rightly so that even the French are a vital part of the global flower community with renowned breeders such as Meilland and Delbard who offers African and South American growers their latest varieties with improved traits. Also, some French growers who have outsourced part of their production in, for example, Kenya. Marie Levaux of FNPHP observed that defining local flowers can be a daunting task, asking herself if these also include tropical flowers and cut foliage sourced from the country's overseas departments and territories (DOM-TOM).



CREATING A WORKING DEFINITION: WHAT IS LOCALLY GROWN?

Mikael Mercier was at hand to help to create a working definition of what a locally grown French flower is. He explained that production-wise, ornamental horticulture in France represents a turnover value of €1.4 billion across the cut flower, potted bulb, nursery stock, potted plants and cut foliage categories. Narrowing the revenue figure down to French cut flowers he estimates that 400 growers combined generate a turnover of €100 million with around five to ten per cent of all flowers sold in France now home-produced. In terms of traded volumes and per capita spending, cut flowers is an absolute cash crop.

From a FCI perspective there are two types of French flower farms: those who build on proximity B2C sales, field production and seasonal flowers. It is the type of company that is frequently run by a husband and wife team or 'ladies of the manor'-style entrepreneurs wearing flowery aprons and straw hats. A species which sometimes seems to be more enticed by the birds and the trees than the business model involved in producing flowers. A species which also easy to unmask when they mistakenly mention Venezuela or Peru as origins for imported flowers.

Sometimes they form a more organised and professional grower alliance such as Fleur Française which has 115 member growers and florists across the country. Its adherents commit themselves to grow and trade a minimum of 50 per cent of their volumes.

The second group grows their flowers in large greenhouses so that can cater for much bigger volumes year-round. These entrepreneurs usually team up with wholesalers to market their products.

An estimated 400 growers combined generate a turnover of €100 million with around five to ten per cent of all flowers sold in France now home-produced.



Val'Hor president Mikael Mercier (right), photographed in September when he was presented with a modernisation action plan to guide business development and technological progress of the ornamentals sector in France, warned for not playing one industry off against another advocating a peaceful co-existence of imported and French flowers.

Fifth generation of Osmocote features

ICL's fifth generation of Osmocote features the most significant innovation in controlled release fertiliser to date, combining optimised trace element availability technology with a secure, and controlled release of nutrients. Osmocote 5 not only allows growers to make informed decisions but also solves practical problems with plant hole dibbling.

AUTHOR: RON VAN DER PLOEG PHOTO CREDITS: ICL

Since 2011, the Osmocote brand is part of ICL, the global speciality minerals chemicals company. Gerard Klein Onstenk, International Marketing Manager and Global Category Manager at ICL told FCI, "A good product is not born overnight. Since Osmocote sparked a revolution in the horticultural industry in 1967 for being the first controlled release fertiliser, it has evolved into a trustworthy brand that has created strong relationships with growers through experiences. We simply cannot afford to gamble our reputation and break our proven performance promises."

SUPERVISED FIELD TRIALS

Klein Onstenk described how a multitude of supervised field



trials under relevant geographic and climatic conditions preceded Osmocote 5's 2021 debut. "Testing phase one started three years ago, followed by field trials in Europe and as far afield as Australia. We tested and retested in different ways, using different crops, potting mixtures, rates, longevities, and application methods. Next to the tests in our wholly owned in-house field trial stations, trials conducted at various European research institutes support our claims. And a validation process at factory level documented that both hardware and software of the machinery meet a set of defined requirements. Everything that could be tested was tested and we are now ready to ramp up production."

THE VOICE OF THE GROWER

As of January 2021, Osmocote 5 is readily available for purchase to growers across large parts of Europe and Australia, gradually replacing Osmocote Exact Hi. End. Klein Onstenk said that the voice of the grower has been a fundamental part of the innovation process. Challenge number one for the

grower is to create an environment that plants require. To ensure that plants get the nutrition they need, resulting in bigger, healthier plants that can demand a higher price at sale time.

"We developed a new technology to ensure plants receive at any moment in time an even more precise dosage of nutrients for optimum growth. In this approach, plants receive the lowest dose when they grow the slowest, the highest dose when they grow the fastest and a steady supply when they are in the finishing stage. The resulting S-curve provides the picture of how the nutrients should be applied during the different growth cycles."

SAFETY IN HEAT

Osmocote 5 has proven its performance under challenging circumstances with Australia putting the trialled plants to the ultimate test. "In Australia, temperatures reached 40°C plus and growers were pleased to witness how Osmocote 5's nutrient release remained secure and controlled. However, during hot spells you



A central pillar in optimising plant production by using Osmocote 5 is Optimised Trace Element Availability (OTEa).

most significant innovation to date



logically water your plants more frequently. To make sure enough Osmocote 5 power is left in the finishing stage, it is important to choose the correct longevity as is the case with all CRFs. For Australia, this is mostly 12 to 14 months while in Finland three to four months,” Klein Onstenk noted.

