

**CONSERVATION HORTICULTURE** The debate about the use of peat in both amateur and professional horticulture continues. **Leigh Morris** tells the story of his journey from being a nurseryman using lots of peat, to now working for The Wildlife Trusts aiming to conserve and restore it.

# Peat: my journey from user to conservationist



There has been a great deal in the media in recent years about the horticultural use of peat in the British Islands and Ireland. On one side – conservationists campaigning for a ban on peat use in horticulture, and on the other – some voices in the horticultural industry making the case that the quality of peat free growing medium is still not good enough and therefore peat use can't be simply 'switched off'.

My horticultural background as a peat user for many years and having now transitioned to be a passionate peat conservationist, puts me in the unusual if not unique position of deep understanding and empathy with both sides of the debate. The peat topic is extremely relevant, interesting and important for me and a recent event has inspired me to add to the debate with my own reflections on my journey from peat user to conservationist.

## Horticultural beginnings

My horticultural career started when I was an apprentice in the 1980s at one of the UK's best plant nurseries, Johnsons of Whixley (Nurseries) Ltd,<sup>1</sup> who continue to be one of the largest growers of ornamental plants in the UK. Johnson's container plant production was all in peat compost, and their website states they are still using peat today, whilst working to transition to alternatives in the future.<sup>2</sup>

I then studied horticulture and nursery plant production at Askham Bryan and Pershore

colleges, spending my sandwich year at another large wholesale nursery, Challis of York, again growing entirely in peat. The use of peat was something that students were taught as 'good practice' and I recall lecturers at both colleges singing peat's virtues, championing why it was such a 'fantastic growing medium to use'.

## Nursery management

After graduating from Pershore College of Horticulture (PCH) I was appointed as their nursery manager and, as one of the leading colleges for teaching commercial horticulture nationally, Pershore's nursery was sizeable, growing both field and container plants. At PCH we used vast amounts of sphagnum peat (and some sedge peat) in potting composts and growing media to produce plants for sale. I inherited a nursery that used lots of peat and I continued that culture, using c.500m<sup>3</sup> of sphagnum peat each year for the production of container grown plants.

One year I re-tendered for a new compost supplier, and companies including Petersfield, Bulrush, Shamrock, and ICI all provided quotes. I was taken by the Shamrock sales rep to see the peat harvesting in the northwest, and the literal mountains of harvested peat, all graded through a 'Star Grader' into various sizes. At the time, I thought this was wonderful, as I could precisely specify the various percentages of the different grades of peat I required in different growing

media, for example, for trees there were significantly courser grades, whereas propagation mixes had much finer grades. We were supplied high quality growing media (peat) from Shamrock, and I regarded this as an ideal arrangement, doing my best to manage the nursery profitably, and demonstrate best industry practice to our students. We grew excellent plants for many years in peat.

## My realisation begins

Looking back on my time at PCH, I was already aware that using peat in growing media was being challenged, but I was also aware that peat was still very much seen as the norm and that early peat-free growing media were regarded as poor for growing – inconsistent (there simply wasn't a sufficient supply of any other suitable organic matter), poorer quality, and much more expensive.

I was managing a plant nursery that had to make a profit and, at the same time, to be an exemplar to our students in terms of the quality of plants grown and showcasing the best industry practices. I also recall that there was strong rhetoric within horticulture along the lines that 'using peat isn't ideal, but we are growing plants that enhance our environment, and so any slight damage to the environment through peat use, is far, far outweighed by the positive contribution the horticulture industry is making overall to the environment and nature by providing living plants'. I believed this, used it to justify the peat we were using, and I know that this view and justifi-





**Far left, left to right:** At Challis of York in 1988: loading a potting machine with a pallet of peat growing media; A compost trial at Johnson's of Whitley in 2008; and Avonbank Nursery's Pershore College Mayer Pot Star with Bulrush growing media recipes posted on the wall. **Left, top to bottom:** WCoH pelargoniums and other high-quality pot and bedding plants grown in peat; WCoH Nursery Supervisor Ian Lea with high quality crops grown in peat; and Leigh Morris (left) with NVQ students at WCoH demonstrating potting with peat. **Below:** Attendees at a Peaterring Out Open Day at WCoH in 2003.

(All images Leigh Morris unless stated otherwise)



cation is still held today by some growers.

