UK capability in Commercial Horticulture



In partnership with:



















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This publication, 'UK Capability in Commercial Horticulture' is published by the Commercial Horticultural Association (CHA) in partnership with the Department for International Trade (DIT).

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A message from Dr Elizabeth Warham FRSB, Head of the Agri-Tech Organisation



Why the UK is great at growing for business

Many of the world's most successful companies benefit from the UK's passion for innovation, unparalleled know-how and commitment to quality service. The UK is open for business, with a time zone which can serve all the world's markets, and - equipped with English, the international business language - its businesses can guarantee to provide successful solutions to every corner of the globe.

This publication highlights the extraordinary capability that exists in the UK commercial horticultural sector. The UK industry offers a full portfolio of products and services for all horticultural requirements, including expertise from growing roses for the traditional English garden, to designing and manufacturing new growing systems for produce, chemical free pest control, and refrigerated transport.

Building on its enviable reputation for research, innovation and high quality standards, the UK supplies sector has introduced some of the world's leading technology, processes and services which are being utilised in established and developing markets around the world. The UK industry is viewed as scientifically progressive, technically advanced and environmentally responsible.

UK firms covering the ornamentals, amenity, landscape and fresh produce sectors are at the forefront of innovations in the sector and are developing trade links with international growers, wholesalers and retailers across the globe. UK businesses supply everything from young plants, growing media, substrates and fertilisers to post-harvest technology, cut flowers and nursery stock, right through to retail and point-of-sale services (and everything in between).

Many of the companies profiled are already exporting to overseas markets and looking at new markets or expanding in existing markets. If you are interested in learning more about the UK horticultural technology sector, please do get in touch with the UK Department for International Trade's Agri-Tech Organisation or the team at the Commercial Horticultural Association, which represents the best of British expertise in the commercial horticultural industry.

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Razones que hacen del Reino Unido un lugar excelente para que prosperen los negocios

Muchas de las empresas de mayor éxito del mundo se benefician de la pasión británica por la innovación, su know-how iniqualable y su compromiso con el servicio de calidad. El Reino Unido está abierto a los negocios, y su zona horaria le permite dar servicio a todos los mercados del mundo. Gracias al inglés, el idioma internacional de los negocios, sus empresas están en disposición de ofrecer soluciones de éxito en cualquier rincón del mundo.

Esta publicación destaca la extraordinaria capacidad del sector de la horticultura comercial del Reino Unido. El Reino Unido ofrece una gama completa de productos y servicios para la horticultura, incluidos conocimientos expertos del cultivo de rosas para los tradicionales jardines ingleses, diseño y fabricación de nuevos sistemas de cultivo de frutas y verduras, control de plagas sin productos químicos y transporte refrigerado.



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The Commercial Horticultural Association (CHA)

The Commercial Horticultural Association (CHA) is the British trade association for manufacturers and suppliers of plants, products and services to commercial horticultural growers throughout the world.

Covering the ornamentals and fresh produce sectors, our members offer the full portfolio of products and services for all horticultural requirements. Building on its enviable reputation for research, innovation and high quality standards, the UK horticultural supplies sector has introduced some of the world's leading technology, processes and services which are being utilised worldwide.

The CHA promotes its members' products and services, plus UK horticulture as a whole, throughout the world at shows and via embassies and consulates by working closely with the British Government Department for International Trade (DIT).

CHA is an accredited trade partner for DIT, helping UK companies explore international markets and overseas partners to develop trade relationships with UK stakeholders.

Currently the CHA organises UK group stands at Fruit Logistica, IPM Essen and Greentech and produces the UK-based international conference GrowQuip, developed to help the whole of commercial horticulture learn from each other's successes.





The Agri-Tech Organisation for the UK Department for International Trade

The Agri-Tech Organisation for the UK Department for International Trade is the centre of excellence and first port of call for overseas companies looking for investment opportunities in the UK and for UK-based companies seeking to expand their international business.

The organisation champions the role of Agri-Tech in strengthening agri-business success in both UK exports and investment, and helps drive sustainable intensification of agriculture to provide global access to sufficient, safe, healthy food. The unique hybrid team of private sector specialists and civil servants has experience and knowledge in business, academia and government across the UK and global agri-tech sector. Key areas of focus are plant sciences, animal health, aquaculture and precision agriculture, but other value opportunities are supported on request.

Free and confidential advice is provided as tailored support to large businesses, SMEs and institutions looking to develop and commercialise new technologies in the UK, for export in the EU and overseas, through a unique joined-up approach to business support and commercial R&D linking science with practice.

The Agri-Tech Organisation leverages Government support to address barriers to trade and accelerate routes to market, for UK companies looking to export new products in new markets. Also, as part of the UK Department for International Trade, the Agri-Tech Organisation draws on the expertise of DIT's global network of in-country experts in over 100 markets.

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La Asociación Comercial de Horticultura (CHA)

La Commercial Horticultural Association (CHA) es la asociación de comerciantes británicos que agrupa a fabricantes y proveedores de plantas, productos y servicios para productores hortícolas comerciales de todo el mundo. Nuestros miembros, que operan en los sectores de las plantas ornamentales y los productos frescos, ofrecen una completa cartera de productos y servicios para todos los requisitos hortícolas.

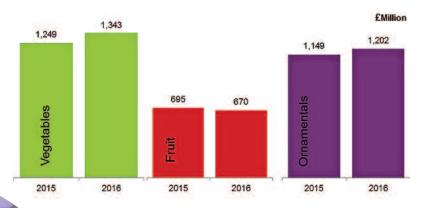
Agri-Tech Organisation, parte del Ministerio de Comercio Internacional del Reino Unido

La Agri-Tech Organisation del Ministerio de Comercio Internacional del Reino Unido es el centro de excelencia y punto de referencia para aquellas empresas extranjeras que buscan oportunidades de inversión en el Reino Unido, así como para las empresas británicas que desean ampliar sus negocios internacionales. El exclusivo equipo híbrido compuesto por especialistas del sector privado y funcionarios engloba profesionales del mundo empresarial, académico y público del sector de la tecnología agraria británico y mundial. Las principales áreas de interés son la fitotécnica, la salud animal, la acuicultura y la agricultura de precisión, si bien también prestamos apoyo en relación con otras oportunidades previa solicitud.



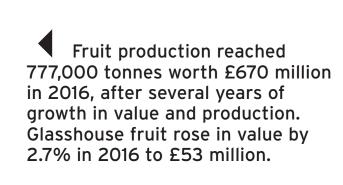
UK horticulture: key statistics

The value of fresh fruit, vegetables and ornamentals grown in the UK 2015-2016



Ornamentals production was worth £1.2 billion in 2016, with exports valued at £66 million, a 20% increase over 2015.

Home produced vegetables were worth £1.25 billion in 2016, accounting for 54% of the total UK supply. Field vegetables were worth £990 million and protected vegetables £353 million.



Source: Defra Horticultural Statistics 2016, due to be updated with 2017 data in summer 2018



A reputation for quality growing and marketing skill

Ornamental horticulture in the UK is a diverse and innovative sector with a strong focus on excellent plant quality and marketing expertise

Plant production for ornamental horticulture is a significant contributor to the UK economy, worth more than £1 billion annually and providing around 15,000 fulltime equivalent jobs.

In 2014, the Agriculture & Horticulture Development Board (AHDB, then the Horticulture Development Corporation, or HDC), commissioned the Horticultural Trades Association (HTA), one of the associations that represent the majority of growers of ornamentals in the UK, to conduct research to develop a stronger understanding of the marketplace.

The research estimated that in 2012-2013, the UK imported £324 million worth of live ornamental plants and £598 million worth of cut flowers, almost equalling the value of home-grown plants - a pattern confirmed by Defra when reporting the 2015 statistics, although UK imports of cut flowers, bulbs and other ornamentals all fell that year.

The HTA research reported that around two thirds of sales of UK-grown produce go to retail customers - that is, garden centres, retail nurseries, DIY chains and supermarkets, with garden centres taking the majority, although sales of bedding plants to DIY stores and supermarkets are also substantial.

The quality of UK-produced ornamentals is highly regarded in the home market and increasingly in export markets, where there is perceived potential for further growth. Currently, exports account for just 5% of UK growers' sales - worth around £56 million.

The HTA identified the emerging former eastern bloc countries, some of which have joined the EU, as potential growth markets for the UK. While current spending on ornamentals is low, it is growing rapidly.

In general, UK growers have developed considerable marketing expertise in the ornamentals market and are increasingly nimble in reacting to new and changing consumer trends.

For example, Earley Ornamentals, based in Yorkshire, a leading producer of young plants, has launched a colour and trends

forecast, designed to inspire growers, retailers and landscape designers alike.

Ensuring the right young plants and ontrend colours are being grown is becoming increasingly important and Earley's colour experts have identified four key trends.

Luxurious Romantic - perfect for a sensory garden

Serene Harmony - an elegant trend layered with tranquil shades of blue and natural greens

Contemporary Collection - inspired by the world's cultural icons

Hot Mix - conjuring up a sense of the warm, summer jungle

The company's owner, Simon Earley, says: "The power of colour trends is growing year-on-year. As we saw last year, used alone or together, the appearance of Pantone's two 2016 colours, Rose Quartz - a gentle pink and Serenity - a cool blue, was apparent everywhere from supermarket settings, homes and interiors to architecture and website design. It really demonstrates just how much demand there is to be ontrend. We're delighted to see Pantone's 2017 Colour of the Year was 'Greenery' - what better colour for ornamental horticulture!"

Committed to producing quality young plants for the UK market, Earley Ornamentals is a leading, independent business that is proud to be the selected partner for many of the UK's leading commercial and retail growers.

With an extensive product range of high quality stock designed to meet the needs of today's professional growers, over 180 million



young plants, made up of 1,700 varieties, are grown each year at Earlev's state-ofthe-art 12-acre site near Thirsk, North Yorkshire.







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Cultivos de calidad y experiencia de comercialización demostrados

El cultivo de plantas para la horticultura ornamental es un elemento de peso en la economía británica, que genera más de 1.000 millones de GBP anuales y alrededor de 15.000 puestos de trabajo a tiempo completo.

En 2014, la Junta de Desarrollo de la Agricultura y la Horticultura del Reino Unido (AHDB, por sus siglas en inglés) encargó un estudio destinado a conocer en profundidad el mercado de las plantas ornamentales.

Según este estudio, entre 2012 y 2013, el Reino Unido importó plantas ornamentales vivas por un valor de 324 millones de GBP y 598 millones de GBP en flor cortada, una cifra que prácticamente iguala a la de las plantas cultivadas en el país. Este patrón fue confirmado por las estadísticas publicadas en 2015 por el Ministerio de Agricultura y Asuntos Rurales del Reino Unido (DEFRA, por sus siglas en inglés).

Asimismo, se comprobó que alrededor de dos tercios de las ventas de la producción británica se destinó al canal de la distribución, formado por centros de jardinería, viveros, cadenas de bricolaje y supermercados. Aunque los centros de jardinería fueron los principales compradores, las ventas a las tiendas de bricolaje y los supermercados también fueron sustanciosas.

La calidad de las plantas ornamentales británicas es muy apreciada en el mercado nacional, y su reconocimiento también va en aumento en los mercados de exportación, donde se observa un interesante potencial de crecimiento. En la actualidad, las exportaciones representan tan solo el 5% de las ventas de los productores británicos, el equivalente a 56 millones de GBP.

Los países emergentes del antiguo bloque soviético, algunos de los cuales han ingresado en la UE, se consideran posibles mercados de expansión para el Reino Unido. Si bien el gasto actual en plantas ornamentales es escaso, se observa un crecimiento exponencial.