He iterated that the impact extreme heat has on Osmocote 5 does not go beyond the actual length of the hot spell. So, two weeks of high temperatures are equal to two weeks during which the release may be a little bit higher. But the remaining part of longevity will stay the same.”

TRACE ELEMENT AVAILABILITY

Another central pillar in optimising plant production by using Osmocote 5 is Optimised Trace Element Availability (OTE). Klein Onstenk remained silent about its exact working principles but touts the system as highly ingenious as it guarantees a readily available portion of trace elements daily. “And this is again a step forward when compared to what we have

The new Osmocote 5 is for use on a wide range of CNS, potted and bedding plants with special mention to evergreens and plants that require more nutrients in their second growth stage.

now. Trace elements are present in chelated form and their claw-like structure protects the nutrients and gives them more time to become absorbed.”

He went on by saying that the new Osmocote 5 fertiliser, that integrates well with wetting agents and other plant protection products, is not only technologically advanced but also user-friendly in terms of product design. “Osmocote 5’s forerunner – Osmocote Exact Hi. End – is fantastic once the prills are incorporated into the soil at planting time. However, the waxy surface of Hi.End’s second coating may clog the dosage machines used for plant hole dibbling. The new single-coated Osmocote 5 now offers the grower free-flowing granules that do not interfere on the function of the dibbling equipment. Osmocote 5 is an incredibly clean product.” Regarding Osmocote 5’s target market, Klein Onstenk noted that the new fertiliser is for use on a wide range of CNS, potted and bedding plants with special mention to evergreens and plants that require more nutrients in their second growth stage.

FREE UPGRADE

In global ornamental horticulture today, there is consensus on the reliable performance of Osmocote. Growers have good things to say about Osmocote’s dependability, and the brand proves to be as



There is 20 per cent more granules for better recognition while an orange bandage on top of the bag indicates that its content represents the fifth generation of Osmocote.

popular as ever. But it is safe to say that Osmocote is also more expensive outright when compared to other CRFs. Klein Onstenk said the product comes at an economical price, and Osmocote 5 is no different. “We offer growers a free upgrade to Osmocote 5 which will have the same price as Exact Hi. End and Exact Standard. Important detail is that Osmocote 5 will not replace all Exact Hi. End with half of its volume still be available this year. The choice to switch must be a free one. The idea is that growers who try the product out will be automatically convinced to use it on a regular basis.”

Depending on the product mix, Osmocote’s longevity varies. In keeping with Osmocote Exact tradition, a colour coating makes for easy recognition; red for three to four months, brown for five to six months, blue for eight to nine months and yellow for 12 to 14 months. “New is that the pigment is natural typically used as a food colorant. What is more, there is 20 per cent more granules for better recognition while an orange bandage on top of the bag indicates that its content represents the fifth generation of Osmocote,” Klein Onstenk told FCI.

Originally, ICL had planned Osmocote 5’s grand premiere for the 2021 IPM Essen show, which cancelled in November amid the second wave of coronavirus cases in Europe. The product launch will now be smaller but more creative in crafting Osmocote 5’s value proposition. Toward the end of the interview Klein Onstenk said, “It is in the trusted hands of ICL’s local sales force who meet growers face-to-face. During their one-on-one meetings they go through fertilisation plans and programmes and discuss the exciting new option for Osmocote 5. And in terms of building the Osmocote 5 brand our trusted peat suppliers who break bulk Osmocote when preparing their potting mixtures also play a vital role.”



Fourth-generation Ben Cross grows millions of stems of British Alstroemerias under three acres of glass in Walberton, West Sussex in the UK.

'Being a UK grower is like walking on a tight rope'

Crippling labour and energy costs, Brexit, Covid-19, and price-disturbing dominance of supermarkets: British flower farming can be a tough business. But British Alstroemeria grower Ben Cross, alias Alstroemeria Ben, is ready to 'Rock British Flowers'.

AUTHOR: RON VAN DER PLOEG
PHOTOS: CROSSLANDS FLOWER NURSERY

Fourth generation Ben Cross grows millions of stems of British Alstroemerias under three acres of glass in Walberton, West Sussex. His -granddad, a tomato grower, started trialling the crop in the 1970s. Cross recalls, "British Alstroemeria was an awesome sustainable crop to grow in the UK. Unlike a lot of other crops, it only needs 13°C at night so with the rise in heating costs it was seen as a great alternative crop to grow. By the 1990s, 100 per cent of our nursery was used for growing the British Alstroemeria."

