

The Horticulturist



Fifty years and counting... of Palmstead Nurseries

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FROM THE PRESIDENT

The hidden benefits of horticulture for human health

On 7 January the Chartered Institute of Horticulture (CIH) moved its secretariat services to the British Growers Association (BGA), based in Louth, Lincolnshire. BGA specialises in providing administrative and accountancy support to horticultural associations. My thanks go to Jack Ward, CEO of British Growers, and the Management Team of CIH for completing this transfer of business over the festive season.

Members will be delighted to know that our membership continues to grow with 1,116 full, 111 Chartered and 670 students. The delivery of Chartership to members is high on the agenda for the Council over these next two years. Chartership is a formal qualification awarded to a member in recognition of a particular level of competence. This usually depends on being able to present a portfolio of evidence of continuing professional development (CPD) collected over a specific period of time. CPD involves planning, recording, reviewing and reflecting on learning and development.

The Education and Qualification Committee is developing further routes to Chartership and refining our CPD offering to enable a seamless submission of CPD recording. We will be working with other partners to deliver a programme of CPD for a 2020 launch. The Royal Society of Biology, The Landscape Institute and The Institution of Environmental Sciences will be some of the key partners.

The committee will be offering a multiplicity of routes to Chartership. The new programme will reach out to students, new entrants and career changers, providing short intensive academic and professional courses for Chartership. The committee has also established academic credits for these courses in conjunction with the AgriFood & Training Partnership (AFTP). My thanks to Dr David Elphinstone and his committee for this valuable work.

I was delighted to be a guest of the AHDB at its SmartHort conference in March. This two-day conference in Stratford reviewed progress in automation, innovation, artificial intelligence and data handling. Robotics will play a stronger role in production horticulture in the next ten years as will big data. It is also evident that horticulture will have as many allied professionals as trained horticulturists involved in the growing and management of crops. Self-sufficiency, provenance, pests, plant miles, packaging, localism and an increasing desire to be connected with the soil, will be the drivers for a strong production horticulture sector in the post-Brexit debate era. I believe British and Irish growers are poised to take a lead in this new scrutiny of food and non-food production.

Finally, I look forward to seeing many members on our stands at industry professional shows, at YHoY events, CIH regional meetings and at the AGM at Pershore College on Saturday 1 June.

Gerald Bonner C Hort FCIHort, President

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CIH on Facebook: CIHort and Twitter: @CIHort



The Horticulturist

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INNOVATIONS IN BIOLOGICAL CONTROL

PEST CONTROL

Adrian Jackson provides a comprehensive insight into the latest developments in biological control.





Biological control is a significant strategic method used in the management of a wide range of economically important pests. The biological control concept encompasses a broad range of macro-beneficial species and micro-organisms which can be combined within multi-faceted crop protection protocols.

Predators take control against thrips in strawberry

Commercial biological products can be used in many crops including aubergine, bedding plants, medicinal cannabis, cucumber, nursery stock, peppers, pot plants, raspberry, strawberry and tomato. A typical programme for protected strawberry crops involves the release of several beneficial species to control aphids, thrips, spider mite, tarsonemid mites and vine weevil. To counter the development of thrips, the predatory mite *Neoseiulus cucumeris* is released at regular intervals throughout the crop. Releases commence just before the first flowers open. This predator is introduced in breeding sachets, which are placed at set intervals in the crop canopy. Well developed canopies, in which the leaves of adjacent plants are touching, enables this predator to roam from plant to plant along the row in search of its prey.

Alternatively, or in addition to the use of sachets, *N. cucumeris* is introduced manually from a shaker bottle that contains thousands of mites in a bran-based carrier material. This 'loose' product can also be applied mechanically using a tractor-mounted Koppert Rotabug. Whilst *N. cucumeris* is the primary predator in the war against the thrips species *Frankliniella occidentalis* (western flower thrips/WFT), it is less effective against *Thrips fuscipennis* (rose thrips). Another limitation is that it will only attack WFT's smallest larval instar.

Consultant entomologist Jasper Hubert, who advises some of the largest UK strawberry growers, also advocates the use of the predatory bug *Orius laevigatus*. Jasper commented, "The vast majority of control is achieved by *N. cucumeris*, but you can't rely on this predator alone. As there are many different situations that can arise in the crop over time, it is essential to introduce *O. laevigatus* around mid-May, so it has time to establish before thrip populations increase later." Since it is a flying predator it can move around the crop more freely in search of prey, and it can attack all stages of a thrip's life-cycle including the adults.

Additional solutions for glasshouse crops

Some predators and parasites do not have a DEFRA licence that would permit their use in partially open Spanish tunnels in which UK strawberry crops are grown. Examples include *Amblydromalus limonicus*, *Amblyseius swirskii*, *Eretmocerus eremicus* and *Neoseiulus californicus*. However, their use is permitted in glasshouses where the requirements for their containment can be met. These release licences have significantly increased a grower's biocontrol armoury for pest control in a wide range of glasshouse crops. Consultant agronomist David MacDonald has provided technical advice to prominent salad and ornamental growers over many years. David



commented, “The availability of new biological control agents is always welcome. This enables me to offer a wider range of biological solutions to the commercial grower, which can be used to build robust programmes that can combat a wider range of pests. When I can recommend a biological solution, it means that the grower doesn’t have to use a pesticide, so the whole food chain from producer to consumer will benefit.”

The Swirski product range

Over the next few years growers will see further innovations appearing on the UK market. One of the most recent introductions was Ulti-Mite Swirski – a tall but relatively narrow foil sachet containing a breeding colony of the predatory mite *A. swirskii*. The sachet design and formulation

create ideal conditions for the multiplication of the breeding colony over a period of approximately six weeks. Once introduced into the crop, predators begin to navigate their way to the plant surface in search of suitable prey. Even if exposed to intense direct sunlight the internal humidity is maintained which is favourable to the breeding population inside. The sachet is also water-resistant – important in nursery environments which use overhead irrigation systems. *A. swirskii* is an efficient predator of both thrips and whiteflies and is widely used as part of an Integrated Pest Management (IPM) programme in glasshouse-grown cucumbers, peppers and ornamentals. It also feeds on tarsonemid mites, two-spotted spider mites and pollen. A pollen source may be important for survival especially if a natural pest

source of food is in limited supply. During regular crop scouting missions *A. swirskii* is usually found in large numbers often located close to the central vein on the lower leaf surface. This contrasts with *N. cucumeris* which is generally less conspicuous.

Biological control specialist Steve Usher recognises the biocontrol potential of *A. swirskii* and commented, “During crop inspections there may be several *A. swirskii* mites per leaf, so they are easier to find. The fact that several products have been developed around this predator is testament to its pest control capabilities. These include the Swirski Mite shaker bottle, which is used for delivering mites directly to the canopy surface, Swirski Plus sachets which provides a four-week boost, and Swirski Plus LD sachets which deliver a large number of mites, but over a much longer period of time. Such product choice and versatility help us to offer the right product in different circumstances.”

Spider mite attacked on two fronts

Phytoseiulus persimilis was one of the original biological control products to enter the market and remarkably this is still the mainstay of a spider mite control strategy today, although it can now be supported by the predator *N. californicus*. This is available as sachets or in bottles which enable mites to be distributed loose over the crop canopy. Although *N. californicus* works well in glasshouse peppers and cucumbers it is not recommended for tomato crops where it is less efficient due to glandular hairs on the plant surface. Both *P. persimilis* and *N. californicus* can easily negotiate two-spotted spider mite webbing on leaves unlike other predators such as *Amblyseius andersonii*. When combined, the biological attributes of *P. persimilis* and *N. californicus* provide a more robust two-spotted





spider mite control programme than can be achieved by using each product alone. For example in ornamental nursery stock when spring temperatures are less than 18°C (but more than 10°C), *N. californicus* should be used due to its activity at lower temperatures. *N. californicus* is also more capable of searching for spider mites which are distributed sporadically at low pest densities in the early part of the season. Once the temperature rises above 18°C, the environment favours *P. persimilis* and as this is the most efficient spider mite predator it should always be used when conditions allow. *P. persimilis* is more efficient than *N. californicus* at high spider mite densities.

No escape from Aphiscout

For aphid control one of the most useful innovations is the development of Aphiscout, which is a mix of five aphid-attacking parasitic wasps or parasitoids. Each species has its own preferred but not exclusive host range. An Aphiscout tube contains a mix of emerged adult parasitic wasps and unhatched aphid mummies, of which 40% is *Praon volucre*. This parasitoid can attack the potato aphid (*Macrosiphum euphorbiae*), the cotton melon aphid (*Aphis gossypii*),



the glasshouse potato aphid (*Aulacorthum solani*) and the peach potato aphid (*Myzus persicae*). Once an aphid is parasitised, the development of its parasitic larva causes the aphid to die and become mummified. The colour of the mummified aphid relates to the parasitic wasp that is developing inside. This is black for *Aphelinus abdominalis* and *Ephedrus cerasicola*, golden yellow for *Aphidius colemani* and *A. matricariae*, golden-brown for *A. ervi*, and an empty aphid skin perched on top of a whitish silky platform for *Praon volucre*. Introductions of the predatory midge species *Aphidoletes aphidimyza* and the common green lacewing *Chrysoperla carnea* are useful supplementary options for developing aphid hot spots.

Solutions for a new era in crop production

Over the past 50 years a vision of growing crops with fewer pesticides has been comprehensively achieved, but there is much to do to stay ahead of the new challenges that are upon us today. Such challenges include: pesticide residues in food, the on-going revocation of pesticides, the development of pesticide resistance in pest populations and the need to grow crops in a sustainable way. Biological control companies will continue to invest in research and develop new biological solutions for pest control, disease control and crop growth and development. Biological control companies are knowledge-based businesses which are delivering the solutions that will help growers to meet the requirements of the Sustainable Use Directive (2014) which specifies that growers should use non-chemical and natural products where possible. Growers must adapt to change and adopt new solutions as a new era in crop production begins to emerge.

Opposite top: *Amblydromalus limonicus* is used in IPM programmes against thrips and whiteflies. Here the predator is feeding on a whitefly egg.

Opposite bottom: *Phytoseiulus persimilis* is a predatory mite which attacks eggs and active stages of the two-spotted spider mite, *Tetranychus urticae*.

Above: *Eretmocerus eremicus* is a parasitic wasp which is used in glasshouse crops for the control of the whitefly species *Trialeurodes vaporariorum* and *Bemisia tabaci*.

Below left: An *Aphidoletes aphidimyza* midge larva injects a paralysing toxin into a cotton melon aphid.

(All photos: Koppert BV).

History of Koppert

Koppert Biological Systems started as a small family business in the Netherlands in 1967 and over the past 50 years has grown into one of the largest biological control businesses in the world.

The business was pioneered by Jan Koppert, a Dutch cucumber grower who started to suffer from headaches and allergies that were caused by the chemical pesticides he was using. Consequently, he and his son Peter began their search for biological alternatives and soon discovered the predatory mite *Phytoseiulus persimilis*.

Once the predator's pest control potential was realised, it was mass produced and sold as Koppert's first commercial biological product.

Adrian Jackson MCiHort

Adrian is Koppert's consultant for the Midlands. He has many years' experience in commercial pest and disease control methods including the use of biological control agents and conventional pesticides. After gaining his bachelor's degree in Biological Sciences at Wolverhampton, he obtained his master's degree in Microbiology from University of London through his research on the microbial control of plant diseases at HRI Littlehampton. Adrian now provides growers with advice and training on successful implementation of biological pest and disease control programmes in ornamentals, salads and soft fruit.





BRITISH GROWERS ASSOCIATION

GROWER ORGANISATION

Jack Ward explains what the British Growers Association is and how it supports related member organisations, which now includes the Chartered Institute of Horticulture.

The British Growers Association came into existence on 15 December 2011. Prior to becoming British Growers, the organisation was known as the Processed Vegetable Growers Association (PGVA). It was set up in 1969 by a group of predominantly 'Eastern counties' growers who grew and supplied vegetables to the processing industry. Over its lifetime, the PGVA supported this specialist area of UK veg production and provided specialist advice and guidance to growers as well as representation on the issues of the day.

In 2011 the board decided to broaden the base of the organisation and re-name it British Growers. This was in recognition of the changing markets for fresh and processed produce. The proportion of UK production destined for the fresh market now far exceeds the volumes going for processing with the exception of vining peas where the UK is still the largest grower of peas for processing in the EU.

British Growers is a grower-owned and grower-controlled not-for-profit organisation. It supports a range of member organisations including Producer Organisations set up under the EU Fresh Fruit and Veg regime, Crop Associations, Marketing and promotion organisations and now the Chartered Institute of Horticulture.

All the members of British Growers are part of

the UK horticultural sector. The organisation's primary role is to provide administration and accountancy services. The organisations we look after normally only require 'parts of people': part of an administrator or part of an accountant or part of a book-keeper and so by outsourcing the work to British Growers, the organisations get the services they require but only in the amount they need. They also benefit from being part of a larger organisation.

One of the unique features of British Growers is our daily contact with growers across a wide range

of crops and production systems. This enables us to gain a valuable insight about what's happening across the sector and in the current climate that is particularly valuable.

British Growers works very closely with the NFU on representing the sector. The NFU is clearly the main industry lobby organisation but for a sector that includes multiple crops, complex production systems and 'just-in-time' supply chains, having more, rather than less, representation is helpful.



Above: Brassica production stands at 440,000 tonnes and focuses on a wide range of crops including cabbage, cauliflower, broccoli and other hybrids. (Photo: Owen Doyle)
Left: British Peas and Beans is one of the Crop Associations managed by British Growers. (Photo: British Growers Association)

Key issues post-referendum

Needless to say, the outcome of the EU referendum in June 2016 has dramatically increased the stakes for the sector. Shortly after the vote, British Growers organised a meeting for some of the leading players in the sector to agree what the key issues were. Three themes emerged, seasonal labour, the future for producer organisations and the shape of future legislation and its impact on UK producers.

Seasonal labour has dominated the UK horticultural agenda for the past 20 months. British Growers undertook a survey in the early days after the referendum to establish the industry's need for seasonal workers. After an extensive grower survey, we estimated the figure to be between 75,000 and 80,000 seasonal workers needed each year to harvest, grade and pack the UK's fruit and veg production.

This figure has become the benchmark for seasonal harvest labour requirements. While there has been a lot of sympathetic noises and a willingness to understand the issues, the Government was a long time in bringing forward a solution to the rapidly declining numbers of eastern Europeans wanting to come to the UK. The announcement last autumn of a pilot scheme was a major breakthrough but no one believes that an additional 2,500 workers will ameliorate the difficulties which growers have been experiencing both during the 2018 season and in the run up to the 2019 season.

But the future is not without opportunity. In 2017 we carried out a review of domestic production and what proportion of the UK market is satisfied by UK growers. The figures shown here (above) is a snapshot of how the UK stands on its share of the domestic market.