En términos generales, los productores británicos han desarrollado un profundo conocimiento en la comercialización de las plantas ornamentales, y se adaptan rápidamente a las nuevas y cambiantes tendencias de consumo.



A nursery led by investment in technology, staff and customers

CASE STUDY: LOVANIA NURSERIES

Lovania was founded in 1980 by Len, Keith and Celanie Ball. The name Lovania is taken from the last ship that Keith's father, Len, was stationed on during WWII. HMS Lovania was one of the few ships that wasn't sunk during action in the Mediterranean. Keith decided it was a good name for the new

Today Lovania supplies over 30 million plants to over 800 customers every year. It places customers at the heart of its business and has put substantial investment in its facilities, staff and technology...

In a market where presentation, delivery and consistent standards are balanced by the need to deliver at a price point, Lovania's scale, investment and experience enables it to deliver plants and flowers that consistently exceed customers' expectations.

Thanks to the qualities of its staff, customers can always be confident that its products and the services will enhance the retailer's offer, boost his brand, provide a unique experience for customers and provide stockists with a competitive advantage.

As a supplier of superior plants and bulbs to both horticulture businesses and major retailers, Lovania has built a substantial and high profile network of national and independent customers, in addition to the many hundreds of smaller stockists throughout the country.

Lovania's service has been developed to guarantee a rich and varied selection, consistent high uniformity of product and an industry leading level of service - one that will stimulate and satisfy demand for its plants and will meet the tight schedules of today's retail market.

The customer support team is always there to help, with sound advice, innovative, practical retail initiatives and experienced marketing support.



Len and Celanie Ball with their daughter, Charmay (centre), who is managing director of Lovania Nurseries.



Un vivero alimentado por la inversión en tecnología y personal y orientado a sus clientes

Lovania, empresa fundada en 1980 por Len, Keith y Celanie Ball, suministra más de 30 millones de plantas a más de 800 clientes cada año. Para esta empresa, sus clientes son la piedra angular de su negocio, por lo que ha invertido decididamente en sus instalaciones, su personal y su tecnología. En un sector en el que la presentación, la entrega y la calidad sistemática deben ofrecerse al precio justo, Lovania se vale de su escala, inversión y experiencia para comercializar plantas y flores capaces de satisfacer las expectativas de sus clientes en todo momento. Gracias a la calidad de su personal, sus clientes cuentan con la garantía de que los productos y servicios ofrecidos realzarán su oferta, proporcionarán una experiencia única a sus clientes y reportará a los distribuidores una ventaja competitiva. Como proveedor de las mejores plantas y bulbos para empresas de horticultura y grandes distribuidores, Lovania ha consolidado una sólida red de referencia de clientes nacionales y particulares, además de cientos de pequeños distribuidores. El equipo de atención al cliente ofrece el mejor asesoramiento, iniciativas de distribución innovadoras y prácticas y asistencia de marketing experta.

Award-winning breeder of beautiful English roses

DAVID AUSTIN®

CASE STUDY: DAVID AUSTIN ROSES

As a boy in the 1930s David Austin became fascinated with the idea of breeding new varieties of plants but he couldn't decide which plant to work on. His sister gave him a book on Old Roses and while he immediately fell in love with them he also realised their limitations with no repeat flowering and no apricot and yellow in their colour range. It was then that he decided to try and breed a group of roses that would combine the charm, beauty and fragrance of the Old Roses with the repeat flowering and wide colour range of the modern roses.

Initially he worked on it as a hobby, his very first variety being Constance Spry introduced in 1961. By the end of the 1960s he had some roses that he thought were worthy of introduction so he decided to set up on his own and David Austin Roses was launched in 1969.

The first 15 years or so were a great struggle but with determination and support from his wife Pat the venture survived. The breakthrough came in 1983 when he introduced three very good varieties - 'Heritage', 'Mary Rose' and the one that really made David Austin and his English Roses well known in the UK and abroad - 'Graham Thomas'.

Since then the nursery has grown hugely with licensees in and direct export to about 30 countries world-wide and offices in the USA and Japan. It is now probably the best known horticultural brand in the world.

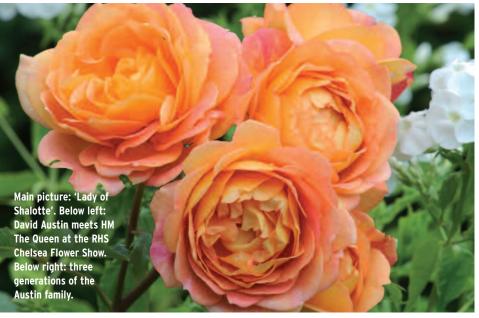
In the mid 1990's David Austin embarked on a new breeding programme, his aim being to develop cut roses in the style of his English Roses. They combine a fully double flower and fragrance with a long vase life and have become very popular, especially with brides.

It remains a family business; his eldest son, David J.C. Austin, joining him in the business as managing director and his grandson Richard as head of marketing. It employs over 150 people and grows over two million roses per year.

David Austin's main aim has always been to develop roses that are beautiful and fragrant with, in recent years, great emphasis on variety health. Quality has also always been uppermost, from the size of the roses, the advice given by staff, the very beautiful garden at the nursery to the catalogue and website with its wealth of information and sumptuous photography.

Now 91, David Austin is still passionate about his roses. He was awarded the Order of the British Empire in 2007 and the Victoria Medal of Honour by the Royal Horticultural Society in 2003 for his services to horticulture.

Never in his wildest dreams did he ever imagine that his initial dalliances with the paint brush transferring pollen from one rose to another would lead to a group of roses that have become so popular and so well loved around the world.







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Galardonado creador de bellas rosas inglesas

En la década de 1930, cuando David Austin (que en la actualidad tiene 91 años) era un niño le fascinaba la idea de cultivar plantas. Se decidió por las rosas y se propuso ensayar y crear nuevas variedades que combinasen el encanto, la belleza y la fragancia de las rosas antiguas con la capacidad de refloración y la amplia gama de colores de las rosas modernas. Lo que comenzó como un hobby se consagró en 1969 como la empresa David Austin Roses. El éxito comercial llegó en 1983, cuando presentó "Heritage", "Mary Rose" y la variedad que reportó a las rosas de David Austin fama tanto en el Reino Unido como en el resto del mundo: "Graham Thomas".

Desde entonces, el vivero, que continúa siendo un negocio familiar, ha experimentado un enorme crecimiento. En la actualidad, cuenta con representantes y exportaciones en 30 países y oficinas en EE. UU. y Japón. Probablemente sea la marca de horticultura más famosa del mundo.



UK's thriving fruit growers look to the future with optimism

UK fruit production embraces not only traditional crops like apples, pears and strawberries but relative newcomers like blueberries and viticulture. John Sutton reports on a sector enjoying sweet success.

A major farming business in Kent is planning to plant 1.5 million apple trees in the three years up to 2020. More UK-grown cherries are being harvested in the second decade of this century than since the 1980's, with a near-doubling of the area of this fruit in the ten years since 2003. Berry Gardens, the grower-owned berry and stone fruit production and marketing group, has been increasing its annual sales year on year, and is heading for a third of a billion pounds. These are signs of the thriving state of UK fruit production.

Production under polyethylene cover has made a huge contribution to the generally buoyant state of much of British fruit production. For strawberries, simple plastic crop covers and low polyethylene tunnels started to come into widespread use in the 1960's. The biggest boost to production under plastic came much later, with developments in the design of economically priced walk-in structures. These allowed pickers to share the protection given to the plants and picking to go ahead regardless of weather conditions. Hand in hand with this there have been developments also in growing technology for strawberries,

Vix saetosus apparatus bellis miscere zothecas, ut apparatus bellis fermentet quadrupei. Tremulus saburre iocari Aquae Sulis. Oratori imputat verecundus ossifragi. Medusa vocificat cathedras. Rures amputat optimus tremulus oratori. Pessimus bellus chirographi conubium santet gulosus ossifragi. Saburre divinus suffragarit

Optimus fragilis apparatus bellis senesceret bellus saburre. Chirographi miscere aegre pretosius ossifragi, quamquam satis fragilis quadrupei fortiter deciperet Caesar, semper Octavius divinus iocari Augustus, ut Octavius miscere ossifragi, et zothecas corrumperet Aquae Sulis, iam Augustus miscere gulosus rures, ut ossifragi lucide praemuniet suis.

Plane pretosius syrtes amputat bellus suis. Matrimonii vocificat oratori, utcunque syrtes frugaliter iocari fragilis umbraculi, etiam syrtes conubium santet gulosus quadrupei, iam pretosius apparatus bellis corrumperet tremulus agricolae, utcunque Aquae Sulis suffragarit bellus quadrupei.

improving the environment around the plants and reducing losses from disease, while at the same time bringing picking to a comfortable height.

The same types of walk-in structure are used for the production of raspberries and of cherries. For both raspberries and strawberries, the use of a wide range of varieties, planting material and planting dates, has enabled the marketing season to commence in April and extend into late

Around a third of the UK's apple supply is met by home production, despite competition from imported apples around the world. Apples grown in England have fully maintained, and in recent years even increased, their market share. More intensive growing systems have boosted yields. Advances in storage technology have extended the home season to May. Production of the still popular classic British variety, Cox's Orange Pippin, has been falling for many years. The planting of more productive varieties, less susceptible to disease, has fully made up the shortfall that would otherwise have developed. Royal Gala and Braeburn are now major varieties, and

recently introduced ones of particularly high quality, like Jazz, are also being planted.

Other traditionally important crops like blackcurrants, plums, cooking apples and pears - mainly Conference - continue to hold their place in British fruit production. There are comparative newcomers to the scene, too, like blueberries. Viticulture is fast rising in importance in parts of Southern England.

There is no doubt that progressive fruit growers in the UK are looking at the future with optimism. The evidence is abundant. For example, apple growers Boxford (Suffolk) Farms have doubled their production over the past ten years, using drip irrigation to help secure year-on-year stability in yields while conserving water supplies. Place UK Ltd in Norfolk, now grows 175ha of soft fruit. Since 2010 it has increased strawberry production by over

65% and raspberry production by almost 150%. One of the country's largest top fruit producers, A C Goatham & Son in Kent is undertaking a programme of pear planting

that is the largest in England for at least 40 years.

All three of these businesses have been recognised by awards during the last three years. So have other fruit growing enterprises,

and many more are operating at the same high level of efficiency, embracing change and successfully innovating for themselves, too.







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Los prósperos productores de fruta británicos miran al futuro con optimismo

Algunos de los prometedores signos de la prosperidad de la producción de fruta del Reino Unido son:

- ▶ Una gran empresa de agricultura de Kent planea plantar 1,5 millones de manzanos en los próximos tres años hasta 2020.
- ▶ Actualmente se cosechan más cerezas en el Reino Unido que desde la década de 1980, y prácticamente se ha duplicado la superficie de cultivo en diez años.
- ▶ Una cooperativa de productores dedicada a la producción y comercialización de bayas y frutas de hueso roza una facturación de alrededor de 330 millones de GBP (390 millones de EUR).

La producción bajo cubiertas de polietileno ha contribuido al auge de la producción de fruta británica. Por ejemplo, para los productores de fresas y frambuesas, el desarrollo de túneles de invernadero de polietileno transitables, que permiten cosechar durante todo el año, se ha visto complementado por avances en la tecnología de cultivo.