A BIT OF BRITISH BLOOMING HISTORY

In the UK, there is currently around 118ha dedicated to protected cut flower production. Back in the 1970s, fresh cut flowers came mainly from Britain. Cross says, "There used to be hundreds of acres of land dedicated to British Alstroemeria in the UK but now there aren't many larger growers of any cut flowers left in the UK." Instead of expanding cut-flower production, there has been very little encouragement for British growers since the rise of the 'Flying Dutchmen', backed by a well-oiled

logistics system, emerging producer countries in Africa and South America, a relatively low per capita purchase of cut flowers, compared with other western European countries, as well as high energy and labour costs.

Cross says that over 90 per cent of cut flowers bought in the UK are imported. "Of course, the UK does not produce enough flowers to sustain the demand. But, post-Brexit, hopefully UK growers can be better supported and will start to expand and grow in size."

A FULL-COLOUR RANGE

Crosslands Flower Nursery has a full-colour range of British Grown alstroemeria available all year round. "The only colours we don't grow are blue and black. The customers used to want red at Valentine's Day and red at Christmas, but now there is a



WHAT WILL 2021 BRING?

Jaap Kras is an industry veteran, plant breeder's right expert horticultural consultant and former publisher of FCI.

demand for white alstroemeria for these occasions. At present, we just grow the regular styles of alstroemeria but are thinking about trialling some of the 'Köns' spray-like Florinca types with up to 30 buds per stem."

Spray alstroemerias such as Florinca and Charmelia (first introduced in 2014) have branches bearing many small and mainly open flowers. These are a shining example of how the alstroemeria industry continues to innovate with stem calliper, weight, and less thick foliage being an important criterion to consider.

Cross says the main thing he looks out for is that if a variety produces in good volume most of the year-round with little maintenance as possible. "That is the dream! But we grow over 50 varieties which is like growing 50 different types of flowers as they all behave differently throughout the year. So, at Crosslands we now have a good selection of varieties that cope best with the British weather."

BENIGN MICROCLIMATE

Most Brits spend ten months of their life complaining about the weather; Cross is the exception to this rule. "Crosslands Flower Nursery is situated on the south coast of the UK between the South Downs National Park and the English Channel. This location has a perfect microclimate for us; it is cooler in the summer due to the sea breeze and is warmer in the winter. We also have the best soil and light levels in the UK on the south coast so we don't need any artificial lighting and don't produce any light pollution, and the South Downs protects us from the prevailing weather."

BRAND RECOGNITION

Considering that the first alstroemerias – in English also known as Peruvian lily – made their debut only 50 years ago, it is interesting how the British consumer grew familiar with the flower. "The flower is very mainstream in farm shops, florists, supermarkets, letterbox subscriptions and even on tables in cafes and restaurants and a lot of people grow the garden varieties at home."

To market his flowers, Cross is an avid user of social media. "You can follow me on Instagram and Twitter @AlstroemeriaBen and on Facebook by searching for Crosslands Flower Nursery. Social media is where I do most of my marketing by giving the public informative videos on how we grow the crop and insights about life on the

It is hard to predict the future. Things are almost guaranteed to turn out differently than you expect, and the devil is in the detail. So, please do not take me too seriously and let me explain to you why. I am a music lover, as some readers of my column will remember. I love classical music, rock and roll, jazz, and songs from the 1950s, '60s and '70s. Hip hop is popular music with the youth of today, but as soon as I hear it, I turn down the radio, just as my father did when I was a young fan of the Rolling Stones. My hip-hop horror makes me realise that I am getting older. So be warned that my views may not be realistic to all ages.

Before looking at the road ahead, allow me to take a quick look into the rear view mirror. After the feelings of panic when governments everywhere were announcing their first lock-downs in the winter and spring of 2020, the floriculture industry has recovered remarkably well.

In Europe, from Easter onwards, prices were higher than ever before, with numbers larger than I can remember since the early 1960s, and demand was higher than supply.

During the coronavirus pandemic, people are spending much more time at home and taking a considerable interest in decoration, home styling and gardening. Garden centres are reporting one of their best years ever. Floral spending in Western Europe doubled. And flower growers here have faced less competition from Africa due to a lack of air cargo availability, so fewer African flowers were flying into the old continent. Growers in Africa suffered terrible losses, and local political unrest makes their lives not easier.

Colombian growers are filling a portion of the gap by exporting larger volumes of carnations, roses, and chrysanthemums, and to a smaller extent, a variety of other cut flowers to Europe. These Colombian flowers are often of high quality and abundant.

Apart from the growers, other stakeholders from within the African flower industry are now looking back on a tough season, and this applies especially to rose breeders facing many unpaid invoices.

Closer to my Dutch home, exporters fear the logistical difficulties involved with exporting to the UK after Brexit. More than any other product, perishables are sensitive to the expected long waiting times at the border caused by renewed custom controls with paperwork and licenses. It feels like we are back to the old days, with the new international trade processes that mean more time and money spent waiting at the ports.

