

Horticulture and peatlands

A discussion briefing for Scotland's National Peatland Plan Steering Group

Introduction

Commercial mining of peat for the garden retail and professional horticulture industry continues to impact on peatlands, particularly lowland raised bogs. Advances have been made in the development of non-peat based products for use across a range of horticultural applications. A legacy of long standing consents for peat extraction and the high costs involved in revoking these has seen greater reliance on measures to encourage reductions in peat use through awareness-raising. Whilst there has been a recent increase in the sales of peat-free or low peat products, the total volume of peat extracted remains high, with new planning applications still coming forward.

The threat to rare lowland peatland habitats and species as well as the costs to society from the loss of peatland services such as carbon and water makes a strong case for ending the use of peat. A combination of regulatory measures, awareness raising and fiscal incentives will be required if Scotland is to find an affordable solution to protecting its peatland natural capital. This will have the added benefit of promoting a new, long-term industry in Scotland, providing sustainable soil conditioners and growing materials for amateur and professional gardeners.

Proposals for the NPG:

- 1) Gather evidence from local authorities of existing planning permissions and any new permission granted in the last five years.
- 2) Ask local authorities to provide after-use conditions for all extent permissions
- 3) Hold a seminar to explore:
 - i. Fiscal and regulatory powers available to Scottish Government to tackle the price differential between peat and peat free products and encourage alternatives.
 - ii. Opportunities for communicating the benefits of phasing out peat.
- 4) Provide an agreed method for assessing the full carbon cost of peat extraction based on IPCC values and DECC research.

Commercial peat extraction

Commercial extraction (mining) of peat for use as a growing media or soil conditioner has developed over the last 50 years, replacing traditional loam and leaf mould based composts. The industry mainly removes peat from lowland raised bogs because of their deep peat layer, developed over millennia and their relatively good accessibility for heavy machinery.

Lowland raised bogs are an internationally rare type of peatland, which cover 30,000ha in Scotland (largely in the central belt, southern uplands and east coast of Scotland) with only 2,500ha in a near natural condition¹.

The Scottish Government does not hold up-to-date information on peat extraction planning permissions. Earlier data shows that in 2003 there were 72 commercial extraction sites in Scotland with 20 still active, 16 expired and 33 awaiting confirmation²³. Current Scottish planning policy only permits commercial extraction in areas suffering historic, significant damage through human activity and where the conservation value is low and restoration is impossible. Despite the fact that most damaged peatlands are capable of being restored, developers have continued to seek new permissions or extensions to existing permissions. Since 2005 there have been new planning applications for extraction on 15 peatland sites in Scotland (See Annex 1). Minerals permissions periods are lengthy and, in the case of peat, poorly regulated e.g. cases of lapsed permissions where peat has continued to be extracted for 13 years post expiry of permissions (see Moy Moss, Annex 1). Few peatland sites have formal planning agreements to restore the peatlands and many have been abandoned in their degraded state⁴.

In England, there have been a number of recent examples (e.g. Bolton Fell, Wedholme Flow and Humberhead Peatlands) where peat extraction rights of the largest peat producing company have been bought out by the Government in order to halt extraction and commence early restoration. These cases resulted in compensation payments of several £million.

Impact of peat extraction

Commercial peat mining involves the stripping of peat forming vegetation, drainage and extraction of the upper peat layers: see IUCN UK PP briefing^{5 6}. This combination of activities can result in damaging impacts to biodiversity, water quality and carbon emissions. The published data on carbon from peat extraction suggest around 0.1 million tonnes CO₂e each year in Scotland. However this represents less than half the actual carbon loss as the figures deal only with the emissions arising from the extracted and bagged peat. The loss of carbon sequestration, the emissions from the drained, bare peat surface, the extraction process and storage of peat prior to bagging are not currently accounted for.

¹http://scottishwildlifetrust.org.uk/docs/002_057_restorationoflowlandraisedbogsinscotland_jan2013_1359568030.pdf

² Brooks, S. (2003) Commercial Peat Extraction in Scotland. Draft report for Scottish Natural Heritage, Scotland.