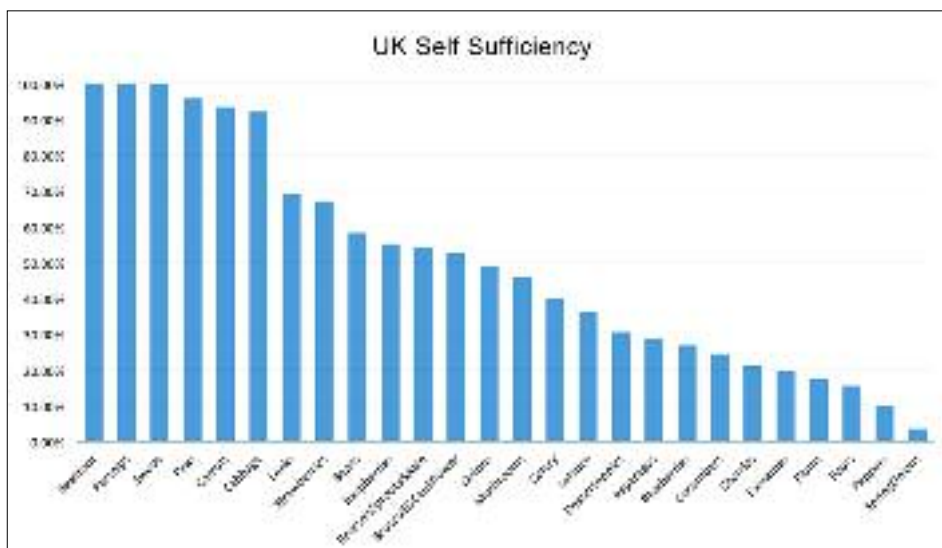
The UK relies heavily on imports particularly for seasonal crops but looking at the graph, there should be opportunities to increase the UK share of the UK market. But the big question is how?

How to increase production?

Since Defra launched its Health and Harmony consultation a year ago, British Growers has been putting the case for greater support for the UK horticultural sector based on the argument that, as a nation, we need to increase our intake of fruit and veg. And if we need to increase consumption, we need to increase production.

The challenge is how?

One of our main activities at British Growers is providing administrative support for Producer Organisations (POs). They haven't always enjoyed the best of reputations particularly in political circles. They have been the source of financial penalties imposed on the UK Government by the EU and POs themselves are often critical of the associated bureaucracy. However, on the basis that rules and red tape are a common criticism of most support schemes involving public funds, POs schemes have much to commend them. For this reason they therefore warrant further consideration as part of a future support structure for the sector. It was therefore helpful to see Defra take on board our case for a new domestic scheme and include provision for a new scheme in the Agriculture Bill. Work will start shortly on designing a new UK-centric scheme.



Funding, skills and training

British Growers is also involved in the discussions around the Defra review of the Agricultural and Horticulture Development Board (AHDB). No one disagrees that a strong pipeline of good quality R&D projects is imperative for the future success of the sector. The area where there is less agreement is how future R&D should be funded with views divided about the pro and cons of a compulsory levy. As an industry we also need to be concerned about maintaining the right level of R&D infrastructure here in the UK. We have seen successive R&D sites closed through lack of funding. Once these organisations are diminished or closed altogether, it is highly unlikely that we will see them, and their expertise recreated. Take for example our crop protection products. Over the past 20 years we have lost around 850 plant protection products. Finding modern alternatives is essential if we are to produce crops and plants to the standards required by today's consumer but this work requires a significant investment and the expertise.

While on the issue of resources, British Growers is also involved in the wider debate about skills and training. There is clearly a desire to put in place an education and training process which provides the right people with the right skills and technical expertise to make the sector truly world class. Again, there is a large amount of history to unpick and learn from. And just like the R&D situation, the underpinning infrastructure needs to be right. Again, there is a sense that some of this has been lost over the past quarter of a century.

Working with CIH

Working with the Chartered Institute of Horticulture is bringing a new dimension to the work of British Growers. Historically, as an organisation we have focused on product rather than people. But with increasing competition for good quality staff, how businesses recruit and manage people is becoming an ever more important ingredient of success. The Government indicated in its response to the Health and Harmony consultation that it "wants to work with industry to encourage more UK workers to enter the profession". Some of the areas that the Government has singled out for further development include increasing skills and

qualifications in the sector, increasing the numbers of apprentices and improving some of the perceptions and understandings associated with working in the sector.

As an organisation we are looking forward to building a close working partnership with the CIH. Day-by-day we are gathering valuable insights into the operation of the Institute together with ideas to make the operational side run more smoothly. We will be attending the Management and Council meetings in the spring and we will be present for the Young Horticulturist of the Year competition in May. We see this partnership as a great opportunity to bring our own area of experience and expertise alongside the wealth of skills, talent and enthusiasm that exists within the CIH.

No one quite knows what the future holds. The uncertainty hanging over the sector as Parliament wrestles with interpreting the outcome of the referendum in a way that suits all parties is significant. A large amount of change is inevitable but with change can come opportunity. The task ahead is to create an environment in which the sector can capitalise on the upsides of change and mitigate the risks from any downsides.

Jack Ward N Sch, FRAgS

Jack is the Chief Executive of the British Growers Association. British Growers supports 22 organisations on behalf of UK Growers. It provides administration and accountancy services to specialist crop associations, marketing and promotion groups and producer organisations as well as representing and promoting UK horticulture. He is also Chief Executive of its subsidiary business MIS which collects and distributes market intelligence to the fresh produce industry.

Prior to joining British Growers, Jack was CEO of City & Guilds NPTC providing vocational qualifications for the land-based industries. He worked closely on the national skills development agenda and worked with many of the country's leading agricultural colleges. From 1982 to 2006, Jack held a number of posts with the NFU including Regional Director for the East Midlands and Head of the NFU's Technical Services Dept. He is a Nuffield Scholar and went on to become Chairman of the Nuffield Farming Scholarships Trust. He was a former director of the Oxford Farming Conference and became a Fellow of the Royal Agricultural Society of England in 2014.





FIFTY YEARS AND COUNTING . . .

NURSERYMAN

John Langman, the Kent nurseryman and entrepreneur, is still actively involved in the multi-million pound business he set up over five decades ago at Palmstead Nurseries. **Clare Hogan** talked to one of horticulture's legendary nurserymen about his early career and how he founded Palmstead Nurseries just over 50 years ago.

The deep litter of straw and peat created by hundreds of chickens was the spur for John Langman's career. Last year he celebrated the 50th anniversary of Palmstead Nurseries, one of the largest producers of nursery stock in the south-east, which he set up in the eponymous village amid the Kent Downs.

"My accountant father was a frustrated farmer and in the mid-1950s kept 400 to 500 chickens. Aged nine I used my pocket money to buy seeds like beetroot and pumpkin," John says. "I'd grow a row of this and a row of that in the litter heap created over the winter to keep the chickens warm and dry. Everything grew so well."

His father, Frederick, had also grown sweetpea seeds for Carter's Tested Seeds Company from 1948 to 1950 in their half-hectare garden in Etchinghill. "During the war seed companies were not allowed to grow flower seeds, so afterwards they advertised for people to bulk up numbers," he explains.

But it was a tuber that really turned his head. "My dad bought a bunch of dahlias for my mother, Gwen. I thought 'they're fantastic' and the next year I bought tubers."

Dahlias may have started him off but money, or the lack of it, governed the route he took. "I chose ornamental horticulture because I could do it

without a lot of capital," he says. "It brings in a bigger income from a relatively small acreage and I didn't need a glasshouse of any size to do it." Now 50 years on, Palmstead Nurseries has a £4-5million turnover, 2ha of glass, 2.8ha of polythene, its 50 staff produce more than a million plants in containers and 200,000 field-grown trees and shrubs a year, its reservoirs hold 54m litres of harvested rainwater and recycled irrigation run-off and it produces its own electricity, sending excess power to the grid.

At 16, having decided that his future lay in horticulture, John attended a summer taster week at Swanley College of Horticulture (now Hadlow



Left: Palmstead, named after the village in Kent, now has 2.8ha of polythene and 2ha of glass.

Above: John Langman and his daughter Kate Rushton. (Photo: Marta Michalak / Palmstead)

College). “We weren’t a horticultural family so they wouldn’t take me without two years’ practical experience. I left school and spent two years at Mounts Nurseries in Canterbury growing perpetual cut-flower carnations and roses under 5.6ha of glass and went to horticulture class at technical college once a week.”

Of the 37 students on his two-year course at Swanley, 17 meet once a year at Wisley. “Ten of us are still in horticulture – at the Royal Botanic Garden Edinburgh, in landscaping design, one has his own nursery in Hampshire growing bedding and houseplants and one started a very successful horticultural recruitment agency. We had kept in touch – particularly the girls. In fact, I married one of them.”

This was his wife Linda, who worked in landscaping and design, was on the same ornamental course as John.

Advice to future horticulturists

What advice would John give to those following in his footsteps? “Don’t be impatient. That was my father’s advice. He had kept books for small businesses and said: ‘Don’t expand too fast, go at a natural pace.’ I’d also say start young, do all the jobs when you’re still strong enough, then you’ll have time to find out what you’re good at. You don’t need to have a degree if you’re prepared to

work hard and learn on the job, as many of our supervisors have.”

The nursery is helping the process through the Palmstead Academy, which offers hands-on training courses covering everything from managing for performance to in-depth assessment of the crop, who buys the plants and the issues that customers face.

“Being able to put your lectures into practice right away is an excellent method of training,” he says, giving the example of his three-month management-training course at Oaklands Horticultural College in St Albans (where one of his fellow students was a 17-year-old Alan Titchmarsh). Only when the business was up and running did he gain the benefit.

John’s training was paid for by Kent County Council, “but I still needed money to live on. I think the most difficult, hardest thing I ever did was in Littlebourne when I took out the old haulms (stems) from watercress beds. You had to put the really heavy haulms on wheelbarrows and push them up out of the enormous beds.”

The college helped him after he graduated in 1966 by writing to a Dutch nurseryman whose son was a former student. “At Boskoop,” he says, “I really learnt how to work hard. In the season we started at 7.30am, had an hour for lunch and half an hour for tea and finished at 9pm. I earned 96 guilders. Of that 60 went on keep and the remainder wasn’t enough to live on. That training cost me money.”

Horticulture is the Netherlands’ most profitable industry and its government actively supports its growers. Could the British Government follow suit? “There’s talk about offering grants for horticultural expansion but these can be taken up by the efficient and the inefficient – it’s not the taxpayer who should be subsidising private companies. Capital allowances should be more generous: we get a 4% capital allowance on our aluminium glasshouse, which means it is discounted over 25 years. More generous allowances would mean more investment. Our politicians have never considered

horticulture an important industry. In Holland it is treated with the greatest respect. Too many politicians have never had any practical experience of running a business.”

Early days

John found his first full-time job in 1967 through an advert in *Gardeners’ Chronicle* that offered “a lot of money for six weeks’ work”. He joined Clifton Nurseries in Little Venice, west London, as a salesman. The pay was good because, even then, “knowledgeable help was difficult to find”.

He worked weekends there until the spring of 1970. Meanwhile, he had started Palmstead Nurseries with the help of the ‘Bank of Mum and Dad’. “I’d been propagating plants in their garden and although I’d saved a bit, Dad bought 1.17ha in Palmstead in September 1968 for £450. My mother, who was a private secretary, helped me to take cuttings and Dad kept the books.” Another 2ha followed in 1976, which he is now donating to the Scouts for camping. “It’s a wood because we haven’t touched it for 25 years, but there are still straight lines of Japanese cherries, acers, *Davidia involucrata*, Italian alder and camellias, exactly where we left them.”

He added more land but he began “getting hassle from the council because we were bringing bigger and bigger lorries up a little lane”.

With perfect timing, a change in UK drinking habits provided the solution. On the outskirts of Wye, a 100ha hop farm was having problems. “Bitter drinkers were moving to lager, so the farmer sold me half his farm in 1988. Bearing in mind the size of the original nursery, my father was very worried for me.

“I took out an Agricultural Mortgage Corporation (AMC) loan with Lloyds Bank. It’s one they can’t call in – if I missed payments they could not foreclose on me. I needed a substantial deposit but the bank’s gamble wasn’t great because the cost of agricultural land is always going up.”

At first there was just the potting shed (which had been used for drying hops), but 14 staff built

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Far left: Early efforts at container production in the 1970s (note the polybags). **Left:** Having outgrown his parents' back garden, John developed his first nursery in 1968. Clearing the 1.7ha of pasture and derelict plum orchard was back-breaking work. **Below left:** Palmstead Plants, the company's retail arm at Wye. **Below:** Palmstead produces more than one million plants in containers and 200,000 field-grown trees and shrubs a year.



beds and the potting machine arrived in the spring of 1989. "To be profitable you have to be productive and efficient – if not, you will always struggle. But quality sells so you don't cut inputs. I had to be profitable to put the money back in."

"We've always done most of our own propagation, and we buy in. We've always done both. There was a lot of talk in the 1960s that nurseries would become specialist but I felt that would stop growth. The market has changed enormously. Selling plants was very seasonal; March sales would be 20 times what you sold in August. Now it's only threefold. It will always be season-led but it is becoming less and less so."

These sales patterns have been possible through one of the great innovations of the industry – containerisation. "Some 50 years ago, garden centres began demanding container-grown plants because, until then, you sold plants only between November and the end of March." He also kept up with progress in the US by reading *American Nurseryman*. "The work done in the late 1950s by the University of California on controlled-release fertiliser, soilless compost, air filled porosity (AFP) and alkalinity, was second to none."

Knowledge and research are key

He notes that Palmstead relies on knowledge and research to stay at the cutting edge. "We have a technical supervisor, Jess Gibbs, who has a BSc in Commercial Horticulture. She carried out promising trials last year on *Daphne* and *Skimmia* and is running trials this year on growing media, fertilisers and plant growth regulators. She's also visiting other businesses to see if any of their methods could be adapted at Palmstead, including IT developments for production."

"Only one person at a time could use our first computer system; on the next one you had to pay for reports, which was not satisfactory. In 2004 we bought the SAP Business One software system which, though expensive, does the accounting,

sales expenditure, warehouse system and stock. It can grow with us."

Palmstead's clients have also changed over the decades. "In the 1990s 40% of our turnover went to other wholesale nurseries – our size meant we could produce big numbers. That grew faster than the landscaping side."

"We moved away from supplying the garden centre chains. I didn't like the way they treated our plants and didn't want to be dictated to about how and what I grew. I've always had a rule of thumb that no customer should be more than 10% of our turnover. Linda says I'm lucky I have my own business – I'd be unemployable otherwise."