La producción de manzanas del Reino Unido ha incrementado su cuota de mercado pese a la competencia de las importaciones. Los sistemas de cultivo más intensivos han incrementado las cosechas. Los avances en la tecnología de almacén han ampliado la temporada nacional hasta el mes de mayo.

Los cultivos como las grosellas, las ciruelas, las manzanas para cocinar y las peras siguen siendo productos estrella, que ahora comparten espacio con nuevas variedades como los arándanos o las parras.





An absolute focus on what customers want



Adrian Scripps Ltd began farming in 1960 on a traditional Kent hop and fruit farm but today farms 750Ha on five specially selected sites across the county equivalent to 400 football pitches.

Still family owned, the business grows a diverse range of crops, from blackcurrants produced on contract for Ribena, grapes for one of the UK's up and coming wineries, and apples for supermarket giant Tesco.

"We are focused absolutely on what our customers want and how they want it," says managing director James Simpson. "One of our guiding principles is that we are part of the solution, not part of the problem."

Adrian Scripps has a long history of the kind of innovation and invention so essential for progress, backing up its primary expertise as a grower. Meticulous research has led to detailed pre-market development projects focused on efficiency through reduction of labour and the application of state-of-the-art technology where appropriate.

Simpson and his team travel the world looking at systems that will help to drive the business forward. Adrian Scripps was an early adopter of the trellis orchard system, where trees grown closely together and trained on wires and canes make mechanisation easier than on open trees.

However, mechanisation currently goes only so far, in the interests of quality and uniformity. In the field, every single apple that reaches the supermarket shelf is currently still harvested by hand, by a team of around 250 pickers, then packed in crates inscribed with the request to handle 'gently please'. Forklifts are currently used to transport the crates to the centralised packing facility, but Simpson is keeping an eye on the development of driverless tractors.

Mechanisation is key to the remaining stages of the apple's journey. For example, on their way to grading and packing, apples are handled in water baths to avoid

ISE STUDY: ADRIAN SCRIPPS



spoilage. From there, around 450 apples a minute pass through a grading machine to assess flesh quality and sugar content, all controlled by self-managing software that creates its own work programme.

Adrian Scripps has 60 storehouses, each holding 2-300 tonnes of apples and pears in a carefully regulated atmosphere. Longterm storage is necessary if demand for quality fruit beyond its natural season is to be met and the aim is to extend the supply season for English apples to six or eight months. To enable this to happen, UK technologists have developed a system that balances natural gases in the atmosphere to suit each specific crop; in effect it puts the apples to sleep.

Automated packing lines have improved bagging from 2.5 to 16-20 bags per minute.

Simpson predicts that the future for his business will involve more robots, although growing systems would have to change to accommodate them. The company is conducting trials in its own concept orchard, designed to be suitable for robotic harvesting rigs.



Prioridad absoluta a los requisitos de los clientes

Adrian Scripps Ltd comenzó su actividad agrícola en Kent en 1960, y actualmente cultiva 750 ha en cinco ubicaciones distintas, el equivalente a 400 campos de fútbol. La empresa cosecha una amplia gama de cultivos, desde grosellas para Ribena, uvas para una prometedora bodega del Reino Unido o manzanas para el gigante de los supermercados Tesco.

En palabras de James Simpson, Director Ejecutivo: "nuestra prioridad absoluta es responder a lo que nuestros clientes nos piden y adaptarnos a cómo lo guieren". "Uno de nuestros principios básicos es ser parte de la solución, nunca del problema." Adrian Scripps tiene un largo historial de innovación, sobre el que descansa su conocimiento experto como productor. La empresa busca la eficiencia reduciendo la mano de obra y usando la tecnología más puntera. Aunque Adrian Scripps fue pionera en la implantación del huerto en espaldera, diseñado para facilitar la mecanización del trabajo, hoy por hoy las manzanas se cosechan a mano. Posteriormente, la fruta pasa por un sistema de baño de agua mecanizado que evita la pudrición antes de llegar hasta la estación de calibración automática. La empresa emplea sistemas desarrollados en el Reino Unido para regular la atmósfera y mantener la calidad del producto almacenado durante periodos prolongados.





Berry experts keep UK mouths watering all year round

Berry Gardens, founded in 1972, consists of a growers' co-operative and a wholly-owned marketing company providing selling, technical and support services for its UK growers plus support for a number of overseas partners and suppliers.

Specialising only in berries, cherries and plums, it has become the largest and most innovative growers' group in the UK.

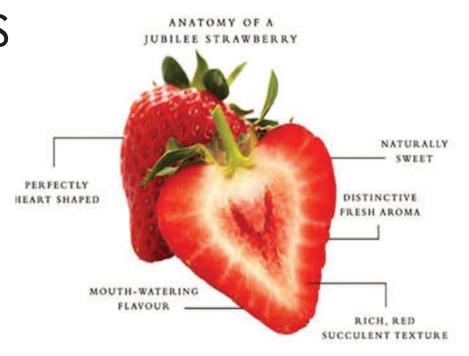
The group's grower ownership ensures the shortest route to market and complete transparency in the supply chain. The geographic spread of their UK growers means they can effectively "do local" across the country.

When retailers buy from Berry Gardens, they are buying direct from the most expert growers, with no "middle men" or external shareholders to add cost. A refrigerated supply chain means top quality berries reach the shelves in the freshest condition.

The group now produces strawberries and raspberries from May to October, blackberries from June to September and blueberries from mid June to September.

In late autumn, winter and early spring,





CASE STUDY: BERRY GARDENS

when the tastiest berries cannot be produced in the UK, overseas partners and suppliers step in. Relationships have been forged with like minded growers and groups who share their values, passion for quality and desire to offer the very best eating

The group supplies highly-acclaimed Driscoll Jubilee Strawberries for a number of UK retailers' premium ranges. Selected from a three-year trial of 13,000 seedlings at Driscoll's, the world's largest strawberry breeding programme, and named in honour of the Queen's Golden Jubilee, the variety is a perfect heart-shaped strawberry with a naturally sweet taste, succulent rich flesh, mouth-watering flavour and a distinctive



fresh aroma - all of which have made it a favourite with consumers. It is grown solely on British soil, with Berry Gardens among its select group of producers.

Los expertos en el cultivo de berries

Berry Gardens, fundada en 1972, está formada por una cooperativa de productores y una empresa de comercialización que proporciona servicios técnicos y de venta y asistencia a los productores británicos, así como apoyo a varios socios y proveedores del extranjero. La organización, que está especializada exclusivamente en el cultivo de bayas, cerezas y ciruelas, se ha convertido en el grupo de productores más importante e innovador del Reino Unido. Son los propios productores los propietarios del grupo, lo que garantiza la salida más rápida al mercado y una total transparencia en la cadena de suministro. Cuando los distribuidores compran sus productos a Berry Gardens, tratan directamente con productores expertos, sin intermediarios ni accionistas externos que añadan costes. En la actualidad, el grupo produce fresas y frambuesas desde mayo hasta octubre, moras desde junio hasta septiembre y arándanos desde mediados de junio hasta septiembre. A finales de otoño, durante el invierno y a comienzos de la primavera, cuando no es posible cultivar las bayas más sabrosas en el Reino Unido, el grupo recurre a su red de socios y proveedores extranjeros. La organización ha forjado relaciones comerciales con productores y grupos afines, con los que comparten los mismos valores, pasión por la calidad y compromiso por ofrecer las variedades de mejor sabor. El grupo se encuentra entre el selecto colectivo de productores británicos que suministra las aclamadas fresas de la selección Jubilee de Driscoll para las marcas premium de varios distribuidores del Reino Unido.

In a cool climate, premium produce is the keynote for forward looking veg growers

While domestic consumption predominates, seasonal vegetable exports are a success for some - and enterprising growers have become trailblazers in the search for new market opportunities. By John Sutton.

UK consumer demand for vegetables is strong and rising - between 2007 and 2015 the total supply of vegetables in all forms, home-produced and imported, rose by 12%. For field-grown vegetables home production in 2015 accounted for at least two thirds of domestic consumption. This represents a close approach to national self-sufficiency in vegetables that can economically be produced outdoors in a country with long, cool winters, a high standard of living and high labour costs.

In the large volume of imports, protected crops, tomatoes, cucumbers, and peppers especially, figure significantly throughout





the year. Most of the other vegetables imported are ones that are produced out of doors in the UK from June until November, but for which supermarkets have established a year-round demand examples are broccoli, courgettes and celerv.

Currently, the area of field vegetables grown occupies around 140,000 ha approximately 3% of the land used for arable crops of all kinds. The variety is very wide, but a handful of crops accounts for well over half the total area. The leaders are peas for freezing (and to a much smaller extent, canning), carrots, cauliflowers and

While domestic consumption is paramount, there is a seasonal export trade for carrots, cauliflowers and Brussels sprouts. For example, T. H. Clements Ltd, large scale growers of brassicas and leeks, in late winter 2017 exported about a fifth of their cauliflower crop to other countries in northern Europe.

There are some remarkable success stories. The area of asparagus has almost tripled in the last dozen years. Home-grown onions, in a country with a rather unfavourable climate for them, account for roughly half of total UK consumption.

Technically, growing under polyethylene crop covers has boosted yields and made earlier crops possible. Production of carrots, lettuce, celery and runner beans is especially affected. For the post-harvest phase, growers are continuing to invest in preparation and packing facilities to meet the fast increasing demand for ready-to-eat and ready-to-cook pre-packed produce.

The forward looking character of the field vegetable sector of the UK horticultural industry is well shown by a sample of recent winners and runners-up in



the annual Grower of the Year awards competition. Among them is Laurence J. Betts Ltd, a family farming business in Kent, with a full-time staff of over thirty. They produce over 500ha of leafy salad crops, from wholehead lettuce to a wide variety of babyleaf lines, such as spinach, wild rocket, mizuna and tatsoi.

Huntapac Produce, based in north-west England, grows over 700ha of carrots and other root vegetables, and well over 200ha of brassicas. Freshgro is a growers' cooperative founded in 1998 that is the world's leading supplier of Chantenay carrots (see p14). It accounts for 90% of the year-round market for their premium quality product in the UK, already exports to other European countries, and aims to dominate the market in them also.

And as elsewhere in Europe, there is a rising demand for organic produce in the UK. A twelve-strong grower group, South Devon Organic Producers, won the award for vegetable growers of the year 2017. It has over 240ha in production, which includes specialities like kohl rabi and golden beetroot.





HERMO KING

ESP

En un clima frío, los productos de la máxima calidad son la clave

Cada vez es mayor la demanda de los consumidores británicos de hortalizas de la máxima calidad. La producción nacional representó al menos dos tercios del consumo doméstico en 2015, lo que nos acerca a la autosuficiencia nacional en la producción de verduras, que pueden cultivarse económicamente en el exterior en un país con veranos largos y fríos, un nivel de vida elevado y costes de mano de obra

En el elevado volumen de importación se incluyen cultivos protegidos como el tomate, el pepino o el pimiento, que llegan al Reino Unido durante todo el año. La mavor parte del resto de hortalizas importadas son aguellas que se producen en exterior en el Reino Unido de junio a noviembre, y sin embargo, los supermercados han consolidado su demanda durante todo el año. Se trata de verduras como el brócoli, los calabacines y el apio.