In 2021, I expect shoppers in all other European countries to continue spending more money on flowers and plants at least until the whole population comes to move freely again and the catering industry and the theatres open. I expect the first trade exhibitions to happen will be the Greentech show and the Flower Trials in June. It will take some time before we are all vaccinated, maybe no sooner than August 2021. The floral industry will go back to normal. We all know that the first five months of the year are decisive with major floral holidays such as Valentine's Day, International Women's Day and Mother's Day taking place. I expect spring sales to be buoyant. Conversely, the summer season will be tough as I expect people to take up their travels, vacation and outdoor activities.

Fortunately, Covid-19 brought in new flower and plant shoppers – even the youngster who love hip hop. These are often the group that hardly spend money on ornamentals.

So, even if it sounds contradictory: we can expect an outstanding spring season with a high demand for flowers, potted plants, and bedding plants. That is, until the moment when shoppers fall back into their usual spending habits.

flower nursery. We supply not only supermarkets, but wholesalers, farm shops, florists, direct to the public, cafes and restaurants.”

POST-BREXIT

How floral consumer spending and behaviour will evolve and whether the UK's departure from the EU will lead to an increase in the country's area of protected cut flower production in a post-Brexit world are questions Cross finds hard to answer. At the time of writing, it is still unclear whether the UK and the EU will reach a deal or not. “At the moment I think if the UK gets a deal, there won't be a tax on imported flowers. So, it all depends on what sort of deal is agreed. We do anticipate Colombia will flood the UK market with zero-tariff alstroemerias. It is very uncertain times for sure. But Crosslands Flower Nursery has been established since 1936, so we have a lot of knowledge, but I do not know whether demand for British flowers will increase or not due to Brexit. We will have to wait and see.”

The same thoughts apply to the risk of post Brexit price pressure which may be caused by Dutch exporters who will have to find alternative markets for the chunk of flowers they cannot sell on the UK market.

BRITISH FLOWERS ROCK!

And to remain on the positive side: Brexit has created momentum for



Alstroemeria
'Orange Queen'.

his British Flowers Rock campaign. “We are reaching out to the public more and telling people about all the advantages there are to buying local sustainable flowers. Already the UK gets flowers from Kenya, Colombia, Ethiopia, and Ecuador and the carbon footprint is massive. So, there is even more reason to keep pushing my British Flowers Rock campaign.”

The British Flowers Rock campaign is all about championing British flowers and highlighting the exciting range of products around the country. Cross started it in 2014 after getting frustrated that no one at government level was doing anything to help growers. The campaign is also about backing the UK cut flower industry that has an estimated value of £80m, cut flowers grown in the open and under protection combined (Source: NFU Backing British Blooms 2016). Cross' campaign targets not only consumers but also government officials. “I hope that the campaign will at least serve to bring the challenges of cheap imports and bad labelling of flowers under their attention.”

SUPERMARKETS

Supermarkets are the principal outlet of cut flowers in the UK (56 per cent sales). Farmers often feel the squeeze of supermarket deals. Does Cross feel that too? “At the moment we are lucky that we don't reply on just supermarket sales. The supermarkets we supply have treated us ethically and fairly which is very important.”

While we are on the subject of supermarkets: Morrisons has bought UK outdoor plants supplier

Lansen Nursery, to offer more locally-sourced and home-grown British horticulture at lower prices. How does he perceive this?

“Obviously, it is good that they want to stock more British products, but it has to be done at a sustainable price so that it is future proofed. I don't really know about the outdoor plant market so I can't comment further.”

Alternatively, British flower growers can unite to service florists directly. A few years ago, a handful of large flower farmers created FloraBritain, to take their flowers direct to the florist's door. The suspension of operations was due to problems with delivery and cold chain issues (Source: NFU Backing British Blooms 2016). Does Cross feel the time is ripe to relaunch such initiatives? “Yes, surely it must be possible to get British Flowers to British Florists. I send around 100 boxes of my flowers a week out to customers around the UK.”

'WE NEVER STOP'

The cut flower segment undoubtedly is feeling much more pressure due to mass cancellations of weddings and other celebration events. “We have actually been very busy with more people supporting local businesses. Our sales have increased to the public via online sales, farm shops and supplying florists. Relief packages? I haven't had to look into any support packages.”

Covid-19 has increased consumer awareness and demand for seasonal British flowers. “I think there will be a percentage of people that go back to shopping at supermarkets etc, but I also believe there will be some people that stick to buying locally and supporting home-grown produce where they can.”

Ben is confident for the near future. “Well, we never stop! But being a UK grower is like walking on a tight rope! It is a case of do not look down and keep planning for the near future. I worked as a marine biologist for over ten years and have always cared about the planet and our environment. So, to grow local sustainable blooms is my passion and I'm doing my little bit for the planet.”



Alstroemeria
'Belinda'.

THE GREEN CONNECTION

How time flies, and so much has happened in 2020. Twelve months ago, I dedicated this column to the digital and environmental ambitions of Royal FloraHolland. We were right on track to connect everybody with an environmental registration to our Floriday platform.