The wholesale side of Palmstead's business is split equally between designer and commercial sales. "People have had more disposable income over the past 30 years. The garden is now an outside room but people don't want to do it themselves. They used to have a basic knowledge of plants because they grew their own veg. Now, people have no interest until they move into the suburbs or countryside."

His daughter, Kate Ruston, is helping to develop Simply Go Gardening, the company's premium-quality online retail site. "Kate came here to work with a gang of friends in her school and university holidays," he says. "She has worked in every department, so I'm pleased she is involved in the business."

What are the risks?

What does he believe are the major risks facing the industry? "The global spread of pests and disease is not going to change but the amount of chemical use is a worry. Take Aldrin (the soil insecticide used for vine weevil). It was cheap, long-lasting and worked. Unfortunately, it was so long-lasting it was found in watercourses. That has been the history of all chemicals since the 1950s

"We try to minimise their application. We use

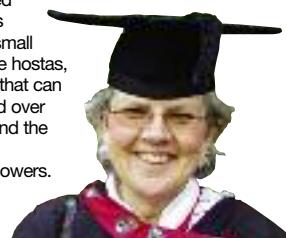
bark topping to control liverwort and biological controls in our controlled environments. We need to look at fighting bugs with bugs and understand pests' lifecycles much more. A simple example is red spider mite. We had it and no chemical worked, particularly inside, so three times a day for a week staff used a fine mist nozzle to spray plants with water to increase the humidity, which red spider mites don't like."

However, he says, if chemicals were to be removed "it must be from everyone so there is a level playing field. We would not be as efficient and productive without them. We propagate many of our plants in-house and have decided to buy-in less. We have the best biosecurity controls we can."

John does not believe that Brexit will be a problem. "Businesses will adapt, there will still be trade, albeit with some duty, and people will base their decisions on the costs involved." And for those who live in hope of a much warmer Britain, he says: "Not at our latitude – and if the Gulf Stream changes, global warming could get very cold. No one knows. I just hope that I have left Palmstead in a position to do another 50 years."

Clare Hogan MCIHort

Clare was awarded a First for her BSc (Hons) Commercial Horticulture by the University of Greenwich. She is editor of the *Plant Heritage Journal* (the National Plant Collections charity) and chairman of the Plant Heritage Surrey Group. In her spare time she oversees the gardens at a block of flats in Wapping, belongs to the Worshipful Company of Gardeners and goes to the gym. Her unstructured suburban garden has interesting plants, a small collection of miniature hostas, mare's tail and birds that can occasionally be heard over the noise of planes and the neighbours' mowers, strimmers and leaf blowers.





RE-INVIGORATING A LOST LANDSCAPE

LAKE DISTRICT PARADISE

John Ruskin, Victorian artist, art critic and social reformer – thought to be an early thinker concerning climate change – has his bi-centenary this year. **David Ingram** tells the story of Brantwood, the gardens Ruskin created in the Lakes. He highlights the role of horticulturist, the late Sally Beamish, and the re-invigorating of what was in effect a lost landscape so that it could be sustained respecting the spirit of its creation.

Brantwood is the gateway to a secret world. This unassuming house on the steeply sloping western shore of Coniston Water, in the heart of the English Lake District, is surrounded by 101ha of ancient woodland, the setting for a series of jewel-like gardens, linked by a labyrinth of secret pathways and illuminated by breathtaking vistas. The creation of this paradise – gardens in a landscape rather than a landscape garden – was the work of three exceptional people: John Ruskin, followed by Joan Severn and much later Sally Beamish. It was Sally who, from 1988 onwards, gradually revealed and re-imagined the gardens of her predecessors and made them accessible to us today.

Ruskin's gardens

John Ruskin first purchased the house and its surroundings in 1871, for £1,500 – sight unseen – and made it his home until his death in 1900. In a letter he described his new acquisition as “five acres of rock and moor; a streamlet, and I think



Left: Harbour Walk with Joan Severn's azalea bushes in full flower, having been 'pruned back to life' by Sally Beamish and her staff. (Photo: D S Ingram)

Right: Brantwood: the house and surrounding woodland from the jetty. (Photo: Nina Claridge)

Below: The Brantwood garden staff on a summer day in 2009: from left to right, Ruth Charles (now Head Gardener), Sally Beamish (then Head Gardener and Estate Manager), Dave Charles (Gardener) and Peter Wright (Master of Practical Trades). (Photo: Val Corbett)



... the finest view I know in Cumberland or Lancashire"; a modest description of what was to become a consuming passion. It provided a private world where he could relax after arduous travels, especially to the Alps and Italy, or long hours of writing and teaching. It was also a place where he could work out, literally on the ground, his revolutionary intellectual, social and practical ideas. However, when his mental health began to fail, as researcher Caroline Ikin (Manchester Metropolitan University) has suggested, it became a thorn in his side, a landscape of memory reminding him of his parents, the unsuccessful pursuit of love and failed projects.

I shall describe four of Ruskin's gardens, re-imagined by Sally Beamish, in the order in which I 'discovered' them.

Professor's Garden, so named by the family as an affectionate reference to his role as an Oxford Professor of Fine Art, was the first garden Ruskin created. It probably already existed as the vegetable patch of the previous owner of

Brantwood, the socialist writer, wood engraver and botanist W J Linton, but Ruskin made it a vegetable garden to feed both the body and the mind of the gardener.

Approached by a steep path and rough-hewn steps, it is fenced about with riven oak. The planting is a higgledy-piggledy mix of garden vegetables, herbs and colourful cottage garden shrubs and flowers for an artist, gardener or botanist to study as Ruskin did, "seeing through drawing"; or for a visitor to enjoy. There is even a rose-covered 'penthouse' for bees, the original straw skeps for honeybees now replaced with hollow-stem homes for bumblebees. And, as in Ruskin's day, there is still an area for experiments, such as a recent study of companion planting for organic insect control. The garden remains a place of thought-provoking peace, as it was for Ruskin.

Painter's Glade could not be more different. It is approached along a tree-lined shady path via a riven oak bridge over a tumbling beck, lined in spring with primulas and the croziers of

woodland ferns. On arrival one finds a shaded glade, surrounded by trees and ferns and carpeted with soft mosses and leafy liverworts, a tranquil space for contemplating or painting the 'picturesque' vista of Coniston's Old Man and surrounding fells. Ruskin's gardens usually had additional purposes, thus Painter's Glade doubled as a tennis lawn for Joan Severn's growing family.

Zig-zaggy, a garden of ascent leading ultimately to 'paradise', now, prosaically, has its lower gate in the modern car park. Its hard landscaping was restored from scattered ruins by Sally Beamish, guided by Ruskin's rough sketches in a letter to Joan Severn, and advised by Howard Hull, the inspired Director of Brantwood, while financial support came from the Heritage Lottery Fund. Its series of low-walled terraces, ascended by a zig-zag path up the hillside, are a reminder of Ruskin's interest in Italian terraced agriculture and of his attempt to recreate Dante's 'purgatorial mount' in Lakeland. This latter aim was re-imagined by Sally Beamish in a series of

KEY FIGURES

John Ruskin

John Ruskin (1819–1900) was one of the leading cultural figures of the Victorian age.

Although a talented water-colourist, it was as an art critic that he achieved fame. The first volume of his five-volume work, *Modern Painters* (1843–60), was a defence of JMW Turner and had as its central theme the assertion that the principal duty of the artist is ‘truth to nature’, an ideal developed further in the later volumes. He strongly influenced the Pre-Raphaelites, whom he championed during the 1850s, and much of his subsequent writing and lecturing, including that as Oxford’s first Slade Professor of Fine Art, had a powerful influence on the development of the Arts and Crafts movement. His writing also included studies of architecture, notably *The Stones of Venice* (1851–53), geology, botany and ornithology. Later he turned his attention to social and economic justice, especially through publication of *Unto This Last* (1860, 1862) and *Fors Clavigera – letters to the workmen and labourers of Great Britain* (1871–84). A posthumous legacy of his innovative thinking is said to have been the founding of the National Health Service, and many regard him as a prophet of climate change.



Joan Severn

Joan Severn, née Agnew (1846–1924), Ruskin’s cousin, first moved from Galloway to Denmark Hill in 1864, as a companion for Ruskin’s mother. In 1870, however, she married Arthur Severn, a young painter, and the couple moved into Ruskin’s former home in nearby Herne Hill. After Ruskin’s move to Brantwood in 1872 the Severns and their growing family became frequent visitors, and Brantwood soon became their second home. Eventually they moved there almost permanently. From 1889 until his death, she nursed Ruskin through his final illness, undoubtedly saving him from committal to an asylum.



Sally Beamish

Sally died in June 2018, at the tragically early age of 54. Having trained at Askham Bryan College, she first moved to Brantwood as a volunteer, but in 1988 joined the staff as Head Gardener and later, Estate Manager. Ruth Charles, her successor, said that she feels honoured to have become the caretaker of Sally’s life work.



unconventional plantings and features representing the seven deadly sins: for example, a magnificent espalier ‘Black Worcester’ pear for gluttony and wool-beds, the fleeces of local Herdwick sheep, for lust. From Zig-zaggy one can ascend, via many windings, turnings and surprises of woodland paths and uneven steps, to the gate in a dry-stone wall that leads to Ruskin’s last garden.

The Moorland Garden, started in 1881 as Ruskin’s final illness approached, was situated on a hilltop once grazed by sheep. It was intended to combine the beauty and spiritual heaven of Dante’s ‘Paradise Terraces’ with an ‘experiment’ in upland terraced agriculture. Sadly, the first attempts to grow crops failed. With perseverance, hardy wheats, cherries and bilberries might eventually have combined beauty and food production on the high tops of the Lake District, but it was not to be. Ruskin’s long descent into mental illness, inactivity and silence brought it all to an end. With characteristic ‘good manners’, Sally returned it to the unfinished state in which Ruskin left it. The wheat and cherries are long gone, but the terraces, reservoirs for irrigation and bilberries are still there, sad reminders of Ruskin’s thwarted dreams.

Joan Severn’s gardens

Joan Severn must have been longing for years to leave behind Ruskin’s gardens of the mind and plant gardens of her own. She did not begin, however, until his gardening days were over, and she had the good grace not to replant his existing gardens, but to begin work further south.

The new gardens were naturalistic – perhaps in part inspired by the celebrated ‘wild’ gardener William Robinson, an admirer of Ruskin – and also stylish, full of scents and dazzling colours. They were ‘modern’ gardens for Joan’s expanding family and, as she became the ‘chatelaine’ of

Brantwood, fitting settings for entertaining visitors.

High Walk, for example, started in the late 1880s, comprised a long, narrow lawn running parallel with the lake shore and surrounded by azaleas and other flowering shrubs. This provided an accessible and civilised space for visitors to stroll, converse, and admire the incomparable view of the lake and fells.

Cornfield Bank and Maple Walk followed. A path makes a long and gently curving descent from High Walk towards the lakeside road, surrounded by azaleas and flowering shrubs, originally planted in the Victorian manner but augmented by Sally with a mix of old and modern hardy shrubs and herbaceous perennials. To the left, at the base of the steep bank and visible throughout the descent, is a group of now enormous scarlet flowered *Rhododendron* ‘Broughtonii’ trees, originally planted by Joan Severn, who may have obtained them from Muncaster Castle near Ravensglass. Finally, towards the end of the path one comes upon four, now mature *Acer palmatum* trees planted by Joan Severn, their deep red foliage and arching branches providing a triumphant flourish at the end of the southern gardens. These wonderful trees are now nearing the end of their life and new plantings that will eventually replace them have already been made.

Harbour Walk, Joan Severn’s final garden, was completed in 1899. The harbour on the lake shore, once home to Ruskin’s skiff, ‘Jumping Jenny’, was one of his many ‘water engineering’ projects – others included an ice house, a great underground cistern to supply the house with water and a reflecting pond, perhaps doubling as a place to study aquatic life. Joan’s garden is deceptively simple, taking the form of a long, curving path leading to the harbour, with borders



Left: A magnificent specimen of 'Keswick Codlin' (1793), a local, early cooking apple. (Photo: Dave & Ruth Charles)

Below: Front cover of David's book, *The Gardens at Brantwood – Evolution of John Ruskin's Lakeland Paradise*, showing the view from the Professor's Garden. (Photo: Nina Claridge)

Right: High Walk, looking towards the lake on a spring day. (Photo: D S Ingram)

Below right: The riven oak bridge leading from the Professor's Garden over the beck into Painter's Glade. Beside it in full flower is *Ranunculus acronitifolius*. (Photo: D S Ingram)

Far left, top to bottom: John Ruskin, sitting by a dry-stone wall a year after he moved to Brantwood. (Photo: F M Sutcliffe / Ruskin Foundation (Ruskin Library), Lancaster University)

Joan Severn sitting in front of the house at Brantwood. (Photo: Ruskin Foundation (Ruskin Library), Lancaster University)

Sally Beamish during her early years at Brantwood. (Photo: Harry Beamish)



on either side. The original plantings included lilacs and salmon-pink and gold cultivars of *Azalea mollis*, and clear yellow *Rhododendron luteum*, all sweet-smelling, while the path was edged with Ruskin's favourite spring flower, the heavenly scented old pheasant's eye, *Narcissus poeticus* var. *recurvus*. The lilacs have gone, but the azaleas and rhododendrons are still there, pruned back to health by Sally and her team, and supplemented with unusual perennials to prolong the garden's colours into the autumn. Today, as in Joan Severn's time, the Harbour Walk provides a breathtakingly colourful and perfumed point of arrival and departure for water-borne visitors.

Sally Beamish's re-imaginings and gardens

After Joan Severn's death in 1924, despite the work of volunteers, nature gradually reclaimed Brantwood until 1988, when Sally Beamish arrived. She came with the vision of recreating the former glory of the gardens and landscape for the increasing number of visitors who find their way from Coniston village on foot, by car and, most romantically, aboard the steam yacht Gondola. Supported and fed with creative ideas by Howard Hull, and a devoted and enthusiastic team of staff and volunteers, Sally set about her daunting task.

Woodlands. First she began what was to become her most enduring achievement, the re-invigoration and sustainable management of Brantwood's ancient woodland. For centuries the oaks, hazels and other trees had been coppiced to provide charcoal for smelting iron, and as a source of wood and bark for woodland crafts. Ruskin discontinued this practice for he had a romantic vision of creating a landscape of tall, sinuous stems resembling the backdrop to a painting by the Renaissance artist Sandro Botticelli. Romantic it may have been, but it was labour intensive to

maintain, and as the saplings grew, obscuring the sunlight, the ground flora slowly faded away. Sally's reinstatement of coppicing and other traditional practices has resulted in the woodlands becoming an immense wildlife garden in their own right, accessible to visitors for the first time in over a century. The numbers of wild flowers, ferns, mosses and liverworts have gradually increased, and with it the immense diversity of mammals, birds, reptiles, amphibians, butterflies and other arthropods that enrich the landscape today. And as a bonus, some of the woodland crafts have again become possible.