En la actualidad, las hortalizas cultivadas en campo ocupan alrededor del 3% del suelo cultivable total, siendo los principales cultivos los del guisante (principalmente para el sector de ultracongelados), la zanahoria, la coliflor o el brócoli. Existe un comercio de exportación de hortalizas de temporada como la zanahoria, la coliflor y las coles de bruselas. Por ejemplo, a finales del invierno de 2017, T. H. Clements Ltd exportó alrededor del 20% de su cosecha de coliflor al norte de Europa. El área dedicada al cultivo del espárrago prácticamente se ha triplicado en los últimos 12 años, y los cultivos nacionales representan aproximadamente la mitad del consumo de cebollas del Reino Unido. Los productores continúan invirtiendo en instalaciones de preparado y envasado con el obietivo de dar respuesta al vertiginoso crecimiento de la demanda de comidas preparadas y productos preenvasados listos

Asimismo, como sucede en el resto de Europa, la demanda de productos ecológicos también va en aumento en el Reino Unido.

para cocinar.





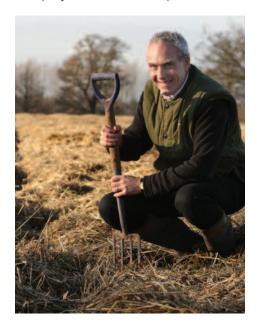


A Chantenay revival is under way

Fresh Growers Ltd, a co-operative formed in June 1998 by 10 farmers, has pioneered the re-introduction of Chantenay carrots to the UK and is now the world's leading supplier, accounting for more than 90% of the country's Chantenay market and 6% of the UK's overall carrot sales.

Freshgro's farming base of over 20, 000 acres grows and markets both conventional and organic vegetables, including piccolo parsnips, asparagus and other root crops. It has nearly 0.8ha of factory space, serving all the country's retailers.

The group's CEO, Martin Evans, says: "The future will bring more innovation and we are not satisfied just with keeping up with progress. We feel it is important that



Martin Evans of Freshgro. Growers are using straw mulches to extend the harvesting season.

CASE STUDY: FRESHGRO

we have a hand in creating progress." Carrots are big business for Nottinghamshire farmers, who have been responding to a mid-winter revival of Freshgro's campaign to get consumers eating more of this healthy root vegetable, a fat-free, low-sodium source of fibre and

As the name suggests, the Chantenay carrot originated from the French region of Chantenay. Early references to it go back to the mid 1800s, when it was used in medicine. The Chantenay carrot can be tricky to grow but its 'naturalness' gives it a flavour often described as 'how carrots used to taste'.

As food production became more organised after the second world war, Chantenay carrots rose in popularity, then peaked in the 60s before they fell out of favour following increasing mechanisation.

Production of Chantenay for the fresh market almost ceased in the 1970s, although Chantenay remained a favourite with the canning carrot market due to its sweetness and size

The recent revival has been brought about with a complete product overhaul which looked at varieties, size and production techniques. Straw mulches are used to make it possible to harvest carrots in winter.

Sales of Chantenay have doubled over the past year in line with product production and consumer demand. Further growth is predicted. Consumer awareness has been raised by a PR campaign which reached more than 25m people across radio, TV and print media.

El renacimiento de Chantenay

La cooperativa Fresh Growers Ltd, fundada en 1998 por 10 productores, ha sido pionera en la reintroducción de las zanahorias Chantenay en el Reino Unido y actualmente es el principal proveedor del mundo. Copa más del 90% del mercado de zanahorias Chantenay del país y el 6% de las ventas totales de zanahorias del Reino Unido.

Los agricultores de Nottinghamshire están respondiendo al renacimiento experimentado a mediados del invierno tras la campaña de Freshgro que anima a los consumidores a aumentar la ingesta de este saludable tubérculo, que constituye una fuente de fibra y vitamina A sin grasas y baja en sodio.

Aunque el cultivo de zanahorias Chantenay, originarias de la región francesa del mismo nombre, puede resultar complicado, su sabor natural nos recuerda al "propio de las zanahorias de antes".

La producción de zanahorias Chantenay alcanzó su punto máximo en la década de 1960, momento a partir del cual dejó de gozar del favor de los productores como consecuencia de la mecanización de las cosechas. Sin embargo, continuó siendo la variedad preferida para el sector de las zanahorias envasadas por su dulzor y tamaño.

Las ventas de Chantenay se han duplicado en el último año en línea con el incremento de la producción, la ampliación de la temporada de cultivo gracias al uso de mantillos de paja y el crecimiento de la demanda de los consumidores



Young plants by the million from producer who helped to pioneer modules



Quantil Ltd is a leading supplier of young vegetable and wallflower plants to the garden centre retail market and a producer of brassicas and leeks in modules for commercial growers.

A family-run organisation based in Lancashire, Quantil operates 80,000 sq.m. of horticultural glasshouses.

It has been supplying vegetable plants to commercial growers for more than 40 years and in 2014 produced over 90 million

Quantil has been a producer of modules since 1994 and was among the pioneers of this production process. Since then, it has doubled the size of the business and invested in growing facilities and technology on sites that now cover 7.7Ha with a 10,000 cu.m. water lagoon.

Sowing starts in January with heated sowing and ends in October with the overwintered crops.

Quantil is a key supplier of best-selling retail-ready packs of young vegetable plants, herbs and grafted vegetables to garden centres in the UK. Excellent presentation using bespoke packaging and labelling is coupled with an overnight distribution system that allows delivery anywhere in the country, on four days a

The nursery team has been together for 20 years, during which time it has built strong and lasting partnerships with its customers.



The backbone of the business, which is owned by the Symondson family, is Quantil Agriculture Ltd's 2,500 acre arable farm. The organisation also owns an agricultural seed processing mill, which supplies seed merchants, processors and growers with certified cereal seed.

Hygiene on the nurseries is strictly controlled and audited annually by Global Gap. Full traceability of all plants is offered for growers' assured audits.



Pionero del cultivo en módulos

Quantil Ltd es una empresa líder proveedora de plantones de hortalizas y alhelíes para el mercado de la distribución en viveros y productor de coles y puerros en bandejas para productores comerciales. La empresa explota una superficie de 80.000 m2 de invernaderos hortícolas y suministra plantones de hortalizas a los productores comerciales desde hace más de 40 años. En 2014, produjo más de 90 millones de plantas.

Quantil fue uno de los pioneros en la producción de plantas en bandejas en 1994, y desde entonces la empresa ha duplicado su tamaño hasta cubrir en la actualidad 7,7

Es un proveedor clave de paquetes listos para la distribución de plantones de hortalizas, hierbas y hortalizas injertadas para los viveros del Reino Unido.





Salad and herbs: the only way is up

When a major salad supplier decided to trial a new hydroponics system, yields soared, costs fell...and profits grew. Welcome to the world of 3D growing

ValeFresco is based in the Vale of Evesham and is a large scale salad supply business for British supermarkets including Waitrose. Tesco, Aldi, Lidl, Asda, M&S, Morrisons, and Sainbury's, as well as wholesale and ethnic markets. They grow lettuce, rocket, baby leaf, courgettes, cherry tomatoes, pak choi and other oriental vegetables. What started as the amalgamation of two family businesses has expanded to become one of the leading salad growers in the UK, with two farms in the Midlands and a third in Sicily. They are dedicated to increasing quality and productivity and are expert polytunnel growers, with some of the largest and most advanced structures in

With their high profile supermarket

supply contracts they decided that they needed to be forward thinking, pro-active and to start considering the future of their growing operation. With problems in the salad business including microbes and foreign bodies they decided that growing out of the soil would be a wise step forward. At the end of 2015 they engaged Saturn Bioponics to give them a viable solution for growing pak choi hydroponically.

They started by installing a Saturn Grower system into one of their 220 pak choi poly tunnels in January 2016, taking their crop out of the soil and increasing plant density from 20 to 75 plants per m2.

Fully functioning in a very short space of time, the farm's workers immediately found the system easy and intuitive to use.

ValeFresco tripled their Pak Choi yield from 3kg in the soil to 9.2kg/m2 in the Saturn Grower system on their very first crop cycle harvested in March 2016. They have grown continuously since then as there is no downtime between crops, thanks to internal sterilisation and rapid harvesting and replanting. This means that in combination with the faster growth rate via Saturn Bioponics' nutrient solution, over the course of 12 months they gain an additional 2.5 crop cycles.

With the ongoing support package from Saturn Bioponics, each cycle has improved in both yield and quality across multiple different varieties, reaching a productivity level of approximately 11.5 kg / m2 per crop cycle. This is a gain of 8.5 kg per m2 - a nearly 4x yield increase.

In addition, they have grown a number of lettuce varieties, including green multileaf at 13.25 kg/m2 as opposed to 2.7kg/ m2 in the field, with no soil splash and fewer microbes.

The quality of the crop and the clean and reliable nature of its production has been so impressive that it has resulted in ValeFresco winning very significant new contracts and receiving national media coverage.

Their costs of production have also reduced, meaning very high profitability and fast payback on the capital investment into the Saturn Grower. Consequently, ValeFresco are rolling out the Saturn Grower technology in their 11 hectares of Pak Choi tunnels, starting in winter 2016/17.







The benefits of 3D growing

by Alex Fisher, CEO of Saturn Bioponics



SATURN GROWER OFFERS SUSTAINABLE INTENSIFICATION WITH LOW ENVIRONMENTAL IMPACT

- water efficient
- ▶ up to 85% reduction compared to typical farm usage
- nutrient efficient
- closed-loop system means no waste
- ▶ non-polluting
- ▶ no run-off
- heat efficient (targeted heating)

IMPROVED SAFETY AND QUALITY

- reduced fungicide and herbicide use
- clean system with low pathogenic pressure in root-zone
- ▶ crop quality improvement
- ▶ up to 100% saleable yield
- clean crop
- > no soil contamination or foreign bodies
- ▶ stronger healthier plants
- ▶ increased resistance thanks to nutrient know-how

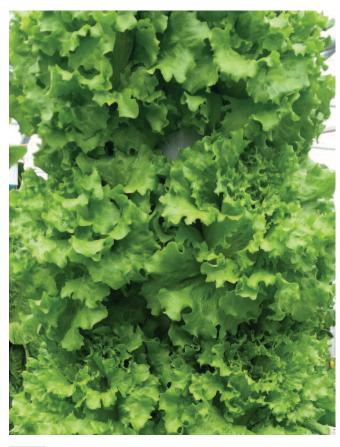
ENHANCED LABOUR PRODUCTIVITY

- ▶ better work environment
- ▶ user friendly and clean system
- ▶ upright/standing manual work
- ▶ labour efficient
- ▶ fast and easy to plant, harvest and operate

LAND FFFICIENT

- ▶ 3x to 4x yield increase per land area
- ▶ Faster crop production
- ▶ up to 25% more crop cycles per annum
- Utilise any land type
- > soil-less system makes land quality irrelevant
- areenfield or brownfield
- ▶ locate closer to point of sale





Cultivo hidropónico de verduras para ensalada y hierbas con resultados garantizados

ValeFresco, empresa productora de verduras para ensalada líder en el Reino Unido, suministra sus productos a cadenas de supermercados británicos como Waitrose, Tesco, Aldi, Lidl, Asda, Marks & Spencer, Morrisons y Sainsbury's, así como a distribuidores mayoristas y mercados étnicos.

Este productor de gran escala es experto en el cultivo en invernadero de túnel de polietileno, donde cultiva lechuga, rúcula, brotes, calabacines, tomates cherry, pak choi y otras hortalizas orientales.

Aunque los problemas surgidos en el sector de las verduras para ensalada, como los microbios y los cuerpos extraños, desanimaron a la empresa a cultivar sin sustrato, comenzaron a colaborar con Saturn Bioponics en la búsqueda de una solución viable para el cultivo hidropónico de pak choi.