³ The 'Corporate watch' spreadsheet is useful but is becoming out of date.
https://corporatewatch.org/sites/default/files/peat_extraction_sites.pdf

⁵ <http://www.iucn-uk-peatlandprogramme.org/resources/peatbogs-and-carbon-critical-synthesis>

⁶ <http://www.iucn-uk-peatlandprogramme.org/sites/www.iucn-uk-peatlandprogramme.org/files/6%20Commercial%20peat%20extraction%20-%205th%20November%202014.pdf>

UK targets to end peat use

Environmental concerns about peat extraction have led to calls for a halt on commercial activity⁷. There are now many alternatives to peat composts, including some high profile brand names, already widely available in garden centres across the UK. Today, many peat-free composts work as effectively as peat ones across a wide range of applications. Much of the material used for peat replacement also contributes to recycling, such as commercial green compost, or uses by-products, including wood brush and other forestry waste. Advances are also being made in more technical applications such as the commercial growing of plants with B&Q announcing a peat-free bedding plant range.

In 2010 Defra set out proposals, now adopted by the UK Government, for retail supplies in England to be peat free by 2020 and for commercial horticulture to end peat use by 2030, although advances in commercial peat-free products should mean this target could be brought forward. Unfortunately UK Government figures for 2012 show that 57% of compost sold in the UK is still peat based and that there has been little reduction in peat use.

Peat extraction - the most recent DCLG '[Mineral extraction in Great Britain](#)' report (2014)⁸ shows:

- 0.5 million cubic metres of peat was commercially extracted in Scotland in 2014 = 63% of peat extracted from the UK as a whole (0.8 million m³)
- The majority of Scotland's peat (0.47 million m³) was for horticultural use and the rest for 'other' uses e.g. animal bedding, fuel, whisky production
- Around 7500 ha of peatland are commercially extracted in the UK
- Employment in 2014: Scotland 142 employees (85 direct⁹), England 93 employees (84 direct). Seven contractors were also employed in the industry in Scotland and one contractor in England
- HTA figures suggest that peat extraction is decreasing but this can largely be attributed to a 34% slump in extraction rates in 2012 due to wet weather.

Sales of horticultural peat

- Most of the UK's 2.2million m³ horticultural peat consumption is imported from Ireland
- Defra figures show peat use is up¹⁰
- Latest Defra figures (2014) show that in the **amateur market**, the use of peat products and peat-free alternatives have approximately a 50:50 market share (Peat= 1.4 million m³ vs Peat-free= 1.3 million m³)

⁷ <http://www.bbc.co.uk/news/uk-25760294>

⁸ '[Mineral extraction in Great Britain](#)' DCLG 2014

⁹ No definition to distinguish 'employment' from 'direct employment' was given

¹⁰ <http://www.hortweek.com/defra-figures-show-peat-use/retail/article/1376657>

- In the professional market (growers, landscaping and local authority use) peat is dominant. This drives the overall figures for peat use in all UK (amateur and professional) to be 2.1 million m³ peat (55%) vs 1.7 million m³ peat-free (45%).

The limited progress in ending peat use demonstrates the need for targets to be accompanied by more firm measures. The price of peat is often lower than that of the alternatives and does not reflect the environmental damage costs of peat extraction. Consumers and manufacturers therefore have little incentive to make the switch away from peat, even where viable and effective alternative products exist. While some technically demanding applications exist in the commercial horticulture world, much of the industry is using peat in low demanding situations where viable and even better alternatives exist.

Much of the UK's peat is imported mainly from Ireland, from already worked out bogs. Despite manufacturer's claims of these being environmentally friendly sources¹¹, they are clearly not sustainable as the resource is depleted. Continued extraction also delays the restoration and rewetting of the peatland site and has a wider effect of maintaining cheap peat supplies that don't reflect the environmental cost and undermine sales of alternatives and investment in developing new products. Measures are therefore required not just to prevent Scottish peat extraction but also tackle imported supplies of cheap peat.