Although some people were sceptic, we have reached a significant chunk of our goals. Around 80 per cent of the transactions can go digital via the platform, and in the first quarter of 2021, this will grow further towards 100 per cent.

Because of the major impact last year in the industry, more than 5,000 suppliers and 2,000 customers had to make the switch to Royal FloraHolland's platform. We gave some of them some lenience, so they have extra time to connect their software via the application program interface. This interface makes it possible to let the grower or buyer software communicate directly with the Floriday platform.

It also gives us the possibility to respond quickly to the demand for new requirements or developments in the markets. The platform is ready to connect supply and demand worldwide. It has the biggest assortment and the highest number of connected buyers in the floricultural industry. With Floriday, Royal FloraHolland Connects to Grow, in close collaboration with our industry partners, we are enabling the sector to grow.

All around us, we see the growth in e-commerce. A part of this growth is because of the measures taken to control the pandemic when shops were closed, and consumers used platforms such as Amazon and eBay in significant numbers. For example, IKEA saw 130 million fewer visitors coming through their physical stores during the Covid-19 period but saw a growth of more than 1 billion visitors on their website.

Parcel services had to make contracts with a maximum number of packages because they could not handle any extra volumes. With the start of vaccination programmes, the distancing measures will ease step by step, and we go back to a more normal life. People have adapted to online shopping as a convenient way of doing business in their daily life, so I believe the share of e-commerce will last.

And now this is also possible for the trade of flowers and plants. Being part of Floriday gives you the possibility to join your colleagues who are already present with their stock and allows you access to your trading partners. Although we are not able to meet each other at the different fairs that typically happen in these periods, we can meet online. We have made sure that all instructions to use Floriday are available, so it is straightforward to introduce the way of working to yourself. We hope to see you soon online so we can connect you to grow.

I wish everybody a prosperous and healthy 2021.

Fred van Tol
Manager of International Development
Royal FloraHolland





TWO SCIENTISTS WIN NOBEL PRIZE IN CHEMISTRY FOR 'GENETIC SCISSORS'

Niels Louwaars is managing director of Plantum, the Dutch association for the plant reproduction material. A plant breeder by education, he is involved in the process of plant reproduction policy analysis and advocacy, which was the topic of his PhD at Wageningen University.

The Royal Swedish Academy of Sciences awarded on 6 October the Nobel Prize in Chemistry to Emmanuelle Charpentier from France and American born Jennifer Doudna. Both Laureates delivered their Nobel Lectures on Tuesday 8 December 2020.

This year's prize is much about a tool that researchers can use to learn more about genetics and gene function. The technology has had a revolutionary impact on the life sciences and has a great potential to increase the speed and precision of plant breeding.

Charpentier and Doudna have turned basic science research on genome editing, mostly conducted by researchers in Europe, into a shining example of applied science: a 'genetic scissors' that can adapt the code of life. Laboratories around the world are adopting the genetic tool for applications in humans, plants, animals, fungi and bacteria and the potential for both medicine and agriculture is enormous.

Unfortunately, there is a remaining lack of clarity among European politicians impeding the direct use of this technology for crop improvement.

Plantum, the Dutch association for the plant reproduction material sector is a passionate advocate of amendments in the European law on genetic modification so that both small and larger plant breeding companies can use this revolutionary new technology. The Dutch sector body also hopes that the most prestigious award given for intellectual achievement in the world will re-ignite the debate on the benefits offered by the Crispr-Cas⁹ genome editing system.

The Netherlands is a global leader in plant breeding and propagation. Plant breeders relentlessly adapt seeds and plants to the wishes of consumers, food processors, traders, and farmers. Years of plant breeding have helped to make brussels sprouts tastier and mini peppers a favourite snacking item among consumers. Food processors are enthused by barley that brews better and wheat with superior baking quality, while farmers are happy to have access to a wide variety of crops that better resist pests and diseases and the adverse weather conditions caused by climate change.

Seed quality and good starting material are critical in the establishment of a uniform and healthy plant stand. The Plantum family, including more than 300 members, supplies the starting material for a range of crops, grown organically, in a more conventional way or a high-tech greenhouse environment around the world.

From the first seedlings to a readily available variety with improved traits it takes between six to sixteen years. As such, there is enormous power in the plant breeding process, but it is also inherently slow. No wonder that breeders are continuously

looking for ways to speed up the process. The discovery by the Nobel laureates may help to make this happen.

In the Netherlands, John van der Oost, a scientist working at Wageningen University, has laid the foundation for the CRISPR-Cas technology. He discovered that in bacteria certain comparable pieces of hereditary (repeats – the R of CRISPR) material lie in a row, which turned out to have to do with the mechanism of the bacteria to recognise viruses and cut them into pieces quickly.