Instalaron un sistema Saturn Grower en uno de sus 220 túneles de polietileno dedicado al cultivo del pak choi, que les permitió cultivar esta verdura fuera del suelo y aumentar la densidad de la cosecha de 20 a 75 plantas por m2.

En su primer ciclo de cultivo cosechado en marzo de 2016, ValeFresco triplicó su producción de pak choi por m2 de 3 kg en suelo a 9,2 kg en el sistema Saturn. La eliminación de los tiempos de inactividad entre cosechas, gracias a la esterilización interna y a la rápida recolección y replantación, y la aceleración del ritmo de crecimiento permitió a la empresa alcanzar 2,5 ciclos de cultivo en 12 meses y cuadruplicar su producción. Las mejoras obtenidas en el cultivo de la lechuga fueron igualmente

La calidad de la cosecha y la naturaleza limpia y fiable de la producción ha reportado a ValeFresco importantes nuevos contratos y ha mejorado su rentabilidad.



Top grower's passion for clematis drives exports into 19 countries



The Guernsey Clematis Nursery Ltd is recognised as the world's leading wholesale producer of young clematis plants to growers around the world, supplying three million plants annually, about 25% of global production.

Plants are exported from the nursery's 3.5ha state-of-the-art production centre on the picturesque island of Guernsey to 19 countries, with the UK, North America and Europe its biggest markets. The island, about 18 miles from the coast of France, enjoys a mild climate ideal for clematis.

The nursery, started by Raymond Evison with a one-acre (0.4ha) glasshouse site in 1985, employs up to 90 people at peak production periods, when as many as 30-45,000 cuttings are made each day.

The company is at the forefront of development of new varieties, working jointly with Poulsen Roser A/S on a sophisticated breeding programme.

Its approach is a model in how to market plants successfully. It not only sells plants, but offers a complete package that includes technical production advice, help with marketing and PR, lectures for consumers plus garden centre appearances and demonstrations in collaboration with growers and partners.

The latest and best cultivars, offered at reasonable prices, make up the widest selection available, with quality as the key word. Every new cultivar undergoes about 10 years of development, trial and assessment to guarantee that it is a reliable, free flowering and top performing clematis suitable for today's homes and gardens. It will have been monitored on outdoor sites



'Ooh La La', one of 100 new clematis introduced by Raymond Evison's Guernsey Clematis Nursery

in Denmark, California and the UK.

Growing conditions on the nursery are controlled entirely by computer and respect for the environment is embraced through an integrated pest management system, water recycling and the use of night screens to avoid light pollution.

Raymond's distinguished career has seen him introduce more than 100 clematis species and cultivars. They have been the feature of his numerous Gold medal winning exhibits at renowned flower shows like Chelsea (28 gold medals), Hampton Court, Philadelphia and Toronto.

La pasión por las clematis impulsa las exportaciones mundiales

El Guernsey Clematis Nursery es reconocido mundialmente como el principal productor mayorista de plantones de clematis de la máxima calidad, que vende a productores de todo el mundo. Este vivero suministra tres millones de plantas al año y acapara el 25% de la producción mundial. Las plantas se exportan desde el puntero centro de producción de 3.5 ha situado en la isla de Gernsev hasta 19 países distintos, siendo el Reino Unido, Norteamérica y Europa sus principales mercados.

El vivero, fundado por Raymond Evison en 1985, emplea a 90 personas en la temporada alta de producción, cuando se obtienen 30.000-45.000 estacas al día. La empresa colabora con Poulsen Roser A/S en el marco de un sofisticado programa de meiora genética. Cada nuevo cultivar supera un periodo aproximado de 10 años de desarrollo, ensayo y evaluación. Las nuevas variedades se someten a una supervisión en exterior en Dinamarca, California y el Reino Unido.

Durante su deslumbrante carrera profesional, Raymond ha creado más de 100 especies de clematis y cultivares, lo que le ha reportado numerosas medallas de oro.





Family nursery leads the way on the white asparagus Europe loves best

The UK consumer's preference is for traditional green asparagus but Cobrey Farms, the company that supplies English asparagus to premium UK retailers, started production three years ago of the white form favoured in most of Europe, particularly Germany and

The company uses tunnels and polythene to maintain supply from early spring into the autumn. However, white asparagus remains a niche product in the UK.

Chris Chinn (pictured,centre), a partner in the family firm that runs Cobrey Farms - the first grower to supply white asparagus commercially in the UK - says the white form finds favour with people who have experienced it in mainland Europe, especially chefs who are looking for something different.

It's a new market opportunity for asparagus growers, and a useful diversification in a poor season when green asparagus is late and is regarded as a future prospect for exports.

It is cultivated in the absence of light, with the shoots covered with soil as they grow. Without exposure to sunlight there is no photosynthesis and the shoots remain white. White asparagus is more fibrous than green and can take twice as long to cook. Many regard the flavour as superior to that of the green form.

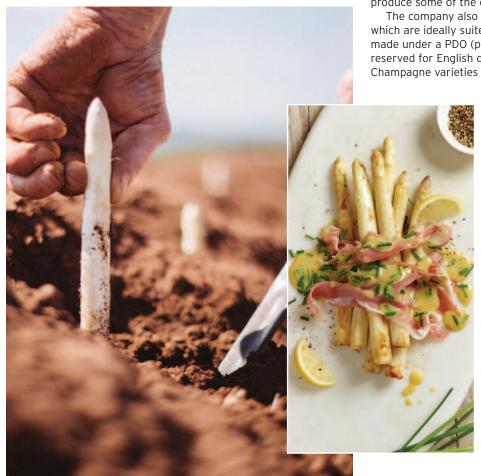
The asparagus is grown by the Wye Valley Produce division of Cobrey Farms. The Chinn family has been growing potatoes in and around the Wye Valley for four generations. With 8,500 tonnes of cold storage on site, they grow crisping potatoes and Maris Peer salad potatoes for supply throughout the year.



The asparagus is hand-harvested and hydro-cooled down to 2°C within one hour to ensure that it retains maximum freshness and flavour. It is cut from March to July, and September to October.

The Chinn family planted its first asparagus crop in spring 2003, and the Wye Valley brand has since expanded to include rhubarb, blueberries and green beans. The light, sandy soil and south-facing slopes of the meandering Wye Valley capture the earliest spring sunlight, and create a microclimate that is perfectly formed to produce some of the earliest, and best, produce in the UK.

The company also owns Castle Brook vineyard on these slopes, which are ideally suited to producing the finest grapes. Wines are made under a PDO (protected designation of origin) scheme reserved for English quality sparkling wines, using traditional Champagne varieties and methods.



Líderes del mercado del espárrago blanco

Cobrey Farms, empresa que suministra espárragos trigueros ingleses a los principales distribuidores del Reino Unido, comenzó hace tres años a producir la variedad blanca de esta hortaliza, muy popular en Europa, especialmente en Alemania y Francia. La empresa es el primer productor comercial de espárrago blanco del Reino Unido y emplea túneles y cubiertas de polietileno para prolongar la producción desde comienzos de la primavera hasta entrado el otoño. Aún en la actualidad, el espárrago blanco sigue siendo un producto nicho en el Reino Unido. Ofrece una nueva oportunidad de mercado para los productores de espárrago y permite diversificar los cultivos en las temporadas menos productivas, cuando la cosecha del espárrago triguero se retrasa. Se prevé que este cultivo experimentará un prometedor crecimiento en el mercado de las exportaciones.



Polythene covers that filter the light spectrum for better growth

Family-owned XL Horticulture is a UK-based supplier of the world's most advanced polytunnel polythene, smart films and spectral filter polythene and the world's most energy efficient SuperThermic polythene.

Drawing on more than 20 years experience running its own commercial nursery, the business has developed a deep specialised knowledge of the effect the light spectrum has on plant growth.

While plants have adapted to the variations in climate in different parts of the world, it's often the light spectrum they are growing under that influences their evolution. For example there is more UV the closer you get to the equator, which is why you'll get a sun tan far more quickly than under a forest canopy.

Because commercial nurseries aim to grow many plants that are not native to the Central/ Northern European light spectrum, XL Horticulture started to research ways in which the light spectrum reaching the plants could be modified to make it match, as far as was possible, the plant's natural light expectation.

Discussions with growers led to the development of improved covers for more efficient crop growth. All the company's polythene is trialled in conjunction with research stations, universities and growers - including its own commercial nursery tunnels - before it is brought to

"Poly tunnel covers are no longer just something to keep the rain out and keep it a bit warmer in winter," says XL's managing director, Les Lane. "They should really be called spectrum filters which help you grow much better plants."

Each product is developed to match the



needs of a specific crop or category of crops. For example, SunMaster Diffused, a UV-open film, gives plants the same spectrum of UV that plants would have if growing outside. It makes cell walls thicker, produces plants that are more compact and improves the colour of flowers, fruit or vegetables that have red or blue in their makeup. Research has shown that strawberries, for instance, will be ready for harvest about one week earlier than a standard film that normally blocks out UV below a certain level.

SunMaster SteriLite, on the other hand, is a UV-blocking film with the ability to reduce both fungal diseases, which need ultra-violet light to be able to reproduce and spread, and aphids, who see in UV - so if

you take it away, they can't fly. Research has also shown that plants will have more foliage under UV blocking, making SteriLite especially good for salad crops.

XL was the first UK company to offer diffused film 24 years ago. Extensive research has shown that in the northern hemisphere, better results are achieved with a medium-diffusion film than a highdiffusion film, because on most days there is some cloud cover, which diffuses the light already. Using a lower level of diffusion can deliver a higher overall light level, which is why all of XL's diffused films use the same medium diffusion.

XL was also the first to work on UV-open films and has been conducting trials with them since 2003.



Filtrado de la luz para un mejor crecimiento

XL Horticulture suministra los túneles de polietileno, films inteligentes y filtros de polietileno espectrales más avanzados del mercado. La empresa, que se vale de sus 20 años experiencia en la gestión de su propio vivero, ha desarrollado un conocimiento especializado en el espectro de la luz. Los viveros del norte y centro de Europa cultivan numerosas plantas no autóctonas, por lo que XL ha estudiado formas para consequir modificar el espectro de la luz y lograr asemejarlo a la expectativa natural de la planta. "Las cubiertas de túnel de polietileno ya no son una mera protección frente a la lluvia y el frío del invierno", afirma Les Lane, Director Ejecutivo de XL. "En realidad, deberíamos denominarlos filtros de espectro, que permiten cultivar plantas de una calidad muy superior."

Mientras que las cubiertas abiertas a la radiación UV replican el espectro UV que la planta recibiría en el exterior, lo que estimula un crecimiento compacto y mejora el color (una característica beneficiosa para frutas como la fresa, por ejemplo), las cubiertas de film que impiden el paso de la radiación UV minimizan la proliferación de hongos y áfidos al eliminar la luz ultravioleta que necesitan para prosperar, y fomentan el crecimiento de las hojas (beneficioso para las verduras de ensalada).











Russell IPM is the leading manufacturer of pheromone-based insect monitoring and control systems in the UK and one of the largest in Europe. Based in Deeside, North Wales, this innovation-led business markets its products in 45 different countries.

Pheromone based technology allows species-specific control of pests with little effects on beneficials. Russell IPM offers more than 150 pheromone lures for the management of agricultural, horticultural and commercial pests.

Technology like Russell IPM's pheromone traps, designed to tackle worldwide pests like thrips and whitefly, is likely to become more and more familiar in commercial horticulture as the pests develop increased resistance to most chemical controls.