I can't remember the exact moment I first heard a strong challenge to using peat in horticultural plant production, but in the very early 1990s I recall attending an evening meeting of the West Midlands Nursery Stock Forum, a knowledge-sharing group for nursery growers, where the topic was the perceived threat to the industry's continued use of peat. I vividly recall the meeting's Chair – also Chairman of Blakedown, another of the UK's largest nurseries, passionately stressing that he couldn't see how the nursery industry could survive if peat was taken away, and the threat was something we all had to fight. I wasn't anti-peat at the time, but I did raise a question on why nurseries couldn't simply adapt and revert to growing plants in soil as nurseries had done in the pre-peat decades. I don't remember the reply.

The drive towards less peat being used in horticulture became more mainstream later in the 1990s and at the Pershore College nursery we undertook trials of various peat-free composts. These early peat-free composts performed poorly compared to sphagnum peat, but on reflection they were never going to do as well. The organic materials available for growing media had challenges, with the green wastes being too heavy (low air-filled porosity – AFP), there was a great variability in nutrient content, and those based on wood fibres had issues, including being difficult to re-wet. Coir (coconut husk fibre), has shown the

greatest promise as a peat alternative, as it is consistent, clean, and can be graded into different sizes. Coir, however, has to be shipped a long way by boat and is more expensive.

The language over the years moved from growing media being peat-free to 'peat reduced', with different organic materials added to reduce the overall percentage of peat used. Today, some of the largest growing media suppliers, including Bulrush, still offer peat-reduced blends, with coir and wood fibre replacing some of the peat.

### National Trust to the fore

One of our PCH customers was a National Trust (NT) property, Hidcote Manor Garden's plant centre. The NT boldly announced that they 'no longer wanted to sell plants grown in peat in their properties', placing them in the vanguard of driving the industry shift away from peat. At the time I remember there was some bemusement in the industry as there simply weren't the quantity or range of plants being produced in peat-free compost to supply their demand.

I'm not clear on exactly how this played out at the time, but I believe the NT had to temporarily pull back from 'no peat'. Nonetheless they certainly drove the agenda and are now completely peat-free, with a clear public statement supporting the ban of peat for horticultural use.<sup>3</sup> Beyond this, the NT communicates to its 5.37 million members why peatlands conservation and peat-free gardening are crucially important, and provides a guide

to peat-free gardening at home.<sup>4</sup> The NT has been at the vanguard of driving the peat-free agenda for many years now and should be applauded for that.

### Experiments in Wales

I left Pershore College in 1998 and became a lecturer and subsequently Head of Horticulture at the Welsh College of Horticulture (WCoH). WCoH had an extensive commercial nursery (glasshouse and hardy nursery stock) and grew a range of nursery stock, bedding, pot plants, and propagated chrysanthemums – all in peat-based media.

During my time in Wales, my journey towards being a peat conservationist continued, as WCoH partnered Bangor University to carry out a series of trials in our nursery of peat-free and peat-reduced growing media mixes. I recall us holding a 'Peaterring Out' knowledge transfer event for Welsh growers at the college in 2003, in conjunction with the Waste and Resources Action Programme (WRAP). Back in 2003, WRAP was a peat reduction champion, and 20 or more years on continue to pursue this aim – championing the creation and use of peat-free compost to reduce peat use, while recognising that peat-free or peat-reduced media in commercial horticulture remains challenging.<sup>5</sup>

### Botanic garden horticulture

From WCoH I moved in 2004 into the botanical garden world, joining the Royal Botanic Garden





**Left:** Volunteers working with Manx Wildlife Trust to survey the depth of the remaining peat in the Isle of Man uplands.

**Below:** The cover of the *National Trust Guide to Peat-free Gardening*.

**Bottom:** The Manx Peat Partnership logo.

**Right:** Sarah Hickey of the IOM Government planting nursery-raised sphagnum moss to regenerate a peat bog.

**Below right:** Clear labelling to show the peat percentage in products available in the retail horticulture market should be standard.

**Bottom far right:** Members of the IOM Civil Defence Team volunteering on a peat restoration project.

## Guide to peat-free gardening



Edinburgh (RBGE) as Head of the School of Horticulture then latterly Associate Director of Learning. At RBGE and at several other botanic gardens I worked with around the world I was immersed in conservation horticulture, where the primary aim was to grow plants for *ex-situ* conservation, research and education, not for sale. As conservation organisations, RBGE and other botanic gardens were some of the first to move towards being peat-free. RBGE have had a peat reduction policy since 1991<sup>6</sup> in their nursery and gardens, and, pleasingly, they now state they are completely peat free in their horticultural and plant conservation operations.