Opportunities for Sustainable Horticulture

With Scotland as a world leader in peatland conservation policy, there is an urgent need to demonstrate firm commitments to removing peat from retail sales and commercial horticulture. This is important to help protect rare wildlife habitat and reduce carbon emissions, but is also essential to placing Scotland's gardening retail and horticulture industry on a secure long-term basis. International policy is moving increasingly towards more sustainable products, through eco-labelling and demands on producers to bear the environmental costs of their activities. Supporting an early switch to peat-free products would place Scotland in a better position to meet the environmentally responsible demands of society. There are already a number of manufacturers of peat-free soil conditioners and growing media in Scotland and given the right market signals to facilitate a shift away from peat there is opportunity for expanding employment. At the same time this will contribute to delivery of recycling and waste reduction targets through increased use of peat-free products.

Sphagnum farming to provide a peat alternative is being investigated on worked out bogs in Europe and early results suggest quality products can be harvested and bring carbon as well as wildlife benefits¹².

¹¹ <http://www.amateurgardening.com/top-tips/compost-top-tips/thompson-morgan-launch-high-peat-compost-10250>

¹² <http://www.iucn-uk-peatlandprogramme.org/peatland-gateway/gateway/case-study/sphagnum-farming-paludiculture-degraded-bogs-germany>

Recent news from trade bodies

- B&Q have made a 50% reduction in the peat used to grow their bedding plants by introducing coir from a sustainable project managed in Sri Lanka. See video <http://www.diy.com/easygrow>
- The HTA environmental impact calculator: The Horticultural Trades Association is piloting a responsible sourcing scheme (launched June 2016): *“the scheme will enable those manufacturers wishing to participate, the ability to measure the components that make up particular products, enter those results into a calculator, which will then inform the manufacturer of their environmental impact.”* <https://hta.org.uk/news/growing-media-responsible-sourcing-scheme.html>
- The introduction of the Eco-label certification permitted for peat-free products http://ec.europa.eu/environment/ecolabel/documents/soil_improvers.pdf

Remaining barriers to sustainable alternatives

- Recent discussion in parliament re: soft fruit production in Angus highlights barriers to reducing peat use:
 - Peat allows for less intensive management *“peat’s ability to buffer water and nutrients allows for a larger margin of error and easier management”*
 - However, when financial incentives are available, sustainable alternatives become more attractive e.g. imported Sri Lankan coir is c.30% more expensive than peat: *“incentive funding for half of the difference in cost has been available to producer organisations through the fresh fruit and vegetable scheme, Angus Growers has begun using coir rather than peat.”*
 - *“Growing techniques and crop nutrition have had to be adapted to maintain production, which has been possible only with Angus growers in-house team of agronomists carrying out many trials across many crops. Of course, that takes time.”*

Other barriers remaining include:

- Concerns about pests and disease with wood based products or imported products
- Lack of product consistency from green waste products
- Remaining lack of consumer confidence in peat alternatives: still a public awareness job to be done
- Overly complex and inconsistent labelling of growing media products (common labelling standards?)
- Perceived lack of leadership from public sector procurement and some conservation bodies (e.g. Royal Botanic Garden selling peat compost in its shops)
- Financial burden of change currently falls upon industry (e.g. research, infrastructure)
- Competing demands for alternatives (e.g. renewable energy sector for wood fibre)

A number of organisations have identified solutions to deliver the UK's targets for phasing out peat including:

- Establish legally binding targets for an end to peat in retail sales of growing media/soil conditioners and commercial horticulture
- Introduce full carbon accounting for use of peat based products
- An immediate end to the procurement of peat by Government and Public bodies
- Introduce fiscal measures (tax relief and other incentives) to support the development of sustainable peat-free products
- Scottish Ministers to be informed of all development planning proposals for commercial peat extraction
- Bi-annual Scottish Government reporting on progress towards targets.

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