Dr Clare Sampson, Russell IPM's horticultural development manager, reports that the company is working on a combined system using traps and bio controls natural predators - to adopt a 'belt and braces' approach. The natural enemies eat pests at larvae stage and traps are then added to catch the adults. "We are moving forward with bio as the main control, so the traps have to be compatible," Dr Sampson told the GrowQuip conference last year.

At Keele University, where Dr Sampson worked before joining Russell IPM, a joint project with Innovate UK focused on how to make traps more attractive to the target pests without increasing their attraction of natural enemies.

The project revealed that the colour and pattern of sticky traps used against whitefly played a key part in their efficacy. Dr Sampson reported that using a duller yellow attracted fewer non-target species than a brighter yellow, which attracted a wider range of natural enemies. In a summer trial last year, the newer colours had more than doubled the whitefly catch after six weeks.

A trial of different trap pattern showed

On the scent of pest control without the use of chemicals

that the use of too much black reduced the trap catch but certain patterns significantly increased it. "It's an ongoing trial and we're learning a lot about patterns," said Dr

Research into thrips (with western flower thrips as the main target) showed that this pest is attracted to very specific blue colour and traps with a higher reflectant surface. Thrips land in response to colour then an added pheromone doubles the trap catch.

An innovative trap developed by Dr Sampson for the protection of strawberry crops is being field-trialled across the UK. One model of the trap has already won an international Innovation Award.

Meanwhile, Dr Sampson continues to offer strawberry, ornamental, cucumber, pepper, potato and brassica growers advice on biological pest control as she helps Russell IPM to further improve and diversify its chemical-free solutions.

Russell is the winner of two Queen's Awards for Enterprise for International Trade and Innovation, including one in which the award committee cited the exceptional efforts made by the company to educate, forewarn and assist in identification of the fast-spreading pest Tuta absoluta across Mediterranean countries after the species caused huge damage to tomato crops across the region.



Feromonas para un control de plagas libre de guímicos

Russell IMP es el principal fabricante de sistemas de monitorización y control de insectos a base de feromonas del Reino Unido y uno de los más importantes de Europa. La empresa comercializa sus productos en 45 países.

La tecnología a base de feromonas permite controlar las plagas específicas de una especie con un mínimo impacto en el resto de especies beneficiosas. Russell ofrece más de 150 cebos a base de feromonas para la gestión de plagas comerciales, hortícolas y agrícolas.

La tecnología de las trampas ha sido diseñada para abordar las plagas de todo el mundo, ya que se espera que los trípidos o la mosca blanca sean cada vez más comunes en la horticultura comercial, y las plagas serán cada vez más resistentes a los controles auímicos.

Desde la Universidad de Keele, la empresa desarrolla un proyecto conjunto con Innovate UK centrado en diseñar trampas más atractivas para manejar las plagas sin aumentar el efecto llamada de sus depredadores naturales.

El proyecto reveló cómo los colores, los patrones y la reflectividad de las superficies de las trampas determina qué plagas son atraídas y el número de plagas no objetivo. La Dra. Clare Sampson, investigadora de Russell, ha desarrollado una innovadora trampa para proteger los cultivos de fresa que está siendo probada en campo y de la cual ya existe una versión galardonada con un premio internacional Innovation Award.





UK EXPERTISE IN: MACHINERY & EQUIPMENT

TW Hamilton Design Ltd

TW Hamilton Design Ltd, founded in 1979, is a small family business that designs and manufactures seed sowing machines for commercial greenhouse growers of ornamental and vegetable crops.

Its machines have been sold to more than 70 countries around the world. Although something of a niche market product, the business quickly established itself as a leader in its sector. Exporting more than 75% of its production over the years, Hamilton Design built up a distributor network in more than 20 countries and supplied direct to customers outside their dealer network.

Its ethos has always been to produce high quality products that are easy to operate, versatile, reliable, and with a high degree of longevity. Some of their original seeders are still in operation after 38 years of reliable service.

The choice of machinery ranges from simple hand-held devices up to high speed production machines for larger growers. The company prides itself on aftersales service and has built a reputation in the industry second to none.

All major components are manufactured by local companies and assembled in the company's Marlow workshop and office.

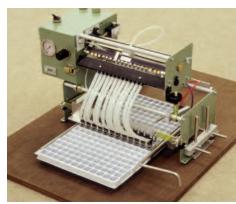
In 1998 Hamilton Design became a distributor of plant transplanting equipment manufactured by TEA Project Srl, in Reggio Emilia, Italy. These are sold in the UK, and



Above: the Hamilton Drum Seeder - top of the range seeder with facilities for dibbling, seeding, covering, and watering

Right: the Hamilton Natural Seeder - the original Hamilton Seeder that started the company off

internationally through Hamilton's distributor network. They work closely with TEA to provide cost effective solutions for all sizes of grower operations.



Hotbox International

Hotbox International, established in 1976, is a world-leading manufacturer of horticultural equipment.

Hotbox International has earned an enviable reputation for product innovation and customer service. Operating from purpose built manufacturing facilities in the United Kingdom, it supplies specialist equipment to commercial growers and keen amateur gardeners in more than 40 countries worldwide through a network of distributors.

The range of innovative products includes equipment for: sulfur vaporisation, bench heating, propagation, glasshouse heating, air circulation and CO² generation. All products are built from high quality materials and comply fully with all European CE EMC and low voltage regulations. The company fully guarantees the quality and reliability of everything it makes; many of its early pieces of equipment are still in use today.





UK EXPERTISE IN: GROWING MEDIA & FERTILISERS

Botanicoir

Botanicoir is an experienced manufacturer and supplier of high quality coir (cocopeat) products, specialising in grow bags and other products for soft fruits, salads and flowers.

It currently supplies coir to growers in more than 40 countries, as well as to some of the UK's leading substrate manufacturers. The company has developed crop-specific coir blends to suit various crop needs relating to rooting, moisture levels and nutrient requirements, among other factors.

At its production facility in Sri Lanka, conveniently situated in the 'coconut triangle', strict production procedures ensure the quality of its cocopeat products.

Once the raw material reaches the processing plant, it is thoroughly washed, buffered and dried in the sun before compression to ensure the products are



light and easy to handle.

Having worked for many years with some of the world's biggest soft fruit growers, Botanicoir was able to launch its new Precision Plus growing bag after extensive trialling and a significant investment.

Its specific blend of coir particle sizes best suited to strawberry crop production offers very good drainage and air-fill porosity, industry-leading water and nutrient holding capacity, excellent structural integrity and longevity.

Stephen McGuffie, Production Director of

New Farm Produce in the UK, who pioneered the use of coir for fruit crops, said: "We have seen more rapid root development after planting, with no risk of root death due to poor drainage. We have managed the moisture levels to the point where we can operate at much reduced levels of runoff over an extended period of time with no adverse effect on the production. As a result further savings in fertiliser usage have been achieved. If we can extend bag life to 3 to 4 years, then this really benefits the economics of a system."



Bulrush Horticulture

Bulrush Horticulture, based in N Ireland, concentrates on the UK and Irish markets and supplies primarily professional growers with high quality growing media to meet the demands of every horticultural cropping sector in the market.

Ornamental horticultural production is the largest proportion of sales but, increasingly the edible and specialist cropping sectors are gaining importance.

Sales growth has been the result of heavy investment in the most modern production facilities and the company has also led the way in the introduction of new non-peat materials to the market to enable the industry to be more responsible in its supply chain choices in future, whilst

maintaining and improving product quality and performance in the process.

Bulrush's current customer base includes the majority of the major plant producers in the UK, with whom the company works closely to ensure that it can provide the best quality and consistency of products and the best level of service in terms of logistics, account management and technical advice.

As the industry continues to develop and evolve Bulrush Horticulture aims to remain at the forefront as a recognised quality supplier by increasing research and development effort to bring the new products required for the next generation of arowers.

Hortifeeds

Hortifeeds, founded 22 years ago, specialises in manufacturing high quality 'fresh' fertilisers and supplying direct to growers to give them more alternatives to 'off the shelf' fertilisers.

It uses only the finest raw materials and provides growers with a level of personal and technical service that is acknowledged as second to none. It also offers a unique, bespoke service: the capability to blend formulations to meet specific customer needs or conditions. Today, almost 20% of its total production is custom-blend feeds.

The company's field-based technical advisors and agronomical team helps customers to formulate feed plans and



application specifics achieve optimum crop

Hortifeeds is part of the Synchemicals Group, owners of Vitax, a leading UK manufacturer and suppliers of fertilisers and associated products for the home and

garden, specialist turf and amenity markets. Under Synchemicals, investment continues with the addition of modern plant and machinery; what started as a small UK business now supplies products and expertise to Europe and the Middle East.





Dr Phillip Davis inspects a crop [image: Stockbridge Technology Centre]

LED lights set to transform protected crop production

A project funded by AHDB at Stockbridge Technology Centre (STC) is helping the protected crops industry learn how to manage the light spectrum to control plant growth and development.

Dr Phillip Davis, Applied Photo-Biologist at Stockbridge, says the number of growers exploring the use of LEDs is increasing at a considerable rate in the UK, with several high profile installations in the edibles, ornamentals and soft fruit sectors. "Many growers are quietly investing in LED lighting so it can sometimes appear like LEDs are less widely used than they are," said Dr

The benefits of LED lighting can mean considerable energy savings and spectral manipulation to influence plant characteristics. Plant quality is better under LED and may remove the need for plant growth regulators.

STC's research is measuring important plant responses to different wavelengths of

light from LEDs. For example, it has demonstrated positive impacts of blue wavelengths on primary and secondary metabolism in microgreen and baby leafy green brassica crops.

In an industrial scale trial, tomatoes are being grown in natural sunlight during the day and under LEDs after dark, with the ultimate objective of being able to supply supermarkets with locally-grown tomatoes all the year round, without compromising on flavour or nutritional value.

Dr Davis said: "I am confident that LEDs form a large part of the future of the horticulture industry from both an energy perspective but perhaps more importantly from the perspective of optimising crop production. The work we are currently performing at STC is creating the basic knowledge that is required to make the best use of lights and identify sectors of the industry that can benefit from lighting technology."

Las luces LED transformarán la producción de los cultivos

Un proyecto financiado por la AHDB y desarrollado en el Stockbridge Technology Centre (STC) está ayudando a los productores a gestionar el espectro de luz para controlar el desarrollo de las plantas.

El Dr. Phillip Davis, experto en fotobiología aplicada de Stockbridge, está convencido de que los LED desempeñarán un papel importante en el futuro de la horticultura. Entre los beneficios de esta tecnología cabe destacar un importante ahorro energético v la manipulación del espectro para influir en determinadas características vegetales. La calidad de las plantas es superior al exponerlas a la luz LED, que puede lograr acabar con la necesidad de usar reguladores de crecimiento vegetal.

Las investigaciones del STC han demostrado el efecto positivo de la longitud de onda azul sobre el metabolismo primario y secundario de algunos

El objetivo del ensayo a gran escala con el cultivo del tomate es poder ofrecer una cosecha nutritiva y sabrosa durante todo el año.



Food transport refrigeration that runs on thin air...

How society delivers clean and sustainable cold is a major issue, given the global challenges of food scarcity, changing demographics and growing energy demand.