### Joining the Wildlife Trusts

My career subsequently developed in much more of a conservation direction, and some years later in January 2020 I joined Manx Wildlife Trust (MWT) in the Isle of Man as their Chief Executive Officer. Since then I have been immersed in peat conservation and restoration work, aligning with the federation of The Wildlife Trusts (TWT) and wider conservation sector who strongly champion the ban of peat use in UK horticulture. Peat is regarded as a precious commodity providing an important habitat for biodiversity, and nature-based solutions, in the form of being a major carbon sink and, acting as a sponge during

periods of high rainfall, so reducing the risk of flooding down stream.

Peat is regarded by TWT as a crucial part of the fight to reduce climate change and biodiversity loss, and therefore the conservation and restoration of our Isle of Man peatlands is a crucially important issue, in terms of our Island landscape, flood risk reduction, habitats, and carbon sequestration. At MWT I inherited a peat conservation and restoration programme and the last five years have been an education for me. One of our conservation officers, Sarah Hickey, was focused upon baseline surveying of the Island's upland peat, and in partnership with the Isle of Man Government and some upland farmers, carrying out the first peat restoration work. This included trials of planting sphagnum moss to restore areas where peat formation had ceased.

In subsequent years the Island has expanded peat conservation work, led by Sarah now working for the IOM Government as the Islands Peatland and Upland Carbon Officer. We still collaborate closely, with MWT a key part of the Manx Peat Partnership, to deliver our Peatland Restoration Project,<sup>7</sup> which forms part of the IUCN Peatland Programme.<sup>8</sup>

MWT are involved in several community gardening projects, and operate a plant nursery in partnership with Milntown gardens for the produc-

tion of trees. In all our horticultural work we have drawn the line firmly that we will not use peat, even though I believe the quality of our trees is certainly not as good as it would be if we did. Thankfully we are in the position of being the end user, so 'good enough' is acceptable for our trees, but I wouldn't want to compete with a nursery still using peat.

### Current situation in horticulture

This summer I visited Kirby Garden Centre in the Isle of Man to buy products to show students on our MWT Wildlife Gardening Certificate course.<sup>9</sup> I was delighted to see a good range of peat free media, however, while I was expecting to see some peat-based composts on sale, I was amazed/shocked to find that the word 'peat' was nowhere on the bags of some of the peat-based media being sold – not even in the smallest print. The fact they are peat-based is being completely hidden from the public by the compost manufacturers, preventing them choosing products that are better for our environment.

The Royal Horticultural Society (RHS), who set the UK standard for amateur gardeners, have made good progress in significantly reducing their peat use.<sup>10</sup> However, some peat is still used in their gardens, by exhibitors at their shows, and by some plant suppliers to their retail outlets. The RHS have stated that they will be 100% peat free





in all their operations by the end of 2025<sup>11</sup> and I see this as a crucial step.

The Horticultural Trades Association (HTA) is the main trade body representing commercial growers and garden centres, and their current position is one of disappointment that the UK Government (DEFRA) has brought forward peat removal from commercial horticulture to 2026.<sup>12</sup> A key issue for UK commercial horticulture is that it is not a level playing field with Continental competitors, including the Netherlands, the world leaders in horticultural production, yet (disappointingly) still seeing peat as an important part of their industry for years to come.

### The pace of change

With what I have learnt over the last decade, I am now in no doubt that peat must be cherished and conserved, as a critical part of nature-based solutions to address climate change and protect biodiversity. I believe there is absolutely no excuse for using peat in amateur horticulture and private gardens, as peat-free composts are definitely now of sufficient quality, and amateur gardeners should no longer have the option of using peat. Peat use in private gardens must therefore be banned quickly, and in the lead up to this being enacted retailers owe a duty of care to customers and our planet and should provide clear labelling

to make customers aware if current options contain peat, thus enabling them to choose peat-free options. I hope the RHS becomes 100% peat-free quickly, and that this is then widely promoted to set as a benchmark for all amateur gardeners.

I used a great deal of peat in my earlier career as a nurseryman and engaged widely with commercial producers later in my career as President of the Chartered Institute of Horticulture, so I empathise strongly with the British professional horticultural sector who request for peat to still be used in commercial horticulture for a transition period. The current proposal is a ban in 2026 (with limited exemptions) and a total ban by 2030. We must move to a complete ban on peat as soon as possible. However, if British growers are banned from using peat, then I believe this should be accompanied by a complete ban, or fair import tariffs on imported crops produced using peat. Without such parity with European competitors there would be a significant negative impact on the UK horticulture and food retail sectors, which we must aim to avoid.