The current Nobel Prize winners have been able to use this knowledge in such a way that we can now very specifically cut genetic material in all kinds of organisms, including plants, and thus cause mutations. The same mutations can also arise in nature, but to find them you must screen millions of individuals which is impossible.

In this way, a piece of DNA, a gene that codes for a property, can be made unusable or in scientific terms be silenced. This technique is useful when it concerns a trait that we do not want, for example a bitter taste. CRISPR-Cas can also slightly change such a property. A slight change that may allow useful alteration to take place. This action is useful, for example, when creating resistance to a new form of a known disease. The technology allows scientists to study the function of a gene, but also to modify such a trait, both of which are very useful in plant breeding. CRISPR, or other gene-editing techniques that derive from this invention, thus promise to accelerate the breeding process, and thus enhance the contributions that breeding makes towards sustainability and product quality. As conventional mutation breeding has proven exceptionally important in vegetatively propagated ornamental crops, this so-called targeted mutagenesis is particularly promising for such crops, that is, when the regulatory obstacles are removed.

Unfortunately, the European Court of Justice has ruled that the technique falls under the legal definition of 'regulated genetic modification'. Technical scientists show that it is very different from what we call genetically modified crops, including corn, soy, and cotton, where a functional trait of a very different species has been introduced. Such crops, which could not just arise in nature, are bound by strict rules, and not cultivated in Europe with some exceptions, notably in Spain.

However, the argument that gene edited plants could also have arisen in nature appeared not convincing for the judge, who had to interpret a definition formulated in 2001 according to the state of the scientific developments today. It is now up to policy makers to amend that legislation, something that the Dutch government is strongly advocating in Brussels because it can contribute to its sustainability policies that are now strongly supported by the European Green Deal. Unfortunately, policy making in Europe is a lengthy process.



Vancouver's urban forest.

Collaboration with nurseries delivers effective urban forest strategies for cities

AUTHOR: DR AUDREY GERBER, TECHNICAL ADVISOR TO AIPH.

The word ‘forest’ evokes the feeling of being immersed in a richness of nature and, in an urban context, promises the multidimensional experience of trees in a potentially otherwise harsh landscape.

Planting trees is widely seen as a strategy to reduce the negative impacts of climate change in cities, with city authorities worldwide introducing plans and policies to plant millions of trees within and around the city environment. When making a commitment to meaningful change, it is useful to present some form of measurement that can show evidence of progress and success. The term ‘canopy cover’, presented as a % of the total city area, refers to the layer of leaves, branches, and stems of trees that cover the ground when viewed from above. The strength of using canopy cover targets as a commitment to increasing the vegetation in cities is that it voices a simple and powerful ambition. In complex political agendas, this provides a common and comparable narrative. The problem, however, is that canopy targets are a commitment to quantity, with no in-built measure of quality.

‘WE NEED A MORE NUANCED APPROACH’

“We need a more nuanced approach to canopy cover targets set by city authorities,” says Cecil Konijnendijk, professor of Urban Forestry at the University of British Columbia. “Having well-stated goals, objectives, and clarity of vision are as important as a numerical target. It is also important to show that decision-making is data-driven.”

It is unrealistic to suggest a global norm for canopy cover targets, because cities vary so much in their typology and continuum of infrastructural elements – they have histories

of nature, culture, community – and these elements all define what level of canopy cover is possible and optimal. Canopy cover targets should also narrate what the canopy really brings to the city, and what is the story behind the number that is pitched as the target. A well-informed and well-debated target has real power, and motivates the set of benefits delivered by an urban forest beyond responding to climate change.

DIVERSITY IS CRITICAL

Making a commitment to a canopy target means nothing without successful tree planting and survival to maturity, and diversity is critical to creating a resilient urban forest and delivering on quality at the same time as meeting the target. Reports on tree inventories around the world are alarming. Only 30 species contribute to the 1.2 million trees in Shanghai. More than three quarters of Barcelona’s trees come from only 3 species. Ideally, no more than 10 per cent of an urban tree population should consist of any one species, no more than 20 per cent of a particular genus, and no more than 30 per cent of any given family.

NURSERIES SHOULD BE BROUGHT IN EARLY ON IN URBAN FOREST DISCUSSIONS

To support the need for a more diverse supply of urban trees, nurseries will need to expand their production range. Some nurseries are taking the lead on expanding their catalogues, looking to tree selection guides that describe the morphological and physiological characteristics of species that define their suitability for and contribution to the urban setting. “Nurseries should be brought in early on in discussions to manage supply and demand dynamics for urban forests,” suggests Cecil. “City authorities, landscape architects, and other disciplines in the green supply chain must collaborate in these initiatives and share the risk of defining, selecting and supplying trees for urban forests.”

OPF Mexico creates digital matchmaking for growers

Mexico is the perfect location for growing flowers and plants, but internationally there is inexact data. Ornamental Plants & Flowers (OPF) is aiming to change that.