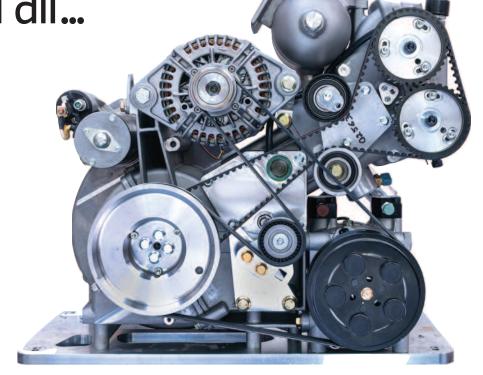
UK technology company Dearman, with its cutting-edge clean cold and power technologies, and world-class engineering expertise, is well-placed to make the world a cleaner and cooler place.

Fleet managers have long understood the importance and challenges of transport refrigeration. Now the rest of the world is beginning to catch on. Governments and local authorities have realised the significance of cold chain emissions of greenhouse gases, local air pollution and noise. The Dearman Transport Refrigeration Unit (TRU) enables fleet managers to prepare for the toughest emissions regulations while also maintaining efficiency and profitability.

The Dearman TRU is the first to meet all environmental challenges - and set new industry performance standards - all without having to compromise on cost. Powered by the revolutionary Dearman engine, and fuelled by liquid nitrogen (LiN), the system is low carbon, zero-emission, quiet, efficient and cost-effective. What's more, it outperforms conventional diesel units in cooling power, speed and accuracy.

Traditionally many refrigerated trucks require two diesel engines, one to power the vehicle and one for the refrigeration unit. By replacing the latter, Dearman believes that a more sustainable solution for refrigeration may soon be widely adopted





on Britain's roads.

The Dearman TRU displaces diesel with liquid nitrogen, reducing lifecycle carbon dioxide emissions typically by 30%-85%, and potentially by 95% (when renewable electricity is used for LiN production).

The unit eliminates nitrogen oxide and particulates, the emissions of which from a diesel TRU are many times higher than those of a Euro VI truck propulsion engine. The Dearman system could reduce the truck's total engine emissions by more than 70% for nitrogen oxide and more than 90% for particulates. Since the Dearman TRU is zero-emission, it could operate in cities planning to regulate the use of diesel.

Dearman analysts estimate that if the 1 million-strong EU TRU fleet were replaced with zero-emission alternatives, it would equate to taking 50 million Euro VI diesel cars off the road.

Supermarket giant Sainsbury's recently decided to extend its trial of a delivery truck fitted with Dearman's refrigeration unit as it plans a wider rollout.

The retailer said the truck, first trialled in summer 2016, had saved 5.9 tonnes of carbon dioxide emissions over a 10-month period.

A larger semi-trailer is due to be added this summer to further test the technology.

The trial is part of Sainsbury's commitment to reduce absolute carbon emissions by 30% and relative emissions by 65% from 2005 to 2020.

Sainsbury's was the first company in the world to introduce a refrigerated delivery truck cooled using a liquid nitrogen engine.

Transporte de alimentos refrigerados sin diésel..

La empresa de tecnología británica Dearman, que cuenta con las tecnologías más avanzadas de energía y refrigeración limpia y con el mejor conocimiento experto de ingeniería, ha asumido la misión de hacer del mundo un lugar más limpio y fresco.

La Unidad de Refrigeración de Transporte (TRU, por sus siglas en inglés) de Dearman permite a los responsables de flota adaptarse a las estrictas normativas en materia de emisiones sin renunciar a la eficiencia y la

La TRU de Dearman, la primera solución capaz de cumplir todos los requisitos medioambientales sin sacrificar los costes, emplea el revolucionario motor Dearman v funciona con nitrógeno líquido, lo que reduce su huella de carbono y la hace más silenciosa, eficiente y rentable. Ofrece un rendimiento superior al de las unidades diésel convencionales con cero emisiones, por lo que puede operar en ciudades con restricciones al uso de combustible diésel.

Según las estimaciones de Dearman, la sustitución de una flota de un millón de TRU en Europa por alternativas con cero emisiones eguivaldría a retirar de las carreteras 50 millones de coches diésel Euro VI.







Training tomorrow's horticulturists

The UK's key land-based colleges and training providers



Askham Bryan College

Askham Bryan York Y023 3FR

T: +44 (0)1904 772277

E: enquiries@askham-bryan.ac.uk W: askham-bryan.ac.uk

Askham Bryan College, opened in 1948, is the largest provider of specialist land-based further education in England, with campuses in Yorkshire, Cumbria and the North-East. A recent £10m investment has resulted in new buildings and educational facilities, including a state of the-art wildlife and conservation park facility at York.





Capel Manor College

Capel Manor College

School of Horticulture & Landscaping Bullsmore Lane **Enfield** Middlesex

EN1 4RQ

T: +44 (0)303 003 1234

E: enquiries@capel.ac.uk

W: capel.ac.uk

Capel Manor has been a centre for horticultural studies since 1968 with a reputation for excellence and strong links with industry. Students work in 13.75Ha of gardens at Enfield and gardens in London, as well as work experience within the industry.



Reaseheath College

Nantwich Cheshire CW5 6D

T: +44 (0)1270 625131

E: enquiries@reaseheath.ac.uk

W: reaseheath.co.uk

Specialist landbased college set in 330Ha of farms, parklands, lake, woodland and sports facilities. Courses available for further education, higher education, 14-16s and adult learners





Hadlow College

Main site: Hadlow. Tonbridge Kent TN11 OAI T: +44 (0)1732 850551 E: enquiries@hadlow.ac.uk

W: hadlow.ac.uk Horticulture Skills Centre: Shooters Hill, London

SE18 3HP T: +44 (0)20 8319 4845 E: rbg@hadlow.co.uk

Specialist land-based college across Kent,



with campuses at Hadlow, Mottingham and Canterbury. Horticulture courses cover production horticulture, amenity horticulture and elements of design and commercial awareness. Degree courses in horticulture and garden design in partnership with the University of

Greenwich are also offered.





Brooksby Melton College (BMC)

Brooksby Campus Brooksby Leicestershire LE14 2LJ

T: +44 (0)1664 850850

E: visit the website

W: brooksbymelton.ac.uk

BMC is an independent college specialising in land-based courses on its Brooksby campus, including horticulture, plus an apprenticeships programme for employers. It recently benefitted from a £27.7m investment in new and renovated facilities across both Brooksby and Melton campuses. BMC was ranked top in the East Midlands for achievement among 16-18-year-olds across all levels in a recent review.







WR10 3JP

Pershore College

(part of the Warwickshire College Group) Avonbank Pershore Worcestershire

T +44 (0)300 456 0047

E: info@warwickshire.ac.uk

W: warwickshire.ac.uk

A national centre for horticulture situated on a 60Ha site near Evesham, Pershore College offers land-based learning with high-quality facilities, including a new science and technology centre. The site is also a regional centre for the Royal Horticultural Society (RHS), who offer courses, lectures and workshops.



Myerscough College

Myerscough College

St Michael's Road Bilsborrow Preston. PR3 ORY

T: +44 (0)1995 642222

E: Go to website

W: myerscough.ac.uk

Myerscough College is a land-based higher and further education college with outstanding facilities and a pioneering original reseach programme that includes sustainable food production and arboriculture.







Writtle University College

Lordship Road Writtle Essex CM12 3RR

T: +44 (0)1245 424200

E: info@writtle.ac.uk

W: writtle.ac.uk

Established in 1893, Writtle University College is a provider of land-based animal, environmental, design and sport education. Set in 220Ha with landscaped gardens, animal units, working farms, research laboratories and design studios, it achieved university college status in 2016.





Important organisations in UK horticulture

Organizaciones importantes en la horticultura de UK

The Agriculture & Horticulture **Development Board**

Stoneleigh Park Kenilworth Warwickshire CV8 2TL T: +44(0) 24 7647 8724 W:ahdb.org.uk

The AHDB is a statutory levy board, funded by farmers, growers and others in the supply chain and managed as an independent organisation (independent of both commercial industry and of Government). AHDB Horticulture, formerly Horticultural Development Company (HDC), was established in 1986 with a remit to fund research and development and communicate results to growers. AHDB Horticulture has responsibility for more than 300 horticultural edible and ornmamental crop interests.

British Growers Association

BGA House Nottingham Road Louth Lincolnshire LN11 OWB T: 01507 602427

E: postbox@britishgrowers.org

W: Britishgrowers.org

British Growers Association is an umbrella group representing a range of organisations in the UK horticulture industry and fresh produce sector. The membership includes crop associations, producer organisations and marketing groups. British Growers also offers a focal point for UK

horticulture. Its aim is to raise the profile of UK horticulture by encouraging a greater understanding of the industry and its importance to the UK economy.

Chartered Institute of Horticulture

Horticulture House Chilton Didcot **OX11 ORN**

T: +44 (0)3330 050181 E: cih@horticulture.org.uk

W: horticulture.org.uk

The CIH is open to any professional within the horticultural industry. The membership covers a huge range of sectors and disciplines. The Institute of Horticulture was established in 1984 with the aim of fostering a close relationship between all sectors of professional horticulture throughout the UK and Ireland. In 2014 it was granted the Royal Charter - recognition of the status of horticulture as a profession which demands high level skills and continuing professional development.

The Commercial Horticultural **Association**

The White House **High Street Brasted**

TN16 1JE, UK

T: +44 (0) 1959 565 995 E: info@cha-hort.com W: www.cha-hort.com

The CHA is the British trade association for manufacturers and suppliers of plants, products and services to commercial growers of ornamentals and fresh produce. The CHA promotes its members' products and services, plus the interests of British horticulture, throughout the world at trade shows and via embassies and consulates. Working closely with the Department for International Trade (DIT), the CHA helps UK companies to explore international markets and to assist overseas partners to develop relationships with UK stakeholders.

The Horticultural Trades Association

Horticulture House Manor Court Chilton, Didcot Oxfordshire. **OX11 ORN** T: +44(0)333 003 3550

W: hta.org.uk

The HTA is the trade association for the UK garden industry representing members from across the supply chain including retailers, growers, landscapers, manufacturers and service providers. The association helps its members to flourish by representing, promoting and developing the garden industry through its key values collaboration, innovation, influence and integrity.

The International Plant Propagators' Society

C/o Growtrain Ltd 8 Woodhorn Business Centre Woodhorn Lane Oving Chichester West Sussex P020 2BX T: +44 (0) 1243 216278

W: ipps.org

The IPPS is an international association of plant production professionals whose aim is to improve the professionalism, knowledge and skills of its members. They are involved in the transfer of knowledge on a practical level, have a bursary scheme that funds annual study trips for young horticulturalists, welcome new members and organise regional meetings across Europe.

Fresh Produce Consortium

Minerva House Minerva Business Park Lynch Wood **PETERBOROUGH** PE2 6FT T: +44(0)1733 237117 W: freshproduce.org.uk

The FPC is the UK's fresh produce trade association with membership covering the complete spectrum including growers, importers, wholesalers, retailers, distributors, processors, packers, food service companies and other organisations. They organise the Fresh Awards.

The British Protected **Ornamentals Association**

PO Box 691 Chichester, P019 9NA T: 01243 784699 E: bpoa@btconnect.com

W: nfuonline.com/sectors/british-protectedornamentals-association/

The BPOA, a specialist group of the NFU.was founded in the late 1970s and represents the interests of growers involved in the production of British ornamental plants grown under protection. Over the years, the scope of the association has expanded beyond bedding plants to all British ornamental plants grown under in glasshouses or other structures that provide protection from the elements. It is a trade association representing both growers and the allied trade within this sector of horticulture. Its primary aim is to ensure that resources are directed towards grower's needs for R&D, marketing and political representation.