New gardens

New gardens created by Sally Beamish include, close to the Harbour Walk, **Hortus Inclusus**, a garden of herbs and medicinal plants, and nearby an Orchard, planted with old apple cultivars, including local 'Keswick Codlin', dating from 1793. She also planted the **Drive** to welcome visitors to the house, and higher up the hillside a woodland **Fern Garden**, stocked with 200 native British ferns. This was inaugurated in 1991 to commemorate the hundredth anniversary of the visit to Brantwood of the British Pteridological Society, and as homage to W J Linton, author of *Ferns of the Lake Country* (1865).

Sally's final achievement was the re-creation of the **Wildflower Meadow** on the lake shore. This project, suggested by Howard Hull in 1996, is still evolving. Firstly, artificial fertiliser application was discontinued, and grazing and mowing carefully managed to encourage the wealth of delicate meadow grasses and wildflowers that now delight both pollinators and the eyes of visitors. The meadow also provided Sally, in her last few years, with a place to study, with a characteristically 'Ruskinian' open mind, the mysteries of Biodynamic Gardening.

The meadow, like the rest of the landscape at Brantwood, continues to evolve as a memorial to Sally's work. And it is fitting that nearby is a reminder of her two predecessors, whom she admired so much, in the form of the **Wild Daffodil Meadow**, planted by Joan Severn towards the end of John Ruskin's life to remind him of former travels to the Alps.

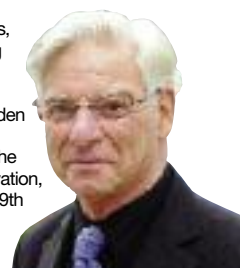
More information

This article is based on David's illustrated book *The Gardens at Brantwood – Evolution of John Ruskin's Lakeland paradise*, Pallas Athene & The Ruskin Foundation (2014). Copies may be purchased by readers of *The Horticulturist* from The Shop, Brantwood, Coniston, Cumbria LA21 8AD, at the Brantwood visitor's discounted price of £5.95 + £3.00 p&p (total £8.95).

Professor David Ingram OBE VMH FCIHort FRSE

David is currently Honorary Professor in the Universities of Edinburgh and Lancaster; Honorary Fellow, Royal Botanic Garden Edinburgh, St Catharine's College, Cambridge and Myerscough College, Preston. He began his career as a botanist and plant pathologist, with a BSc & PhD from the University of Hull and teaching and research in the Universities of Glasgow and Cambridge.

In 1990, however, he became Regius Keeper (Director) of the Royal Botanic Garden Edinburgh, and then was, from 2000 until 2006, Master of St Catharine's College, Cambridge. Other roles have included: President of the British Society for Plant Pathology and of the 1998 International Congress of Plant Pathology; RHS Professor of Horticulture; a Main Board member of Scottish Natural Heritage; Deputy Chair of the Joint Nature Conservation Committee and Chair of the Darwin Initiative for the Survival of Species. He has been on the editorial boards of several journals and has published numerous papers, articles and books covering topics as diverse as plant pathology, botany for gardeners, horticulture, garden history, conservation of biodiversity, food security, the sociology of scientific innovation, and the synergy between 19th century European art and horticulture/botany.





HORTICULTURAL EXPERIENCE LEADS TO A CHANGE OF FOCUS

STUDENT FELLOWSHIP

Eva Steinberg got to grips with various aspects of UK horticulture as a Royal Horticultural Society/Garden Club of America Interchange Fellow. She summarises her experiences and explains how the year has changed her approach to her particular interest in seeds, plants and people.

Before I arrived in the UK to begin my whirlwind tour of British gardens, I admittedly knew very little about the world of horticulture. Prior to this year, most of my growing experience had been on small-scale farms, and though I've always loved plants, I was apprehensive to branch out into the great unknown. Apart from a brief summer internship at Smith College Botanic Garden in Massachusetts, I was unfamiliar with most aspects of horticultural plant growing. In many ways I expected this year to be a sort of continuation of my undergraduate thesis research, exploring the connections between people, seeds, and plants.

My thesis, an ethnography of cultural preservation in Southeastern US agriculture, sought to explore the influence of history and land ownership on farming methods, both large- and small-scale. Additionally, I focused on the role of heirloom seed saving and sharing – the practise of collecting seeds of plants that have been passed down in a family. I contended that due to a seed's biological and cultural significance, mobility, and adaptability, it offers an alternative mode of preservation for those without land or otherwise on the margins of conventional agriculture. After graduating, I worked for Seed Savers Exchange (a small heirloom seed organisation in Iowa dedicated to saving American heirloom seeds and their

histories) with the goal of fostering biodiversity and awareness of different growing traditions.

While I would broadly still classify these as my interests, the past year has vastly changed my approach to this topic. Whereas I initially strove only to collect – seeds, histories, knowledge, plants – this past year has taught me that it isn't enough to only accumulate.

Instead, the goal of gardens and botanical organisations and institutions should be to disperse the botanical heritage that has been amassed over the centuries, not just among other horticulturists or scientists, but in a manner accessible to all. Horticulture is inherently tied to our environment and our responsibility for it – therefore shouldn't the awareness and intimacy of our flora be shared with all of earth's inhabitants?

Interchange Fellowship

The Royal Horticultural Society/Garden Club of America (RHS/GCA) Interchange Fellowship was conceived after World War II as a programme to foster the exchange of horticulturists and their knowledge between the United States and Great Britain. This was actualised in 1948, when the first Fellows made the journey across the Atlantic to work at and learn at key gardens and horticultural institutions in each country. In the 71 years since

then, the programme has flourished, with the American Fellow moving to different gardens throughout the UK and the British Fellow either spending one year at Longwood Gardens in Pennsylvania or enrolling in the first year of a masters programme in a horticulture-related field. So, like dozens before me, I set off across the pond for ten months to work at seven gardens throughout the UK, not quite sure what to expect but ready to absorb as much knowledge as possible.

RHS Garden Wisley

My first placement was at the RHS's flagship garden, Wisley, in Surrey. There I worked with the Members' Seed Scheme Team, collecting and cleaning seed available for RHS members to buy. The goal of the seed scheme is to encourage and inspire members to grow the plants they see around the garden. On a larger scale, the seed scheme is an effort to promote gardening and encourage a wider interest in horticulture, hopefully playing its part in changing the false perception that horticulture is a pastime for older generations and pays low wages to gardeners. I became aware of this trend through observing several RHS Plant Committee meetings.

From conversations with co-workers and committee members, I gleaned that this decrease



Clockwise from left:

Cutting back banana foliage in the Temperate Glasshouse at RBG Edinburgh; Eva developed a soft spot for prickly plants while working with them at RBG Edinburgh in the Arid Lands Glasshouses; the aptly named Wheelbarrow of the Seed Department at RHS Wisley; maintenance work at Tresco Abbey on the Isle of Scilly; the fronds of a tree fern at Chelsea Physic Garden London; and testing seed for germination rates at the Millennium Seed Bank. (All photos: Eva Steinberg)



is due in part to the perception of horticulture as a pastime for older generations and the low wages that gardeners earn. Through working with the seed scheme, my interests and mindset started to shift towards considering accessibility in gardening; more specifically, how the history of gardens as a place maintained by the working class for the enjoyment of the upper class has pervaded modern perceptions of horticulture.

Wakehurst Place

In late October, I moved from Wisley to Wakehurst Place to work with Kew's Millennium Seed Bank Partnership (MSB). Though I was still focusing on seeds, the seeds in the bank aren't intended for individual use by members of public. Instead, these seeds are meant to function as the reserve stock of the world's floral gene pool, with the goal to collect seeds from 25% of the world's plant species by 2020. As amazing as it was to be surrounded by so much biodiversity and seeds from places and plants that I had never heard of, I realised that I really missed the human connection to these plants. My connection to growing and preservation is deeply rooted in the cultural significance of plants, and I felt that in the effort to save as many seeds as possible these stories weren't emphasised.

Eden Project

Next I headed southwest to Cornwall to work at the Eden Project. As is now well-known, the Eden Project, based in what was once a chalk mine, consists of two biomes – one tropical and one

temperate – and the surrounding landscapes. Its goal is to connect people to their environment through telling stories with the plants throughout the garden, which resonated with my interests in human/plant relationships and promoting accessibility. My role was to help with the interpretation teams, primarily writing signage for the North American Prairie section. Additionally, I worked with the narrators, who wander throughout the biomes engaging the public in conversations about the plants. Both of these jobs gave me a greater appreciation for the work that goes into making a garden understandable and interesting to the visitors. By emphasising plants that we encounter in our daily lives, I think that the Eden Project is taking a step in the right direction towards increasing accessibility to horticulture – raising awareness of the significance of plants in our world and lives.

Cambridge

Once I finished my stint at the Eden Project I spent two weeks working at Tresco Abbey Gardens on the Isles of Scilly before heading east for my placement at Cambridge University Botanic Gardens. There I worked with the curatorial team evaluating their seed-banking programme, with the hope that my results would be able to inform the revitalisation of their seed collection. This mostly consisted of investigating how it could be of greater use to the horticulturists and different departments within the CUBG, but also potential ways for the bank to play a larger role in local flora conservation and

encourage community involvement.

Working on this project allowed me to research more of the history of botanical collections and the relationship between collecting, plant hunting, and the ways gardens have functioned and developed over time. As I learned more about the history of co-opting plants and germplasm from non-Westernised parts of the world and the role of botany and horticulture in colonisation and imperialism, I was struck by how, as plant stewards, we should work to promote accessibility of our collections to the people of countries from which these plants originate. I found myself even more convinced of the necessity for gardens to do more than acquire collections or act as repositories of knowledge, as well as the necessity to share these with the public.

Throughout my project I aimed to be aware of the role that seed saving can play in engaging the community, whether with local plant or conservation interest groups or by establishing connections with Cambridge University's sustainability and plant science outreach. Cambridge, like many other institutions and gardens, has a wealth of resources, botanical and otherwise. However, many people aren't aware of the knowledge and traditions that are often less than a mile from their homes, nor do they know how to tap into these resources and learn more about plants or growing.

RBG Edinburgh

Following my six weeks in Cambridge, I went north for my penultimate placement at Royal Botanic Garden, Edinburgh (RBGE). There I spent the



majority of my time working in the Arid Lands Glasshouse with some brief stints with the education and edibles teams. From a horticultural perspective, it was absolutely incredible to work with plants that were completely new to me – I definitely developed a soft spot for plants with spikes!

Towards the end of my time in Scotland I went on a tour of the Edible Gardening Project, which was overflowing with a wide array of fruits and vegetables. The team grows food for the RBGE's cafes and works with local schools to teach students about growing their own vegetables. It was through working with these students that the pieces that I've picked up from all of my other placements clicked together. By providing a space for people to participate in growing, the gardeners at RBGE were showing visitors that gardening is something that can be done successfully at any age, with tangible (and edible) results.

While I was being shown all of this, the gardener giving me the tour mentioned that in the past 15 years he had noticed a shift to vegetable growing as an entry point into horticulture. This resonated with me, and I think demonstrates the potential of vegetable growing as the way to initiate people's interest/involvement in horticulture. Gardening isn't pretentious or only for select members of society – it can be as simple as growing a potato. At RBGE I was able to see firsthand people's interest in connecting to the land and getting to know their food, and the role gardens can play in inspiring visitors to try gardening at home.

Chelsea Physic Garden

My last placement was at Chelsea Physic Garden (CPG) in London and it was such a good place to end my ten months of placements. Founded in 1673, CPG is London's oldest botanic garden, originally established for use by apothecaries. Now, the garden is filled to the brim with useful plants, whether for medicine, food, perfume, fibre, oils, or more. To me, this represents the intersection of botanical tradition and what I see as the future of horticulture – a place that celebrates the historical roles of plants and simultaneously encourages people to learn more about plants that play significant roles in our everyday lives.

While working there, more visitors than I could count told me how amazed they were that plants such as tree ferns could successfully grow in the UK, and how excited they were to try growing these plants at home. I consider this to be evidence that a successful way to increase horticultural interest is to engage the public through 'reintroducing' them to plants that they are already familiar with and emphasising the history, traditions, and modern day relevance of each species.

When I started my travels in September 2017, I was expecting to find a similar relationship between people, seeds, and plants to that which I had encountered working with heirloom seed preservation back in the US. However, after 10 months in the UK, I can emphatically say that I've found different, yet equally fascinating, diverse, and complex ways that people interact with the plants around them. Whereas previously I had concentrated on the specific plants (preserving one family's tomato or bean, for example), my focus had shifted to the broader cultural and practical knowledge that has been passed down from one generation of gardeners to the next.

In fact, many of the horticulturists that I met mentioned that they were first introduced to growing by visiting their grandparents' gardens. Through my travels, I've hypothesised that this difference is a result of the United States' tokenisation of anything old, from houses to historical documents to seeds. This fascination with preserving each individual heirloom and its story has created a tendency to focus on maintaining individual plants, whereas in the UK, perhaps due to the age of the country and prevalence of older buildings and institutions, the emphasis is to maintain the larger organisation and practices.

Though different, I appreciate the importance of both of these approaches; when heirlooms are rare, we tend to gravitate towards them, and when we are immersed in antiquities, we look for the organisational structures to make sense of our surroundings. Both of these approaches are reliant on human interaction and engagement, for example, preserving individual seed lineages, working at botanical and private gardens (historic and new), visiting these gardens, or growing at

home. From learning more about these skills and traditions I began to approach each placement with the intention of investigating how gardens work to engage the public in horticulture and botany, whether through signage, performance, or educating and having workshops.

Within that context, I observed that many people approach plants and therefore gardens from a point of interest in sustainability, both in terms of food and lifestyle. They are interested in finding ways of reconnecting with the environment, and growing their own food offers both time spent outdoors and a tangible, not to mention edible, product. I think that this represents a larger trend in a desire to go back to our roots. In an industrialised and mechanised society moving farther and farther away from engaging with nature and prioritising efficiency and instant gratification above all, there is something immensely satisfying about sinking our hands into the soil and taking time to grow.

People want to connect to plants; it is well within the remit of botanical gardens and other horticultural organisations to offer an entry point for those interested in connecting to the earth but unsure where to begin. Each garden contains the tools, knowledge, and capacity to act as a catalyst; sparking people's interest by portraying plants in a way that encourages and inspires visitors to continue growing and knowing their botanical history, culture, and environment.

Eva Steinberg

Eva is the 21017 RHS/GCA Interchange Fellow, originally from Atlanta, Georgia. Prior to her programme, she studied anthropology, biology, and environmental studies at Wesleyan University in Middletown, Connecticut. There, her honours thesis examined cultural preservation in southern US agriculture and the role and potential of heirloom seed saving in these endeavours. She is particularly interested in the relationships between people and plants, as well as the role seeds have as embodiments of both cultural and biological heritage. Eva is now back in the US working as an intern at the Smithsonian Gardens in Washington, DC.