Despite the research and development undertaken by the Agriculture and Horticulture Development Board (AHDB) and others into peat alternatives over the last 35 or more years, my understanding is that peat-free media does not (yet) provide the same high quality and consistency

for crop production to effectively compete with European peat grown imports. It could be argued, however, that more could and should have been done to advocate for and develop better sustainable peat-free alternatives over the last 35-plus years – and the pace of transition certainly needs to quicken. I believe we should be aiming for a ban in advance of 2030, but the industry needs more support to achieve this.

My journey from nurseryman to conservationist has been enlightening. Peat is wonderful stuff, but it is a commodity that we all must cherish and leave in the ground, and do all we can to conserve, and where necessary, restore it. From my engagement with corporate businesses as part of my current role, I see great opportunity to link this critical agenda to the corporate drive towards Environmental Social Governance (ESG) – and perhaps green financing could support the horticultural sector in its transition. Whatever the pathway, all horticulturists need to get behind this, do our bit, work with conservationists, and drive the change to zero peat use as quickly as we can. Horticulture is fundamentally a green industry, let's stop kicking the can down the road, and demonstrate by ceasing to use peat completely, how truly green we are. ●

### Footnotes

1. [www.johnsonsnurseries.co.uk](http://www.johnsonsnurseries.co.uk)
2. [www.johnsonsnurseries.co.uk/frequently-asked-questions/are-your-plants-peat-free](http://www.johnsonsnurseries.co.uk/frequently-asked-questions/are-your-plants-peat-free)
3. [www.nationaltrust.org.uk/who-we-are/about-us/horticultural-peat-joint-statement](http://www.nationaltrust.org.uk/who-we-are/about-us/horticultural-peat-joint-statement)
4. [www.nationaltrust.org.uk/discover/gardening-tips/guide-to-peat-free-gardening](http://www.nationaltrust.org.uk/discover/gardening-tips/guide-to-peat-free-gardening)
5. [www.wrap.ngo/resources/guide/compost-production-use-growing-media-good-practice-guide#download-file](http://www.wrap.ngo/resources/guide/compost-production-use-growing-media-good-practice-guide#download-file)
6. [www.rbge.org.uk/about-us/sustainability/looking-after-our-plants/#peat](http://www.rbge.org.uk/about-us/sustainability/looking-after-our-plants/#peat)
7. [www.biosphere.im/news/peatland-restoration-project](http://www.biosphere.im/news/peatland-restoration-project)
8. [www.iucn-uk-peatlandprogramme.org/projects/manx-peatland-project](http://www.iucn-uk-peatlandprogramme.org/projects/manx-peatland-project)
9. [www.mwt.im/wildlife-gardening-course-2024](http://www.mwt.im/wildlife-gardening-course-2024)
10. [www.rhs.org.uk/about-us/what-we-do/policies/rhs-statement-on-peat](http://www.rhs.org.uk/about-us/what-we-do/policies/rhs-statement-on-peat)
11. [www.rhs.org.uk/advice/peat/rhs-peat-free](http://www.rhs.org.uk/advice/peat/rhs-peat-free)
12. [www.hta.org.uk/peat](http://www.hta.org.uk/peat)

### Leigh Morris MSc CHort FCIHort

Leigh began his career in nurseries, serving an apprenticeship at Johnsons of Whitley and then as Nursery Manager at Pershore College, before then moving into horticulture education at the Welsh College of Horticulture. He gained an MSc in International Horticulture, before ten years at the Royal Botanic Garden Edinburgh (RBGE) as Head of the School of Horticulture and later Associate Director responsible for RBGE's wider engagement and learning portfolio. Leigh chaired the Grow Careers initiative through its set-up and establishment, was the Scottish Secretary for the International Plant Propagators Society and is a past-President of the CIH (2012-14). His career developed a wider conservation focus, as a Trustee of the Marine Conservation Society and Director of Community Conservation at the Royal Zoological Society of Scotland. Leigh has spent the last seven years on islands, with two years on St Helena in the South Atlantic (2018-19), delivering environmental consultancy for the St Helena Government. In January 2020 he commenced working for The Wildlife Trusts (TWT) as the CEO of Manx Wildlife Trust in the Isle of Man, and in June 2025 he starts a new role as Director, International Nature & Climate for the central TWT team. Leigh has been on the Council of the UK Overseas Territories Conservation Forum since 2022.