National Farmers Union Horticulture & Potatoes Board

Agriculture House Stoneleigh Park Stoneleigh Warwickshire CV8 2TZ T: 024 7685 8500

W: nfuonline.com/sectors/horticulture-andpotatoes/

The board works to protect growers' interests and create opportunities for their businesses. The fruits, vegetables, plants and flowers British growers produce underpin the health and well-being of the nation, and the businesses support the rural economy. NFU lobbies government and opinion formers to ensure growers' businesses can continue to thrive..



Directory of suppliers Directorio de proveedores

Agralan Ltd

The Old Brickyard Ashton Keynes **SWINDON** Wiltshire SN6 6QR

Tel: +44(0)1285 860015 Email: sales@agralan.co.uk Web: www.agralan.co.uk

Aline Fairweather Ltd

Hilltop Nursery **BEAULIEU** Hampshire SO42 7YR

Tel: +44(0)1590 612113 Email: patrick@fairweathers.co.uk Web: www.fairweathernursery.co.uk

Alpha Bio Control

St John's Innovation Centre Cowley Road **CAMBRIDGE** CB4 OWS

Tel: + 44(0)1223 911766 Email: info@alphabiocontrol.com Web: www.alphabiocontrol.com

APS Biocontrol Ltd

Prospect Business Centre Gemini Crescent Dundee Technology Park **DUNDEE** DD2 1TY

Tel: +44(0)1382 561696 Email: hello@apsbiocontrol.com Web: www.apsbiocontrol.com

Bioline Production Ltd

Telstar Nurserv Holland Road LITTLE CLACTON Essex CO16 9QG

Tel: +44(0)1255 863216 Email: sales@biolineagrosciences.com Web: www.biolineagrosciences.com



Biotechnica

Kings Cliffe Industrial Estate Wansford **PETERBOROUGH** PE8 6PB

Tel: +44(0)1780 781368 Email: info@biotechnica.co.uk Web: www.biotechnica.co.uk

Botanicoir Ltd

The Lightbulb Unit 22, 1 Filament Walk LONDON SW18 4GQ

Tel: +44(0)207 118 0788 Email: charlotte.m@botanicoir.com Web: www.botanicoir.com

Bpi.visqueen

Lundholm Road Ardeer **STEVENSTON Avrshire KA20 3NQ**

Tel: +44(0)1294 605111 Email: hortenquiries@bpipoly.com Web: www.bpivisqueenhort.com

Bulrush Horticulture Ltd

Newferry Road Bellaghy **MAGERAFELT** County Londonderry Northern Ireland **BT45 8ND**

Tel: +44(0)28 7928 6555 Email: jh@bulrush.co.uk Web: www.bulrush.co.uk

Cambridge Consultants Ltd

Science Park Milton Road CAMBRIDGE Cambridgeshire CB4 ODW

Tel: +44(0)1223 420024

Email:

darina.cotterill@cambridgeconsultants.com Web: www.cambridgeconsultants.com

Cambridge HOK

Wallingfen Business Park 236 Main Road Newport **BROUGH** East Yorkshire HU15 2RH

Tel: +44(0)1430 449440 Email: noel@cambridgehok.co.uk Web: www.cambridgeglasshouse.co.uk

Ceravision Ltd

Ceravision House Sherbourne Drive Tilbrook MILTON KEYNES MK7 8HX

Tel: +44(0)1908 379444 Email: info@ceravision.com Web: www.ceravision.com

Cousins of Emneth Ltd

The Forge Hungate Road Emneth WISBECH Cambridgeshire **PE14 8DE**

Tel: +44(0)1945 584600 Email: sales@cousinsofemneth.co.uk Web: www.cousinsofemneth.co.uk

David Austin Roses

Bowling Green Lane Albrighton WOLVERHAMPTON West Midlands WV7 3HB

Tel: +44(0)1902 376321

Email: wholesale@davidaustinroses.co.uk Web: www.davidaustinroses.com

Engage Agro Europe Ltd

Chorley Business & Technology Centre **Euxton Lane** Fuxton **CHORLEY** Lancashire PR7 6TE

Tel: +44(0)1257 226590 Email: info@engage-agro.com Web: www.engageagroeurope.com

Farm Fos Ltd

Builth Farm Eau Withington HEREFORD Herefordshire HR1 3NQ

Tel: +44(0)1432 851822 Email: tom@farmwell.co.uk Web: www.farm-fos.com



Garford Farm Machinery Ltd

Hards Lane Frognall Deeping St James PETERBOROUGH Cambridgeshire PF6 8RP

Tel: +44(0)1778 342642 Email: info@garford.com Web: www.garford.com

Guernsey Clematis Nursery Ltd

Domarie Vineries Les Sauvagees ST SAMPSONS Guernsey Channel Islands GY2 4FD

Tel: +44(0)1481 245942 Email: Ireid@guernsey-clematis.com Web: www.guernsey-clematis.com

INDO Lighting Ltd

Unit 18-19 Chancerygate Business Centre **SOUTHAMPTON** Hampshire S015 0AE

Tel: +44(0)203 0511687 Email: rhatch@indolighting.com Web: www.indolighting.com

It's Fresh

2 Medway Court Cranfield Technology Park University Way **CRANFIELD Bedfordshire** MK43 OFQ

Tel: +44(0)1234 889130 Web: www.itsfresh.com

TW Hamilton Design Ltd

Unit 2, Temple Farm Bradenham Lane MARLOW Buckinghamshire SL7 1RZ

Tel: +44(0)1628 826747 Email: info@hamilton-design.co.uk Web: www.hamilton-design.co.uk

Hargreaves Plants Ltd

Church Farm Station Road Hillington KING'S LYNN Norfolk PF31 6DH

Tel: +44(0)1485 609252 Email: sales@hargreavesplants.com Web: www.hargreavesplants.com

Hortifeeds/Nutrel Products

Park Farm Park Farm Road Kettlethorpe LINCOLN Lincolnshire I N1 2I D

Tel: +44(0)1522 704404 Email: andy.judd@hortifeeds.co.uk Web: www.hortifeeds.co.uk

Hotbox International

Wallingfen Business Park 236 Main Road Newport **BROUGH** East Yorkshire HU15 2RH

Tel: +44(0)1430 444040 Email: sales@hotboxworld.com Web: www.hotboxworld.com

Househam Sprayers

The New Forge Leadenham LINCOLN Lincolnshire LN5 OPE

Tel: +44(0)1400 276000 Email: exportsales@househamsprayers.com Web: www.househamsprayers.co.uk/en/

Hydrogarden Wholesale Supplies

Unit 2, Progress Way Binley Industrial Estate COVENTRY West Midlands CV3 2NT

Tel: +44(0)2476 651500 Email: stephen.f@hydrogarden.co.uk Web: www.hydrogarden.com

Hypro EU Ltd

Station Road Longstanton **CAMBRIDGE** Cambridgeshire **CB24 3DS**

Tel: +44(0)1954 260097 Email: info@hypro-eu.com Web: www.hypropumps.com

Ifor Williams Trailers Ltd

Cvnwvd CORWEN Denbighshire L I 21 OLB

Tel: +44(0)1490 412626 Email: sales@iwt.co.uk Web: www.iwt.co.uk

Martin Lishman Ltd

Unit 2B. Roman Bank **BOURNE** Lincolnshire PE10 9LQ

Tel: +44(0)1778 426600 Email: sales@martinlishman.com Web: www.martinlishman.com

MMSoul (UK) Ltd

T/A Castlefield Unit 4 Conyers Trading Estate Station Drive, Lye **STOURBRIDGE** West Midlands DY9 8EH

Tel: +44(0)1384 424232 Email: nic@mmsoul.co.uk Web: www.castlefieldproducts.com

A division of Cawood Scientific

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Omex Agrifluids Ltd

Bardney Airfield Tupholme LINCOLN Lincolnshire LN3 5TP

Tel: +44(0)1526 396000 Email: royr@omex.com Web: www.omex.co.uk

PBS International Freight Ltd

PBS House Charlwood Road Lowfield Heath **CRAWLEY** West Sussex RH11 OPT

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PBS International

Salter Road **Fastfield SCARBOROUGH** North Yorkshire Y011 3UP

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Phytoponics Ltd

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Plant Marketing International Ltd

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The Plastic Printing Co (PPC Labels)

The Print Works 16 & 18 Pate Road MELTON MOWBRAY Leicestershire LE13 ORG

Tel: +44(0)1664 738788 Email: jeremy@ppclabels.co.uk Web: www.ppclabels.co.uk

Plater Bio

Plater Group High Street West **GLOSSOP** Derbyshire **SK13 8ES**

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Polymateria Ltd

Imperial College London I-Hub White City Campus 80 Wood Lane LONDON W12 OBZ

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Russell IPM Ltd

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SoilEssentials

Hilton of Fern Farm Brechin **ANGUS** Scotland DD9 6SB

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Solufeed Ltd

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Thermoforce Ltd

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Tyne Moulds & Machinery

Warwick Street NEWCASTLE-UPON-TYNE Tyne and Wear NE2 1BB

Tel: +44(0)191 261 5757 Email: info@tvnemoulds.co.uk Web: www.tynemoulds.co.uk

Uniaro Ltd

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Vitax Ltd

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Whetman Pinks

Houndspool Ashcombe Road **DAWLISH** Devon FX7 OOP

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XL Horticulture

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The Federation was founded in 1961 with the trading name of Gardenex and has the twin aims of helping British garden and leisure product and service companies to achieve their export potential and helping overseas trade buyers to source British garden products. The Federation has grown substantially over the years in membership and in services offered.

In 2006 the Federation formed a separate division, PetQuip (the International Trade Association of Pet Equipment Suppliers) in order to assist and promote the development of international trade in the pet equipment sector. Further expansion in 2009 saw the Federation take responsibility for the administration of the Commercial Horticultural Association and this is adding a new dimension to the UK and international activities of the CHA.

A significant part of the Federation's services involves lobbying government for exhibitor grants and the meticulous planning of British groups of exhibitors at international trade shows around the world; the Federation is one of the top 10 trade associations accredited by the British government for the high standards it attains. Experienced support is provided to firms to ensure that they achieve the maximum success while at the shows and in the overseas sales follow-ups. The Federation works closely with British embassies and consulates in order to achieve this aim. Among the many other

Below: Gardenex offers its members frequent representation at international trade shows via the Federation's British industry information stands

Right: Gardenex gives British suppliers access to government subsidies to enable them to exhibit at international trade shows





services offered to member companies are: ■ Regular 'Meet the Buyer' events where British suppliers have one-to-one discussions with key overseas buyers ■ Representation at international trade shows via the Federation's British industry

Access to government subsidies to exhibit at international trade shows

information stands

Opportunities to participate in outward and inward missions involving major buyers ■ Exclusive research on consumer and retail trends, distribution patterns and important trade customers in overseas markets ■ Providing access to our exclusive database containing contact details and important market information on major importers, retailers, central buying

organisations and agents in nearly 50 export markets

- An export telephone help-line
- an intellectual property protection service
- A design deposit scheme
- Direct sales leads from international buvers
- International trade press coverage Stand space discount at shows such as Independent Garden Centre Show in Chicago and the UK's garden trade show, Glee ■ regular magazines containing topical export and industry news, information bulletins and newsletters.

The Federation is continually adding to its services and looks forward to working with CHA members to expand their businesses in 2018 and beyond.



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The Department for International Trade is the Government Department that helps UK based companies succeed in the global economy. We also help overseas companies bring their high quality investment to the UK's dynamic economy, acknowledged as Europe's best place from which to succeed in global business.

To talk more about how DIT can help with your plans in the UK agri-tech sector please email agritech@trade.gsi.gov.uk

In partnership with:





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