HORTICULTURAL RESEARCH

FRUIT CROPS

A careful choice of compatible pollinizers significantly improves the size of fruits in red raspberry (*Rubus idaeus* L.). Żurawicz E, Studnicki M, Kubik J & Pruski K, 2018. *Scientia Horticulturae*, 235: 253 and **Pollen tube growth and fruit set in apple.** Jahed K R & Hirst P M, 2017. *HortScience*, 52: 1054.

Both of these studies show that the pollinizer (plant that provides compatible pollen) can have a great influence on subsequent fruit production. The former found that, though raspberries are self-fertile, cross pollination gave larger berries with more drupelets. Increases in cv. Glen Ample, for example, ranged from 165–211% for berry weight, and 208–298% for drupelet number, depending on the pollinizer. However, the optimal positioning of suitable pollinizers within commercial raspberry plots needs determining. The latter study on apple showed that choice of pollinizer greatly influenced pollen germination on the stigmatic surface, pollen tube growth and subsequent fruit set. This has clear implications for pollinizer selection.

Defense response against postharvest pathogens in hot water treated apples. Di Francesco A, Mari M & Roberti R, 2018. *Scientia Horticulturae*, 227: 181.

Hot water treatment (HWT) (45°C for 10 min) reduced the incidence of rots in apple after subsequent inoculation with *Botrytis cinerea*, *Colletotrichum acutatum* and *Neofabraea vagabunda*. HWT stimulated a defence response in apple which was shown to reduce fungal pathogenesis enzyme activities, leading to a marked inhibition of pathogen spore germination.

Growing legumes in orchard alleys as an internal nitrogen source. Granatstein D, Davenport J R & Kirby E, 2017. *HortScience*, 52: 1283.

This US-based research demonstrated that replacing grass between rows of mature apple trees with direct-seeded leguminous species could provide a portion of the orchard's requirements for N. Mowings were blown on to the tree rows where they were allowed to mineralise. Alfalfa, mowed four times in a season, for example, added around 43kg total N/ha.

Influence of controlled nutrient feeding during floral initiation and berry development on shoot growth, flowering and berry yield and quality in black currant (*Ribes nigrum* L.). Sønsteby A, Roos U M & Heide O M, 2017. *Scientia Horticulturae*, 225: 638.

Fertilizing black currants in early autumn, immediately after berry harvest, delayed the cessation of shoot growth and increased flower formation and subsequent berry yield, without adversely affecting berry quality. Yields and berry size were also increased in two of four cvs by fertilizing during berry development. However, this practice reduced dry matter, soluble solids and health-related compounds in all cvs.

Pre-harvest methyl jasmonate treatments delayed ripening and improved quality of sweet cherry fruits.

Saracoglu O, Ozturk B, Yildiz K & Kucuker E, 2017. *Scientia Horticulturae*, 226: 19.

Extending the harvest period in cherry production allows better

use of labour and this was achieved in two of three cvs by applying sprays of methyl jasmonate (MeJA), a natural PGR, three weeks before the anticipated harvest date. MeJA increased flesh firmness, a key quality parameter, such that levels in fruit from treated trees were as high when harvest was delayed by one week as in cherries from untreated trees at normal harvest. MeJA also retarded fruit colour development, but had no detrimental effects on fruit mass and size.

Development and application of rice starch based edible coating to improve the postharvest storage potential and quality of plum fruit (*Prunus salicina*). Thakur R, Pristijono P, Golding J B, Stathopoulos C E, Scarlett C J, Bowyer M, Singh S P & Vuong Q V, 2018. *Scientia Horticulturae*, 237: 59 and

Postharvest quality response of strawberries with aloe vera coating during refrigerated storage. Nasrin T A A, Rahman M A, Hossain M A, Islam M N & Arfin M S, 2017. *The Journal of Horticultural Science and Biotechnology*, 92: 598.

The use of edible films and coatings is emerging as an effective means of enhancing the post-harvest longevity of fruit. The first of these two studies trialled the use of a coating comprising rice starch, a gelling agent, carrageenan, and sucrose fatty acid esters. This effectively reduced weight loss, respiration rate and ethylene production in plums stored for three weeks at room temperature, and markedly enhanced shelf life. The second study similarly demonstrated the effectiveness of an aloe vera gel coating for cool-stored strawberries. This coating reduced weight loss and respiration rate, and preserved post-harvest quality attributes such as fruit firmness, ascorbic acid content and colour. It also markedly delayed the onset of microbial rots.

The influence of protective netting on tree physiology and fruit quality of apple: A review. Mupambi G, Anthony B M, Layne D R, Musacchi S, Serra S, Schmidt T & Kalcsits L A, 2018. *Scientia Horticulturae*, 236: 60.

The use of protective netting for apple production is increasing in many parts of the world. This review highlights potential advantages and drawbacks. Netting is primarily used to protect fruit against sunburn, hail, wind and pest damage, but will affect the quantity, spectral quality and distribution of transmitted light with consequential effects on growth and yield. Climatic extremes can be buffered, resulting in prolonged photosynthetic activity and more efficient water use.

Thermal imaging to detect spatial and temporal variation in the water status of grapevine (*Vitis vinifera* L.). Granta O M, Ochagaviac H, Balujac J, Diagoc M P & Tardaguilac J, 2016. *The Journal of Horticultural Science and Biotechnology*, 91: 43 (<https://doi-org.pugwash.lib.warwick.ac.uk/10.1080/14620316.2015.1110991>) (open access)

This paper won the Journal's 2017 prize for having the greatest impact of any published in the previous year. The research demonstrated the feasibility of utilising canopy temperature to determine and counter variation in water status in a grapevine crop growing in the field. Reference temperatures from artificial wet and dry leaves in the canopy allowed separation of the effects on the crop of changing weather and changing water status. The methodology clearly has relevance for other field-grown fruit crops.

Some recent horticultural publications have been briefly summarised by **Dr Allen Langton FCIHort**, an Associate Fellow of the Warwick Crop Centre, School of Life Sciences, University of Warwick. It is planned that all of the major horticultural commodity areas will be covered in this way over the course of the coming year. Of necessity, the selection represents a personal choice.

INSTITUTE NEWS



YHoY 2019 Grand Final at RGB Kew

The heats of the CIH Young Horticulturist of the Year (YHoY) competition have all been completed and the regional finals took place throughout March. The Final of this exciting annual competition takes place at the Royal Botanic Gardens, Kew (RGB Kew) on 11 May 2019. The competition will be held in the Jodrell Lecture Theatre, followed by lunch in the School of Horticulture.

Richard Barley, Kew's Director of Horticulture, Learning & Operations, says, "We are delighted to be hosting the 2019 Young Horticulturist of the Year awards. Kew has a legacy of supporting and encouraging young people in careers in the horticultural field through our Kew Diploma, Apprenticeships and Kew Specialist Certificate courses, and I am looking forward to meeting this year's contestants and wishing them the

best of luck!"

Richard is the Quizmaster for the Final and following the identification rounds the eight finalists will meet him. Following a welcome by Susan Nicholas, Chartered Institute of Horticulture Vice-President and Young Horticulturist of the Year Competition Organiser, and an introduction to RGB Kew, the quickfire quiz session will commence. By 1pm the identity of the Young Horticulturist of the Year will be known!

After lunch competitors, family and friends will be able to visit some of the iconic buildings and enjoy the plants at RGB Kew.

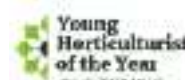
The main sponsors of the competition are the Percy Thrower Trust, Shropshire Horticultural Society and Bord Bia. CIH wishes to thank them and all the sponsors as well as the venues where

the heats and regional finals have taken place. These are: Ireland (National Botanic Gardens, Glasnevin); Scotland (Pollok House, Glasgow); Northern (Thorpe Perrow Arboretum); North West and North Wales (Myerscough College); West Midlands and South Wales (Warwickshire College, Pershore); Eastern (Writtle University College); South East (Merristwood College) and South West (Reed Hall, Exeter University).

Our headline sponsor the Shropshire Horticultural Society, provides the Percy Thrower Travel Bursary of £2,500 which is awarded to the YHoY winner. This is used to fund a research trip anywhere in the world! The Shropshire Horticultural Society is the organiser of the Shrewsbury Flower Show, the longest-running horticultural show in the world to have been held continuously in one location.

With the unwavering support of our generous and passionate sponsors, this year we continue to encourage and inspire young people. We want to support all young horticulturists, from those already familiar with this fantastically diverse industry, to those with no concept of the wonderful opportunities it can bring. We couldn't achieve this without our sponsors or the support of members and staff of the Chartered Institute of Horticulture.

For full details about the competition and news of the heats and regional finals visit horticulture.org.uk.



Shropshire Horticultural Society



Above: The Princess of Wales Conservatory at Kew Gardens. (Photo: © RGB Kew)

Left, left to right: Last year's finalists; Rosie Innes-Taylor, Emily Marston (second), Sally Newbrook, Tim Miles (winner), Josh Egan-Wyer, Frances Porter (third), Leo Walsh and Owen Harlow. (Photo: Gordon Nicholas)

News from the Committees

Education & Qualification Committee

Dr David Elphinstone: Chair. Committee members: Gerald Bonner (President), Dr Phillippa Dodds (Soft Fruit), Dr David Elphinstone (Higher Education), Paul Mooney (Further Education), Dr Ed Moorhouse (Salads and Vegetables), Dr Phil Morley (Protected Edibles), Keith Vernon (Amenity), Graham Spencer (Ornamental), Sara Redstone (Botanical). There are currently three vacancies.

The committee is developing Continued Professional Development for members who wish to maintain their Chartered status whilst also considering alternative routes for members to become Chartered (currently the only route is the application form and providing evidence to fulfil the required competences). Details of Chartered status, the ultimate achievement as a horticultural professional, can be found at: www.horticulture.org.uk/membership/chartered/

Masters level courses, provided by a consortium of Universities, are considered suitable for CPD with one module satisfying the annual requirement. Undertaking a Post-Graduate Certificate (typically three modules) or Postgraduate Diploma (six modules) with a suitable mixture of modules could be a mechanism to gain Chartered Status.

Communications Committee

Jonathan Ward: Chair. Committee members: Andrew Lambie (Pilar Dell), Stacey Drinkell (IT support) and Ruth Harris (British Growers).

The recent activity of the committee has involved social media, website, internal communications, along with reviews of the social media policy and the development of a guide for social media.

Planning is underway for the 2019 conference the theme of which is Small Business in Horticulture. The date has been set for 3 October at the Farmers and Fletchers Hall in London. In a change to previous years, the AGM will be held separately to the Conference.

Editorial Board of *The Horticulturist*

The journal of the Chartered Institute of Horticulture promotes and disseminates best practice and achievement in the science, technology, education, business, and art of horticulture to all professional horticulturists.

The new board of the journal of the CIH is chaired by Dr Owen Doyle and comprises Barbara Segall (editor of *The Horticulturist*), Jonathan Ward, Phillip Barwell, Dr Eduardo Olate and Dr David Elphinstone.

The board currently seeks articles, particularly in relation to plant science, plant production and horticulture food crops. Those willing to consider submitting such articles please email Barbara Segall (barbara@bsegall.plus.com).

Final copy deadlines for the next two issues are May 24 for August 2019 publication (or earlier) and September 27 for December 2019. Please be in touch before these dates to discuss any article submissions.

Guidelines for contributors are to be found on the CIH website

SAVE THE DATE 1

1 June 2019.
CIH AGM.
Venue: Pershore College
Avonbank
Pershore
Worcestershire
WR10 3JP
Start time: 11am

SAVE THE DATE 2

3 October 2019.
CIH Conference
'Small Business in Horticulture'.
Venue: Farmers and Fletchers Hall, London.

For further details on both the AGM and the Conference: horticulture.org.uk and in monthly e-horticulturists.

Council news

Vice-President Sue Nicholas

Following my appointment to Vice-President I have taken over Chair of the Management Board. I am excited to be part of a team who are committed to the development of the CIH.

We are pleased to welcome Keith Vernon who has accepted the office of Honorary Secretary. He brings a wealth of experience from the commercial sector and will be an asset to the team.

The restructured committees that were put in place last year are working well to improve services to members. The enhancement to the CPD scheme is well underway. The communications committee is looking at improving the website, as well as improving our social media presence. The conference agenda is in the initial planning stages.

The biggest change undertaken has been the move of the secretariat to British Growers Association (BGA).

Hon Secretary Keith Vernon

Keith has spent 43 years in horticulture and the allied industries of landscape construction, both in the public and private sectors.

He is a consummate professional, who studied toward the three-year Diploma in Horticulture and RFS Certificate in Arboriculture at the Royal Botanic Garden Edinburgh, and latterly a Masters in Landscape Architecture at the Edinburgh College of Art.

Keith is a Fellow of the Arboricultural Association, Chartered Institute of Horticulture and is a Chartered Landscape Architect.

Congratulations to...

CIH member Carol Gordon-Alleyne, Horticultural Therapist, Defence Medical Rehabilitation Centre, Headley Court, was awarded the British Empire medal in the New Year Honours List for services to rehabilitation and to injured service personnel. Carol

was the first Horticultural Therapist to work with injured service personnel in the UK for the charity HighGround. The patients were referred to her as part of their rehabilitation interventions by the clinical teams from all departments.

Headley Court, near Leatherhead, is now closed as of last September. The new rehabilitation centre is Stanford Hall, near Loughborough.



Leonardslee Gardens re-opens

The Grade I Listed Gardens – Leonardslee Lakes & Gardens – in West Sussex are re-opening in early April. Prior to their closure in 2010, the gardens attracted 50,000 visitors a year to see the outstanding displays of rhododendrons, azaleas, camellias, magnolias and spring flowers on the 97ha estate.

Described as the finest woodland gardens in England, the estate features a rock garden by James Pulham and Son (1890), a famous dolls' house museum and wallaby colony. The new owners have completed two years of intensive work that includes restoring and clearing 16km of pathways and seven lakes, as well as recording and checking the



health of more than 10,000 trees.

Entrepreneur Penny Streeter OBE and family, owners of the Benguela Collection Hospitality Group, have restored the estate as a prime destination for international tourism, with new facilities, including for fine dining.

Further information from www.leonardsleegardens.co.uk

BRANCH REPORTS

EASTERN

Cambridge Botanic Garden visit

Our first visit of the year was to Cambridge University Botanic Garden (CUBG). We were scheduled to have a tour of the seasonal highlights, including the winter garden and new 'Rising Path' installation over the systematic beds. However, due to the gusting winds on the day (>45mph) the garden was closed to the public on safety grounds. We quickly had to come up with an alternative plan and hope that the garden would reopen later in the day when the wind dropped. The group of 30 members and visitors was split into two groups, with one group touring the Sainsbury Laboratory's plant growth facilities and the second group having a behind-the-scenes tour of the garden's reserve glasshouses and nursery with glasshouse supervisor **Alex Summers**. We then swapped over so everyone got both tours.