President, Enrique Arias Velazco expounds, “In Mexico, plants and flowers are our daily life, they are part of our language. We celebrate the milestones of life’s joys and death, as in the Day of the Dead, so as you can see, our relationship with plants and flowers is strong.”

AUTHOR: RACHEL WAKEFIELD

OPF is a committee integrated by the principal plants and flowers organisations of Mexico, including Mexican Flower Council, the State of Morelos Council of Ornamental Producers, Palacio de la Flor in Xochimilco, Floriculture Association of Villa Guerrero and the Cactus Union Producers of Querétaro. The estimated value of national production of flowers/ornamental plants in Mexico is €1,664,000,000.



Greenhouse production of potted anthurium.



B2B Conecta's launch has come at such a critical time.

Most of the producers are in the states of Mexico, Puebla, Morelos and Veracruz, and Mexico City. In total, nationwide, there are 23,088 hectares of ornamental crops cultivated; and 25,500 producers of cut flowers and foliage and container plants; the industry also generates 188 thousand permanent jobs, 50 thousand temporary ones and more than one million indirect ones (Source: OPF Mexico).

The USA is the largest consumer market for Mexican ornamental, horticultural and floricultural products.

Internationally, OPF Mexico has excellent relationships with German and Dutch embassies in Mexico and the International Dutch Chamber of Commerce in Mexico known as Holland House Mexico. It also has free trade agreements between the European Union and Mexico that facilitate and enhance the bilateral market.

INAUGURAL OPF TRADE SHOW

In 2019, OPF Mexico began its first international ornamental floriculture trade show, after partnering with IPM Essen, to generate networking and trade opportunities for its members and producers nationally and internationally.

At AIPH's 72nd Congress online meeting in September, all members approved granting International Horticultural Trade Exhibition D Category status to OPF Mexico 2021 from November 17 until 19, 2021 in Centro Citibanamex, Mexico City. OPF Mexico 2021 focus will be on four speciality areas: Plants and Flowers, Technology and Innovation, Floristry and Decoration, Gardening and Landscaping. The show invites a special focus on an international country. In 2019, it was Germany, and for 2021 it will be the Netherlands.



Arias says, “We are going to have a special section for Dutch exhibitors, as well as making forums about the latest novelties of Dutch ornamental floriculture sector. For this edition, the dahlia, which is the Mexican national flower, is going to be the central decoration theme of this event.”

NEW DIGITAL CONNECTIONS

It is not only the trade show which OPF Mexico uses to connect a local audience of producers to a global supply chain. For three years, they have been creating a digital platform known as e-B2B Connect. IT manager, Gerardo Martin Cerda Ortiz, says its launch has come at such a critical time. “Before the coronavirus pandemic, Latin American horticultural producers would travel on business, they would never have thought about conducting business on a virtual platform. But this year, with the lockdowns preventing movement, many producers found a market on e-B2B Connect. It makes it easy to facilitate business encounters between clients and providers by locating customers through digitally displayed products. Once a customer shows interest in a specific product, they simply click on its Contact the Producer button, and the business process begins. The parties involved can now generate conversations through an internal chat, send emails, and schedule virtual meetings within the platform itself.”

There are two types of users: clients or purchasers. For a client, access is entirely free. They have access to a broad portfolio of suppliers listed by sector and positioned according to their certifications and services. For providers or suppliers, they can have access to a broad portfolio of national and international

In 2019, OPF Mexico began its first international ornamental floriculture trade show.

clients according to the type of membership they choose, and their company needs. The types of subscription are NAT Membership (national market) or INT membership (national and international market).

USER'S EXPERIENCE

The platform earns money by asking providers for an annual quotation fee that starts from \$197 to \$545, dependent on the number of products they want to exhibit and if they are NAT or INT member. The platform is for wholesale trades, which means that they can recover the fee's investment with just one successful business.

The platform currently shows product varieties from Mexico and Colombia, which was the first country outside of Mexico where e-B2B Connect expanded operations in November 2020.

Jairo Cadavid, president of The Association of Colombian Nurseries, points out that it is the best option available in the market to develop digital horticultural trade in Colombia. “In this way, suppliers and buyers can easily get in touch with new potential

clients, and for this reason we have decided to offer to the “Green Industry” the possibility of holding business meetings, generating access to distribution channels, and prospecting for clients and suppliers in Colombia and in the world.”

Cadavid also indicates that thanks to this digital platform the Trade Association has started connecting producers supply and potential demand, so each side of the trade process gets to know the innovations, capabilities, trends and news in the live plant and ornamental segment. “We brought together the nursery segment with suppliers of agro-inputs, new plant varieties and large buyers, with whom we seek to advance and develop negotiations that benefit the sector as a whole. Hand in hand with the Colombian Ministry of Agriculture, we have identified new channels with which it is possible to establish not only commercial contacts, but also generate anticipated sales.”