Alex set the scene explaining that the main remits of the garden are research, education and conservation on a local and a global level.

CUBG is involved in many programmes for sourcing, sharing and donating plant material. Threaded through these activities is the Convention on Biological Diversity 1992, the most important part of this being that all countries own their own biodiversity.

Any material bought in has traceability! The Nagoya Convention (a supplementary agreement of 2010) also plays a big part in what the garden does and is responsible for the fair sharing of material and benefits arising from that material on a global level. The Convention on International Trade in Endangered Species (CITES) and phytosanitary regulations on plant health all have to be adhered to. Quarantining of material is undertaken for all new material brought into the garden. There is no commercial material brought in.

Featured in the glasshouse range is *Victoria amazonica*, the waterlily from South America, which needs as much light as possible to germinate. The seed has an apocarpium (lid structure), which is knicked to break dormancy. Alex showed us the puffer fish and guppies that are put in the large *V. amazonica* tanks to control snails!

There was an IPM system in place but biocontrol is the main method used now which needs to be introduced at a crucial time to have enough of the pest to keep the beneficials fed and breeding, but not too much that the pests do vast damage to key crops.

Alex is building a collection of mosses, liverworts and hornworts. These are rarely represented in botanic gardens, but research projects will be taking place here very soon and hopefully become ongoing.

Provenance data of plants is crucial to be confident that the species and taxa are correct. In the garden each plant has a unique code and QR codes which staff can use to track plants through the garden, but on a global level this is undertaken by legally collecting from wild colonies and working with other botanic gardens.

Among the many plants that Alex singled out was *Drosera regia*, which has up to 50cm leaves. It is a plant that is now not in the wild – heat in South Africa has killed off all wild colonies, so keeping these plants going at a botanical garden level is crucial.

Araucaria araucana and *A. heterophylla* are two of the well known species of the 11 found growing on New Caledonia. This island between Australia and Fiji has altromorphic soils that are high in minerals which are mined for mobile phone components and other modern tech. This of course results in the stripping and destruction of the ancient and diverse flora. It's a hot spot for gymnosperm biodiversity, plus *Parasitaxus ustus*, an amazing member of the Podocarpus family, a parasitic conifer that grows in large orbs on other trees! Aren't plants amazing!

The last glasshouse contains proteas and banksias. The collections here are designated Z collection, which means they are wild collected. For many of the plants here smoke treatment is the only way to get seed to germinate and so bins are used to create smoke chambers for the seed to be put in.

Air pots are used as much as possible in the nursery for aiding root development, as many of you know the system enables air pruning of the roots, creating a fuller root system with plenty of young roots and most importantly no spiralling and strangling of the system.

We followed this with a tour of the growing rooms and glasshouses over at the Sainsbury Laboratory with **Jason Daff**. I have not written about it here as



Above: The winter garden, now 40 years old, didn't disappoint. The stems of vibrant *Cornus* 'Winter Beauty' and seedheads of miscanthus combine to make a great show. (Photo: Ian Roofe)

it was covered in a previous report, but is always a very interesting look at genetic research in *Arabidopsis* species.

Once the gardens re-opened members could set off and explore them. The borders into the garden were smelling sweet with drifts of *Galanthus* 'S Arnott' and the Rising Path walkway near the systematic beds was informative and gave interesting views.

And of course there was the winter garden which I first saw on a college trip in 1997; now 22 years later, it is still looking good and confirms my love of winter plants.

Thanks must go to Jason Daff for organising this visit, sorting coffee, cake and biscuits, allowing us time to network and evolving the day as the weather required.

Future events

1 June

Joint Visit with the South East Branch to Lea Valley pepper grower 'Gee Vee Enterprises' Roydon, Essex to be followed by a visit to The Gibberd Garden Harlow, Essex.

13 July

Visit to Kings Seeds Coggelshall, Essex. Followed by the Annual Branch Meeting 1pm. White Hart Hotel, Market Hill, Coggelshall, Essex CO6 1NH.

Ian Roofe MCIHort

Eastern Branch Events

eastern@horticulture.org.uk

SOUTH EAST

The branch enjoyed a wonderful visit to The Savill and Valley Gardens, part of Windsor Great Park, in November. Keeper of the Gardens, **John Anderson** gave generously of his time, as did **Michele Cleve**, Supervisor of The Savill Garden, and **Patricia Craven**, Supervisor of The Valley Gardens.

In the 1930s the original 14-ha site in Windsor Great Park was planted by Director of Gardens, **Sir Eric Savill**. The garden has been popular since it opened to the public in 1951, and in 2006 a magnificent new building was opened as a hub for the 404.5 ha landscape of Windsor Great Park. There are six million visitors to the park annually, and 1,000 to the Savill Building; the Savill Garden being the only part of the wider park that has an entrance fee.

The gardens appeal to garden visitor and dedicated horticulturist alike. The views are stunning and the planting varied, but there are also nine National Collections with over 1,000 different species. For instance the magnolia collection covers 450 species. With such vast collections there are plans to review the national collections, possibly to keep the best, rather than have just the new or the many. Possibly some parts of the collections will be dispersed. Of course all plant material presented to Her Majesty the Queen must be kept, but during the 1990s a trend for planting memorial trees has proved difficult to manage, and John is keen that the gardens must have enough freedom to evolve. New paths to improve accessibility, and a future-proofed power and irrigation system using water from the lakes are just some of the developments to ensure a successful future.

The gardens also boast champion trees and focal views for every season. While we were there the autumn colours were dramatic – foliage, bark and stems all sang in the bleak November light (and pouring rain).

The 113ha Valley Gardens, a short drive away are a great spring and summer attraction with hundreds of azaleas and rhododendrons for the spring and many species and cultivars of hydrangeas flowering during the summer months. John thought *Hydrangea paniculata* 'Phantom' performed the best during the long hot summer of 2018.

Vistas have been opened up with some brave tree surgery to manipulate light. Drainage pipes in the famous

'punch bowl' area have been replaced and improved to help preserve the oaks that provide the backdrop to the other planting.

Propagation on and off-site is ongoing, together with some hybridisation work. Attracting and retaining skilled staff is a continuing challenge, and the gardens do offer apprenticeships. Twice a year all staff work together in different teams on 'estate clean-up days' – a great way to meet others and experience different roles!

We all enjoyed the day, and I'd recommend a visit any time of year.

Christmas lunch

Branch members and partners had a fun Christmas lunch together in Central London in early December. Some old and new faces attended to enjoy a bit of festive cheer while we discussed exciting new roles abroad or in new fields for some, digital communications and horticultural trips, together with the relative merits of our choice of the red or white wines!

Future events

13 July

The South East Branch ABM will be held at the fascinating Stoke Poges Memorial Gardens, a Grade 1 listed garden, designed in the early 1930s by Edward White, a founding member of the Landscape Institute. His brief was to create a space for the interment of ashes that was to resemble a country garden. A tour by Head Gardener, and SE member, **Franzi Cheeseman** will start at 10.30am on Saturday 13 July, followed by the ABM and lunch at a local pub. Come and join us!

Angela Evans FCIHort

Branch Chair

southeast@horticulture.org.uk

WEST MIDLANDS & SOUTH WALES

Ashwood Nurseries

Ashwood Nurseries near Kingswinford was the venue for the March branch visit. Hellebores and hepaticas were the stars of the show and the branch saw the process involved in their production. The morning visit to the nursery was followed by an afternoon tour of the private garden of the owner **John Massey VMH**.

The nursery was purchased by John's parents, Joseph and Hilda Massey, in 1967 and was in a run-down state. The original nursery grew trees and shrubs sold as bare-rooted stock in winter. John worked with his parents to transform the nursery, modernising and moving from bare rooted to container stock. In 1970 the name changed to Ashwood Nurseries.

John was keen to stop the traditional practice of laying off nursery staff in winter and so he decided to look at plants that enjoyed winter and early spring sales and early flowering hellebores were the ideal crop. John has often said that his business is driven more by his love of plants than commercial pressures. This passion for plants has helped to establish Ashwood's worldwide reputation for hellebores and hepaticas with plants being exported all over the world. The nursery has also collected an impressive number of Royal Horticultural Society Gold Medals for its outstanding exhibits at shows.

When John and his staff embarked on their ambitious hellebore breeding programme, flower colour was largely restricted to 'mucky whites' and 'dirty pinks'. Careful hybridisation has introduced yellow and purple into the

Below: Steve Lampitt and members in amongst the hellebore stock plants at Ashwoods Nurseries in March. (Photo: Chris Whitelock)



range and flower colours are brighter with intricate patterning of the petals. Some varieties are propagated by division and a few are micro-propagated, a process that is outsourced but the vast majority of plants are propagated by seed.

Stock plants are carefully crossed in a controlled environment and each cross is meticulously recorded. Successful crosses are replicated to result in an improved offering by the nursery. After pollination, the developing seed heads are encased by jewellery bags to collect the seeds, which are sown fresh. As any gardener will testify, hellebore seed germinates readily. Plants are grown for three years before sale to ensure that the customer receives a plant that will perform well in the garden. We were grateful to **Steve Lampitt** for giving us a fascinating insight into the work of the nursery.

The afternoon session proved just as interesting. John Massey VMH conducted a personal tour of his delightful garden that nestles between the nursery and the Staffordshire and Worcestershire Canal. Like the nursery 'John's Garden' is famous for its outstanding plantsmanship, innovative design and high standards of husbandry. Inspired by Le Vastival Garden near Dieppe and its late owner, the Princess Sturdza, John adopts a pruning technique called 'transparency pruning' which respects the natural shape and form of trees.

The garden covers slightly over a hectare and is tended by a head gardener and a team of gardeners assisted by John. The garden has many features including island beds, grass borders, stumperies, a pool and rock garden, wildlife meadow and a South African border that contains many drought-tolerant plants. Naturally the garden contains many of John's favourite genera such as *Helleborus*, *Cyclamen* and *Hepatica* but many other genera feature including *Malus*, *Betula* and *Cornus*. The garden is constantly evolving with input from the head gardener as well as John. Its reputation for excellence is well deserved. We are very grateful to John for giving up his time to give us a very valuable insight.

Future events

27 April

Morning: Melcourt at Tetbury to look at how they produce their composts and soil improvers. Afternoon: 2pm Duchy Farm near Tetbury.

8 June

Riverside Gardens at Claines and Link Nurseries at Powick Worcester
Morning: 10am Riverside Gardens at Claines for a tour of the gardens and an

indoor PowerPoint display to show the history and restoration progress of the gardens. Tea/Coffee provided. Cost for all morning £7.00. Afternoon: Link Horticultural Therapy Unit at Powick followed by the Annual Branch Meeting.

20 July

Richard Colwill/Matt Foster – Cherry Growers Little Witley Dingle Farm and Stonehouse Cottage Garden. Morning: 10.30am for a tour of the cherry growing site. Possible lunch at café near Great Witley Church. Afternoon: 2.30pm Stonehouse Cottage Gardens £5.00 for entry and owner will give an introductory talk.

14 September

Bordervale Plants Vale of Glamorgan Set within mature oak woodland this is a nursery specialising in unusual herbaceous perennials. The owner is a CIH members who looks forward to showing us round the nursery.

2 November

Westonbirt Arboretum. Morning: Cost £8 for Group rate. We will also arrange a tour at £3 a head. Followed by a lunch at the onsite restaurant, which will be our end of year social meal.

Please note

Members from any branch are invited to our visits. It is usually requested that any member wishing to attend makes prior contact with us at

westmidswales@horticulture.org.uk

Whilst we will try to stick to the above details, it may be inevitable to have to make amendments or cancel a trip due to unforeseen circumstances. Details of any visit are liable to change and it is best to await a visit notification nearer to each visit or by getting in touch with the Branch Chairman or Secretary before each event.

We are always planning for next year's programme and if you have any suggestions for valuable and educational trips that would enhance our popular annual programme then please get in touch with the Branch Chairman **Josh Egan-Wyer** (josh@joshew.co.uk or mobile: 07779 009545) or the Secretary **Lynn Stevens** (lynn.m.gibson@btinternet.com or mobile: 07976 478884).

Chris Whitelock MCiHort

Branch Correspondent

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NORTHERN

In January Askham Bryan College, York hosted its Third Annual Horticulture Conference. Welcoming over 150 participants including students and industry leaders, the day was a combination of guest speakers and networking with a range of exhibitors.

Sarah Owen-Hughes, HE

Horticulture Course Manager explained: "The theme we chose this year was 'A Career in Joy' to promote the well-being that working in the industry can encourage. It is so rewarding to share our passion for plants with local businesses and for the students to start to make their first contacts with them".

Guest speakers were Zeina

Chapman (Liberty Produce Vertical Farming); **Geoff Derham** (Yorganics composts & College alumni); **Mark Wood** (GreenTech); **George Metcalfe** and **Tom Watkins** (Johnson's of Whitley, and College alumni); **Mark Warner** (Plate 2 Plate) and **Di Wood** (Wild Harvest Permaculture).

The college held its local heat of the CIH Young Horticulturist of the Year during the day and is looking forward to the regional heat at Thorp Perrow.

Exhibitors came from: British Association of Landscape Industries, Chartered Institute of Horticulture, English Heritage and Historic and Botanic Garden Trainee Programmes, GreenTech, Johnson's of Whitley, King's Seeds, Makita, Marshall's, Melcourt, National Trust, Newby Hall, Northern Fruit Group, Perennial, Professional

Members' Bookshelf



The Yorkshire Organic Gardener

by Graham Porter
Published by Jeremy Mills Publishing in 2018
(jeremymillspublishing.co.uk/bookshop)
£15 (plus £3.95 p&p) ISBN 9781911148241.

In the book Graham Porter BBC and North of England Horticultural Society gardening expert, covers organic and wildlife gardening in equal measure, from bacteria to badgers and blooms to bushes, with some personal views on where the world of gardening has gone over recent decades.



Wedding Flowers A Step-by-Step Guide

by Judith Blacklock
Published by The Flower Press in 2018
£35 ISBN 9780993571527.

In this highly illustrated book Judith Blacklock, Principal of The Flower School and publisher and editor-in-chief of *Flora* magazine, offers step-by-step guidance to creating glorious wedding flowers. Readers of *The Horticulturist* can purchase the book at half price £17.50 plus £4 p&p (quote Hortoffer and obtain through www.selectmagazines.co.uk).



The Gardens at Brantwood - Evolution of John Ruskin's Lakeland Paradise

by David Ingram
Published by Pallas Athene & The Ruskin Foundation in 2014.