The e-B2B Connect platform and websites function in Spanish and English. However, there are plans in the future to translate into other languages.

As e-B2B Connect is OPF Mexico's official digital platform, it means that all the exhibitors at OPF Mexico 2021 will be able to use it. There are plans to push the platform to other countries, with interest from Mexican and Colombian Dutch Chambers, best known as Holland House Mexico and Colombia.

A lush display of orchids at 2019 OPF





Hungary sees lukewarm sales for All Souls' Day and All Saints' Day

FCI sits down with Hungarian grower András Kővári jr. to discuss sales around one of the country's most significant flower holidays.

AUTHOR: RON VAN DER PLOEG PHOTOS: ANDRÁS KŐVÁRI

Just like in large parts of Southern Europe, Central Europe, and Eastern Europe and, further afield, in the Philippines and Mexico, All Saints' Day and All Souls' Day on 1 and 2 November respectively, are two essential fixtures in the Hungarian ornamentals growers' calendar.

CHRYSANTHEMUMS ARE THE MOST SOUGHT-AFTER FLOWERS

Typically, for the occasion, Hungarians flock to cemeteries to place candles, wreaths and masses of flowers and potted plants on tombs of their beloved-ones. Cut Chrysanthemums and potted Chrysanthemum are traditionally the most sought-after flower for the two-day holiday. With a 60 per cent share, disbudded Chrysanthemums

featuring large blooms such as 'Palisade', 'Apollo' and 'Creamist' make up most of the flower sales in October. In pot chrysanthemums, cultivars such as 'Chrystal', 'Rainbow', 'Breeze', 'Splash', and 'Cosmo' are a firm favourite with Hungarian shoppers.

UNCERTAINTY

Pandemic or not, October and November have been busy times for Hungarian growers, wholesalers, and florists alike. However, in 2020, the first and second wave of coronavirus cases created much uncertainty among the country's 3,000 chrysanthemum growers. The Covid-19 pandemic demonstrates that horticulture is a vulnerable enterprise. A fragile existence that flower and plant



Products ready for shipment.



farmers already knew. András Kővári, Hungary's leading supplier of Chrysanthemum cuttings, says that some growers coped by cutting back on the number of cuttings they were putting into the ground or pot. "These growers sold all their flowers for Mother's Day to subsequently face a lack of product to meet demand. Some of them highly regretted cancelling cuttings orders at the start of the Covid-19 outbreak. In the run up to All Saints' and All Souls' Day garden centres and flower shops reported less footfall through their doors and were unable to sell all of their Multiflora chrysanthemums." Sales prices for Chrysanthemums continued to climb across Budapest and the west of Hungary in October and November. In the southern and eastern part of the country, however, prices were much lower, especially Szeged, Hungary's epicentre for Chrysanthemum production.

LIAISING WITH GOVERNMENT

According to Kővári, who imports young plants mostly from the Netherlands (Schneider) and grows finished plants for Auchan Hungary only, throughout the first wave of Covid-19, industry professionals continued to liaise with the government informing them about the sector's economic importance.

He says, "Politicians knew that forcing garden centres and flower shops to close would mean a loss of around 130,000 jobs plus €135m in revenues. Luckily, the government allowed all horticultural businesses to stay open. A wage subsidy announced in March, allowed horticultural entrepreneurs to continue paying up to 50 per cent of furloughed workers pay costs. This financial aid was granted to companies which did not lay off personnel. Also, there is a job support scheme in place, and in the summer, the government set out an extension to subsidies. In our case, we were granted €7.200 worth of state aid. The government's most

Pictured left to right are Tamás Rózsa (Hortiservice), Sara Torelles Pelegrí (Altinco Agro), Ramon Buira (Altinco Agro) András Kővári senior.

Inside Kővári's greenhouses.

recent relief package worth €97m was announced in October and came as the second wave of Covid-19 cases continues to rise across the country."

NOVICE GARDENERS

Kővári is happy to see that for all the doom and gloom of Covid-19 it has created a legion of new plant lovers and flower aficionados who, he says, must be encouraged by the industry to keep enjoying the many benefits of gardening. "Therefore, growers should team up to cater for a modern plant offer, including fewer mainstream flowers and plants. As for our own cutting business, we will buy the same amounts of young plants from suppliers such as Schneider and Dümmer Orange. However, we consider purchasing 25 per cent less starter material for potted mums."

PRODUCTION AREA

In Hungary, there is 60ha of land dedicated to commercial Chrysanthemum growing of which 50ha and 10ha are in use for cut chrysanthemum and potted chrysanthemum respectively. Chrysanthemum growing, due to the seasonality of the market, operates on a tight schedule. Complicating matters this year were rising input prices for cuttings and plant protection products. Most stakeholders from within the country's floriculture value chain agree that the industry is currently facing many challenges.





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