Copies may be purchased by readers of *The Horticulturist* from The Shop, Brantwood, Coniston, Cumbria LA21 8AD, at the Brantwood visitor's discounted price of £5.95 plus £3.00 p&p (total £8.95).



Gardeners' Guild, Royal Horticultural Society, Stockbridge Technology Centre, Tricet, Women's Farm and Garden Association, Wild Harvest, World Wide Opportunities on Organic Farms and Yorganics.

The success can be measured by notices of jobs and placements that were secured, projects and trials arranged and connections built with guests from Kirkley Hall, Shipley and Brooksby Melton Colleges.

For more information on courses, please see www.askham-bryan.ac.uk or contact sarah.owen-hughes@askham-bryan.ac.uk. A further article by Sarah Owen-Hughes on Gardening for Joy can be found at www.gardeningfordisabledtrust.org.uk/blog/

Harrogate Spring Flower Show

25-28 April at the Great Yorkshire Showground, Harrogate. Now a regular feature of the show, the Gardening Advice Bureau, staffed by volunteers from the CIH, will offer horticultural knowledge and answer questions from the public. The stand is a joint venture between the North of England Horticultural Society (NEHS), organisers of the show, and the CIH. Established in its present form in September 2011, it has become a major feature of both the Spring and Autumn Shows.

Graham Porter, retired Chairman of the Northern Branch, has been organising the stand since its creation and continues to rise to the challenge of answering upwards of 800 questions at both shows, with the expert help of a band of CIH members. For more details of both shows, visit www.flowershow.org.uk. The NEHS is our major sponsor of the regional YHoY competition, alongside Stockbridge Technology Centre. The Autumn Show is on from 13-15 September. If you are heading for the show as an exhibitor or visitor, do come along to the Gardening Advice Bureau stand and make yourself known to us.

Sue Wood MCIHort

Branch Correspondent

northern@horticulture.org.uk

Above: Gardening Advice Bureau at Harrogate staffed by CIH volunteers.

NORTH WEST & NORTH WALES

ABM at Ness Botanic Gardens

The branch's Annual Business Meeting was held in the picturesque surrounding of Ness Botanic Gardens in Cheshire. The 25-ha gardens owned by the University of Liverpool overlook the Dee Estuary with stunning views of North Wales.

Outgoing Chair **Sue Nicholas** led the meeting that highlighted a varied line up of CPD visits ranging from Trentham Gardens to Smithy Mushrooms, one of the leading UK growers of speciality mushrooms. Membership continues upwards helped in part by the free student offer.

The Branch Committee was elected as follows: Chair & YHoY organiser, **Andy Lambie**; Secretary, **Robert Macket**; Treasurer, **Gordon Limb**; Branch Representative, **Gareth Manning** and committee members **Victor Criddle** and **Richard Lewis**.

On behalf of the branch I would like to thank Sue for all her work over the years on the committee in various roles but latterly as Chair and Branch representative. She has been instrumental in keeping things moving forward at the branch. We are sure she will be very successful in her new role as Vice President helping to move the Institute through its next phase of development.

Following lunch, I led a tour of the gardens, which were originally established in 1898 by Arthur Kilpin Bulley. A very successful businessman he was however a plantsman at heart. He set up the gardens to grow the many and varied plants he received from a network of connections abroad before he went on to sponsor professional plant hunters.

After his death in 1942 the gardens were bequeathed to the University of Liverpool by his equally remarkable daughter Lois. The University has since built on his legacy and developed a botanic garden complete with internationally respected research and plant collections. The gardens are also a delight to visit having a rich ornamental landscape featuring herbaceous borders, potager, rock garden through to a Mediterranean planting and a two-hectare wildflower meadow.

Andy Lambie CHort MCIHort

Branch Chair

northwest@horticulture.or.uk

SCOTLAND

Grow Horticultural Careers Day

The CIH Scottish Branch organised and sponsored a Grow Careers Day in February held at and supported by the Royal Botanic Garden Edinburgh (RBGE). The day has become an annual fixture and was well attended by more than 250 participants. Fellow sponsors included LANTRA, Scotland's Rural University College (SRUC), GO Landscape, the MacRobert Trust, Royal Caledonian Horticultural Society (The Caley), Scottish Government, GP Plantscape, Caulders Garden Centres, Pentland Plants and the Landscape Institute Scotland.

George Anderson, well-known Scottish horticulturist and presenter of BBC *Beechgrove Garden* chaired the event. In his opening remarks he noted the age range of participants in the audience eager to network and grasp one of the many strands of horticulture offering sustainable career opportunities.

The first speaker of the day was CIH Immediate Past-President, **Owen Doyle**. Drawing on key moments in his career that had either driven him forward or caused him to pause and consider a change in direction, he stressed the importance of formal education as a foundation for career growth and success. His address built on horticulture as the art, science, technology and business of cultivating and using plants to improve human life. Taking each of these topics he demonstrated the many and diverse opportunities for individuals, focusing in particular on horticulture's role in addressing the ills of our modern society, including physical inactivity and chronic stress.

The rest of the morning was devoted to a series of excellent presentations by three young practitioners and a mature career-changer. This session was perhaps the most relevant to the many students in the audience and the presentations, chaired by RBGE Herbaceous Supervisor **Kirsty Wilson**, were thought-provoking and fascinating.

First up was **Kate White**, Head Gardener for the Japanese Garden at Cowden in Clackmannanshire. She was followed by **Sophie Lewis**, based in Shropshire with tree nursery business Frank P Matthews. **Lee McPherson**, a horticulturist in the public sector with East Lothian Council and a mature convert to the profession, was next. Hazel France from RBGE brought this session to a close.

FOLLOW THE CIH ONLINE

Website: horticulture.org.uk

Facebook: CIHort Twitter: @CIHort

The presentations covered a range of horticultural activities and had some common themes. Each presenter had taken time after leaving school and trying various jobs before finding and identifying horticulture as their profession of choice. Their passion and commitment shone through and they stressed the importance of education and achieving a qualification relevant to their sector. They were also clear on the need to work hard, grasp opportunities, including the many bursaries available for international travel and development and to not be afraid to operate outside comfort zones when called upon.

A buffet lunch gave delegates the opportunity both to network and speak to representatives of the various

professional bodies and commercial organisations who had taken stands for the day.

The first speaker of the afternoon was **David Knott**, President of The Caley and Director of Horticulture at RBGE. His talk was entitled 'Gardening the Earth', and focused on the importance of horticulture in today's world in sustaining a healthy environment, leading on to the many career opportunities for individuals.

David was followed by **Simon Jones**, Gardens and Designed Landscapes Manager (Glasgow and West) for the National Trust for Scotland. David gave a fascinating talk on how the need to transform the shelterbelt at Arduaine (pronounced Arduny) following an

outbreak of *Phytophthora* had led to opportunities to create an internal market for the felled timber both on site and for the Trust as a whole.

Simon had recognised early in the programme that the use of external contractors for the felling would carry a net cost for the Trust and would also have lost them the use of the timber. Using their arboriculture team to fell and transform the felled timber into biodegradable shelter belt material to protect the now exposed valuable rhododendron and camellia collection had yielded an important sustainable resource for the property. In addition the felled timber had been used to create fencing posts for deer protection and similar products for use at other Trust

Right: The Grow Careers Day event was attended by some 250 delegates and sponsors.

Far right: Tom Angel manned the CIH stand.

Celebrate gardens, garden design ideas as well as plants, tools and accessories at GARDENING SCOTLAND.

It takes place from 31 May to 2 June at the Royal Highland Centre, Edinburgh.

New Members

1 = Amenity
2 = Commercial
3 = Education
4 = Advisory & Research

MEMBER

James Baker 1
Garden Designer/Gardener Essex
Simon Beasley 2
Agronomist Shropshire
Louisa Bell 2
Proprietor West Sussex
Lorcan Bourke 2
Fresh Produce and Potato Sector Manager Dublin
Emma Browne 3
Head Gardener Surrey
Vincenzo Brugaletta 2
CEO London
Paul Conley 2
Senior Contracts Manager Hertfordshire
Stephen Daye 1
Head of Parks County Antrim
Claire Flynn 1
Landscape Chargehand Aberdeenshire
Lucy Foskett 3
Horticulture Tutor Worcestershire
Chongboi Haokip 4
Independent Consultant Berkshire
John Hosford 2
Cork
Steve Humphreys 1
Horticulturist West Sussex
Robert Hunt 1
Director of Horticulture Staffordshire
Robert Jackson 2
Director Suffolk
Adrian Jones 2
Plant Manager Manchester
Beverly Law 2
Business Development Surrey
Maureen Little 2
Plant Centre Owner and Author Lancashire
Eoin Long 1
Head

Gardener Kilkenny
Darach Lupton 4
Head of Botany Oman
Ormungandr Melchizedek 1
Self-employed Perth and Kinross
Simon Nash 1
Arboricultural Consultant West Midlands
Ciamad Ryan 3
Lecturer Tipperary
Rachel Salisbury 3
Worcestershire
Jamie Satterthwaite 2
Gardener Renfrewshire
Matthew Seaby 1
Business Owner Cambridgeshire
Stephen Seaman 1
Grounds Supervisor Dublin
Glenn Sharmar 2
Isle of Wight
Liz Smith 1
Surrey
Billal Hassan Taj 1
Team Leader Landscapes Northamptonshire
Richard Tomlinson 4
Landscape Manager Cheshire
Peter Turski 1
Senior Horticulturist Buckinghamshire
Eoghan Watt 2
Grounds Maintenance Manager East Dunbartonshire
Lucy Welsh 2
Head Gardener Kent
Alex Wigley 1
Garden and Outdoor Manager Surrey
Andrew Wright 1
Director Kent
Deborah Wright 4
Technician North Yorkshire
Chi Him Humphrey
Yeung 4 Senior Health Safety and Sustainability Officer Kowloon City

ASSOCIATE

Ian Byrne 2
Manager Herefordshire
Hugh Chapman 2
Landscape Co-ordinator Cambridge

Julia Durbin 3
Horticultural Instructor London
Kevin Downs 1
Self-employed Staffordshire
Denis Flanagan 4
Association Manager Ontario
Andrew Fraser 4
Horticultural Manager Glasgow
Colin Hickman 1
Garden Maintenance Nottinghamshire
Chris McAlpine 2
Gardener Cheshire
Barry Straker 2
Business Owner Hampshire

STUDENT

Aline Abreu 1
Student Edinburgh
Amanda Anderson 2
Student Northumberland
Sophie Arvanitidou 3
GC1 Suffolk
Elizabeth Bailey 1
Student Cambridgeshire
Annette Baines-Stiller 4
Garden Designer Hampshire
Alan Baird 1
Student County Antrim
Sue Balaguer 3
Student Spain
Joseph Bangs 3
Student Surrey
Rhys Bevan 2
Apprentice Gardener Worcestershire
Anton Blackie 1
Student Essex
James Blair 2
RHS L2 Practical Horticulture Somerset
Kathryn Boddy 2
Horticulture Apprentice Devon
Steve Brett 1
Head Gardener Wiltshire
Isaac Bridget 3
Student Dorset
Lianne Brogan 4
Student of Garden Design Manchester
Lisa Brown 3
Student Sway Hampshire
Stephen Burgoyne 3

RHS Student Beds
Melanie Cable 2
Student Berkshire
Elliot Careford 1
Student Bedfordshire
James Carr 3
Student Hertfordshire
Shirley Chapman 3
Student Derbyshire
Gill Charman 2
Student Cambridgeshire
Colin Charmartin 3
Student Dublin
Rosanne Cobbald 4
Student Essex
Steve Codling 3
Student Hertfordshire
Bethan Collerton 1
Student Tyne and Wear
Emma Crane-
Robinson 2
Student West Sussex
Matt Critchlow 1
RHS Practical Horticulture Student North Yorkshire
Jonathan Dakic 1
Student West Sussex
Nadine Davies 1
Horticulture Apprentice West Yorkshire
Samantha De Voest 3
Student London
Andrew Devine 1
Student North Yorkshire
William Dickson 1
Propagator Gardener County Antrim
Andrew Douch 1
RHS Level 2 Certificate in Practical Horticulture Suffolk
Verena Downes 1
Volunteer Gardener Cambridgeshire
Alison Driver 3
Student/Garden Designer Middlesex
Emma Durley 3
Student/Eden Project Cornwall
Hannah Ellis 3
Student Berkshire
Louisa Fearn 3
Student West Yorkshire
David Feehan 1
Retired/Volunteer RHS Student

Leicestershire
Russell Fletcher 3
Horticultural Apprentice Wiltshire
Lucy Gidney 3
Student Cheshire
Victoria Glover 3
Student Eden Project Cornwall
Scott Griffiths 1
Maintenance Cheshire
Tom Grice 1
Student West Midlands
Kathleen Hewitt 3
Retired/Student Warwickshire
Alison Henthorn 1
Student Cambridgeshire
Patricia Hirst 3
Clerk/Student East Yorkshire
Janine Hockliffe 1
Student Dorset
Briony Howe 3
Student West Sussex
David Humphries 1
Student West Yorkshire
Angela Hunter 2
Student/Specialist Gardener Perthshire
Natalie Hutton 3
Student North Yorkshire
Gregorio Jacob 3
HNC Horticulture and Plantsmanship Midlothian
Tracey James 1
Gardener Somerset
Bryony Jaques 1
Cambridgeshire
Kathryn Jones 1
Student Glamorgan
Phoebe Jourdan 3
Bsc Hort and Plant Science Cornwall
Laura Keating 2
Student Warwickshire
Jack Kelsey 2
MSc Agriculture & Development Student Berkshire
Niamh Kendall 1
Hort Therapist London
Waleed Khan 3
Student Peshawar Pakistan
Susan Knight 1
Student Berkshire

Lizzie Lacey-
Brennan 3
Student London
Stephany Leach 3
Student (Part Time) Somerset
Jak Lever 2
Student Nottinghamshire
Rebecca Lloyd Jones 3
Student Buckinghamshire
Gearoid Leonard 3
Student County Kerry
Tomasz Litwin 2
Part Time Student Suffolk
Luke Llewellyn 1
Student Worcestershire
Katarina Lukic 3
Student Nottingham
Philip Lynch 1
Student Meath
Andrew Mackenzie 3
Student / Gardener Warwickshire
Elizabeth Mansfield 1
Trainee Horticultural Technician London
Michelle Marriott 2
Gardener/Student Oxfordshire
Natasha Marshall 3
Student Kent
Gill McNeill 2
Student Belfast
Kai Moretti 1
Student Tyne and Wear
Kim Morgan 3
Student Edinburgh
Ben Medley 1
Gardening Apprenticeship Cheshire
Rohin Mohite 2
Student India
Rebecca Mole 2
Student/Eden Project Cornwall
Jane Murgatroyd 3
Student Derbyshire
Tom O'Regan 1
Student Buckinghamshire
Kyle O'Sullivan 3
Student Cork
Christiana Owolabi 4
Landscape Designer Nigeria
Sid Perkes 3
Student Bedfordshire
Emma Paczy 1
Student Cambridgeshire

Emma Page 1
Manager Hampshire
Tim Parker 1
Gardens and Countryside Manager Kent
Mark Poyser 2
Student Chelmsford
Annabel Rudd 1
Student Cambridgeshire
Will Saunders 3
Student Warwick
Amy Shulman 1
Student Staffordshire
Stu Small 3
Student Cheshire
Claire Smith 1
Student Middlesex
Penelope Smith 3
Student Birmingham
Steven Spencer 2
Student South Yorkshire
Kobus Stander 2
Nursery Assistant Edinburgh
Edward Stevens 3
Student Gloucestershire
Eileen Sung 1
Student Belfast
Aya Takeyama 2
Student Berkshire
Emma Thomas 1
Gardener Buckinghamshire
Francis Thomas 3
Student London
Sian Thomas 3
Senior Urban Designer Bristol
Davian Thompson 2
Student Birmingham
Roshan Tulachan 1
Gardener Oxfordshire
Nicola Walter 4
Student Nottinghamshire
Sam Warren 3
Ground Maintenance London
Emma Whittam-Ritchie 3
RHS Student West Yorkshire
Sarah Whittington 3
Director Merseyside
Emma Wilson 2
Gardener and Garden Designer Norfolk
Emily Wood 1
Student Essex



properties.

George Anderson rounded off the day by thanking sponsors, presenters and participants, hoping that the latter had had the opportunity to network and appreciate the value and diversity of horticulture as a profession with a huge range of opportunities.

Visit to the Science & Advice for Scottish Agriculture (SASA) headquarters and testing station

Scottish Branch members and Scotland's Rural College students from the Oatridge Campus joined for a visit to see cereal seed testing in action and hear about other current developments at SASA in March.

The group was welcomed by **Mike Parker**, Head of Seed Certification, who lead the visit. He explained the origins of SASA, which started with seed testing and seed potato classification in the early part of the 20th century. The current operations at Gogarbank, adjacent to the Edinburgh City bypass and south of the headquarters building of the Royal Bank of Scotland, were established in 2006. The site had been in permanent grassland since WWII and work was carried out to improve both drainage and fertility so that the site could be used for vegetable field trials as well as housing administration and laboratory space.

Highlights of the tour included looking at the techniques used in the Official Seed Testing Station (OSTS). The OSTS offers a wide range of laboratory tests including germination, purity, seed identification, disease and vigour for species of agricultural, horticultural, flower, tree and medicinal seeds.

The group was shown the work performed on Seed Certification on behalf of the Scottish Seed Certification Scheme, which includes administration and organisation of the certification and enforcements of crops including cereals, herbage, oil seed rape, peas and beans and brassicas. It also operates annual training courses in crop and seed certification and seed sampling for the Scottish Government, trade inspectors and samplers. Over 1,000 cereal crops are certified annually with spring barley the dominant crop (over 60%), followed by winter wheat

(approximately 18%).

Seed Physiologist **Laura Bowden** took the group through the techniques for testing seed, including the all important visual check to remove weed seeds and other foreign material. She explained that the viability of many cereal seeds was then tested by propagating them in dampened paper towels. Pulses, which cannot be tested in this way, are propagated in soil. We were shown evidence of various diseases affecting cereal and pulse crops such as the *Ascochyta* and *Ergot* fungi – the latter producing hallucinatory effects which could ultimately prove fatal in certain circumstances.

Tom Christie, the Head of Variety Testing then explained how new vegetable cultivars are established to support the issuing of Plant Breeders' Rights. Key tests are on the Distinctness, Uniformity and Stability (DUS) of seeds and well as Value for Cultivation and Use. An extensive database of current and historic vegetable crops is maintained for approximately 20,000 accessions and we were shown the bank where seeds are stored at -20°C. SASA collaborates with the Millennium Seed Bank, which provides back-up for its seed collection.

Tom explained that the Variety Testing Unit (VTU) also promoted the Scottish Landrace Protection Scheme that addresses both the conservation and heritage of agricultural and vegetable crops. He gave the specific example of work on the Shetland cabbage/kale which is uniquely adapted to the climatic conditions of Shetland and where the VTU has worked in partnership with local farmers to maintain the quality and vigour of seeds.

The morning concluded with a brief presentation on the impact of Brexit on the future of seed certification in the UK. While a plan is in place to transition, it was made clear that one impact would be significant duplication for growers/breeders wishing for both UK and pan-European certification amongst many other uncertainties.

Neil Woodcock ACIHort

Peter MacDonald MCIHort

Branch Secretary

scotland@horticulture.org.uk

OBITUARY

ROBIN WILLIAMS 1935-2018



Robin Williams VMM FSGD FIHORT FAPLD (right) passed away in November at home after a long illness. Robin was highly thought of as garden designer, lecturer and writer on garden and landscape design.

Robin was born in 1935 and grew up in wartime Bristol. He and his brother were keen members of the Boys Brigade and he attended Bristol Technical School, followed by National Service in the RAF.

Once National Service was completed he was employed as an accounts clerk for Bristol Waterworks. It became clear that he was not keen on office work and given his great interest in and enthusiasm for gardens and gardening, he set up his own landscape company Williams and Parry in 1960.

In the early 1970s he worked for Jackman's of Woking as their senior designer and became a lecturer at Merrist Wood, a post that he held for several years. In the late 1970s he began to establish himself as a freelance, setting up an international garden and landscape design practice, which later became a partnership with his son Robin Templar Williams. He was the author of several books including *How to be Your Own Architect* (1995) and *The RHS Garden Designer* (Revised Edition 2007).

He was a Fellow of the Society of Garden Designers of which he was a founding member and past chairman, a Fellow of the now Chartered Institute of Horticulture and the Association of Professional Landscape Designers (USA) and a Liveryman of the Worshipful Company of Gardeners.

Robin was a recipient of the RHS Veitch Memorial Medal, was a past RHS council member and a past RHS show garden judge. During his 40-year career he won some 12 Chelsea medals. His international commissions included projects in Europe, the US and Japan. His show gardens in Japan were also award-winning. Among many other awards and accolades, he received the Society of Garden Designers Lifetime Achievement Award in 2015 in recognition of his work and influence in the industry.

Robin Templar Williams FSGD MBALI FAPLD (USA)

BOOK REVIEWS

Gardening Across The Pond: Anglo-American Exchanges from the Settlers in Virginia to prairie gardens in England

By Richard Bisgrove

Pimpernel Press £40

ISBN 97819910258248

"Sutton and Sons are the only English House to whom a consignment of this new Pea [American Wonder Pea] has been sent for sale by the raisers, Messrs. B. K. Bliss and Son, of New York". This extract from a Sutton's seed catalogue of 1881 reproduced in the end papers of *Gardening Across The Pond* captures its essence.

The author, Richard Bisgrove, now retired from the University of Reading, has drawn together a wealth of horticultural material covering 400 years of gardens and gardening on both sides of the North Atlantic. In doing so he has traced the development of gardens and nurseries, and trends in garden design, while exploring the 'exchanges' of the title of England on America and vice-versa.

There are fascinating accounts of how in the 18th century George Washington and Thomas Jefferson were influenced in their garden-making by English garden writers and designers. A century later travels by William Robinson across America and Frederick Law Olmsted to English landscape parks had a significant impact on their respective careers as writer and landscape architect. While the contribution of North American plants and those of particular plant collectors, such as David Douglas or designers such as Beatrix Farrand, are well known, this book places their contributions in context.

In the 20th century wealthy Americans moved to England where among others the Astors left their stamp on Cliveden and Lawrence Johnston created a garden at Hidcote Manor.

Nor is the book limited to the private owner – the development of parks by Joseph Paxton and J C Loudon in England and Olmsted and Calvert Vaux – is well documented, as is the emergence of landscape architecture in America, England and Europe.

The book ends with current topics, describing the 'High Line', an elevated walkway in New York, prairie communities in US or their transatlantic counterparts – wildflowers meadows, community gardens and exchange programmes for young horticulturists.



With an eye to plant science, the author describes how botanic gardens in the US, while maintaining scientific research introduced visitor attractions and public participation, a practice now common in these islands.

The book is well illustrated with garden plans, drawings, black and white photographs and reproductions in colour of paintings and photographs of garden designers and their works. Garden historians, plants people, horticulturists and social historians, among others have much to learn from this enjoyable and informative book.

**Mary Forrest FCIHort Associate
Professor School of Agriculture and
Food Science, University College
Dublin**

Garden Practices and Their Science By Geoff Dixon

Routledge/Taylor Francis Group £29.99

ISBN 9781138209060

I don't mind telling you that there are one or two things that I once remembered better than I do now. Some of these areas of knowledge have been replaced in the brain's meagre memory allocation, no doubt, by essential items from the compendium of modern life, such as the endless and ever-growing list of PIN's required to access apparently vital activities. Other bits of brain real estate may have been over-written or compulsorily acquired as a result of the need to find storage for compelling lists of trivia, useful foreign phrases, and stuff generally needed for just getting by in 2019. There still exists a small pocket for plant names, thank goodness!

It is a challenge, though, for anyone to remain completely conversant and up-to-date with the detail of every aspect of the culture of plants, and the sensible scientifically-based principles and applications that underpin our approach to them. A good reference is therefore invaluable even for the seasoned practitioner. For the new student, or any person embarking on building their understanding of plant propagation and growing, food or crop production, or garden making, the value of a good single-source of information is always high.

While there are clearly many publications under the general heading of 'Plants and Gardens' in our book shops, and countless sources of web-based information of varying reliability, there are remarkably few that set out to communicate the scientific and practical aspects of plants and soils in ways that are so easily understandable. Professor Geoff Dixon's new book *Garden Practices and Their Science* embodies all that this sort of reference should be, and is exactly what the title says it is.

The book presents easy-to-digest information, amply illustrated with photographs and diagrams, from the most basic elements of soils, tools, factors affecting plant flowering and growth, to how the plants actually work in physical and chemical terms. Scattered through the text are plant growing experiments that can be undertaken at home in order to embed and illustrate the theoretical understanding. The terms and processes used throughout the book are not difficult to access or comprehend, and there is a measured amount of good horticultural common sense underpinned by sound scientific rigor.

This would be an ideal reference volume for any student of horticulture, any avid home gardener whether a novice or experienced hand, and for that matter any other person who just wonders about the living world around them, and why things happen with plants the way that they do.

There is an excellent and mildly philosophical 'Tailpiece' chapter entitled 'Successes and Failures' at the end of the book. While highlighting the view that gardening and horticulture are the products of continuous learning processes, there is a delightful analogy that "gardening is to horticulture as the theatre is to literature." We are encouraged to analyse our failures and see them as opportunities to learn, and perhaps one should add, celebrate successes!

I highly recommend this wonderful book to anyone with a thirst for knowledge about growing plants whether as a professional or enthusiastic amateur, or anyone who wishes to nurture and encourage that interest in a friend or family member.

**Richard Barley B.App.Sci (Hort)
MCIHort FLS Director of Horticulture,
Learning & Operations, Royal Botanic
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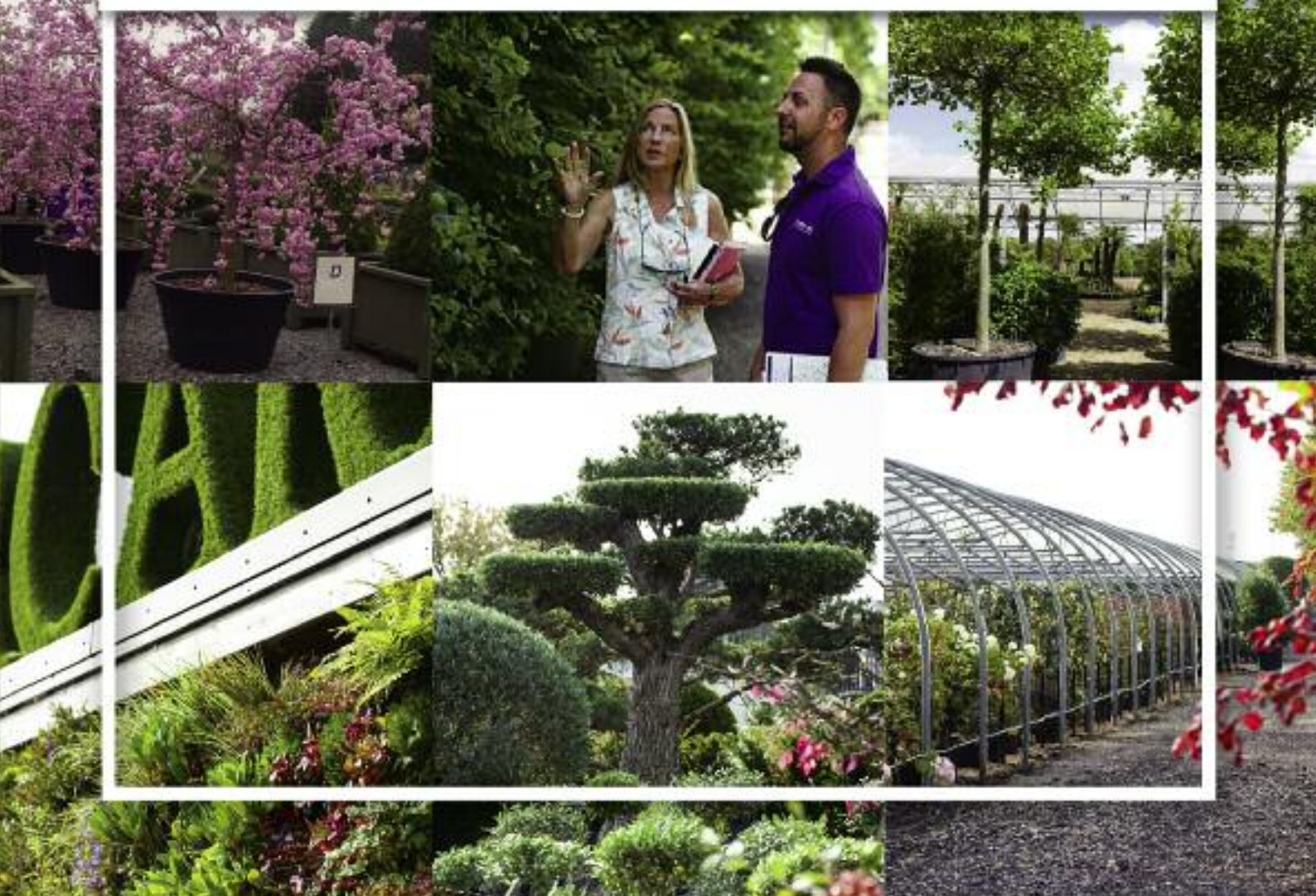
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