Ending the Sale of Peat in Scotland

Analysis of Consultation Responses

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Scottish Government
Riaghaltas na h-Alba

Contents

Executive Summary

A public consultation ran from 17 February to 12 May 2023 to gather views on proposals for ending the sale of peat in Scotland. In total, 552 consultation responses were received from 469 individuals and 83 organisations. The largest number of respondents were individual hobby gardeners (61%). This was followed by respondents representing organisations including professional gardeners and commercial growers (5%), environmental organisations (4%), retail plant sales organisations (2%), growing media producers (2%) and the whisky industry (1%).

Use of peat

Just over one quarter of all respondents (27%) stated that they do not, or no longer, use peat. Among those who do and answered the question, the most common use of peat was amateur gardening (59%), followed by heating with 17% extracting their own peat and 14% buying peat for fuel. These percentages were driven by individuals. Almost half of organisations who responded use peat to grow ornamentals (29%) or fruit and vegetables (19%), and a further 16% in professional gardening. One quarter (26%) sell peat or products containing peat in their retail outlets, and 17% use it in food and drink production, specifically whisky.

One third of those who answered[1] (33%) stated that peat alternatives are readily available and clearly labelled in their local retail outlets. However, some described it as challenging to find peat-free alternatives, citing limited stock and choice at local outlets or inconsistent provision across different stores. Several respondents said they had not tried to find peat-free alternatives before because they only use homemade compost or peat-based products.

Almost nine in ten (88%) respondents felt environmental considerations were either very important or important to their choice of growing media. Performance was far more likely to be very important for organisations (78%) than individuals (29%), particularly organisations in retail plant sales (91%) and growing media (86%).

Labelling of horticultural products

Three fifths (58%) stated that they are provided with sufficient information on growing media packaging or signage about whether growing media contains peat. A lower proportion (28%) stated they had sufficient information about the environmental impact of the contents of the growing media.

The vast majority of respondents (90%) felt there should be more information about the growing medium present in potted plants, either to help them make an informed decision (38%) or to avoid buying plants in peat (52%). Many described labels as lacking in information, accuracy or clarity. Potted plants were seen as particularly poorly labelled, with many respondents noting they often find it difficult to decipher which materials or

[1] This and all subsequent percentages in the Executive Summary are based on the respondents who answered each question.

ingredients are present. A few raised concerns that packaging can be deliberately misleading to conceal the presence of peat.

Challenges in indicating whether or not peat is present in growing medium within pots were raised by several respondents. These included logistical issues, such as additional costs and resources that would be incurred, including time, resources, and printing and labelling facilities and materials. Others focussed on difficulties in determining whether or not peat has been used in products due to a lack of transparency in the supply chain.

Moving away from using peat

Over two thirds (69%) stated they could stop using peat now, and 31% stated they could not. The ability to stop using peat was very mixed by respondent type. Individuals were far more likely than organisations to say they could stop (74% compared to 43% respectively), with many hobby gardeners (90%) indicating they had already moved away from using peat. Retail plant sale organisations were relatively evenly split, with 42% able to stop and 58% unable. However, growing media and whisky organisations held firm views, with 75% of the former and all of the latter stating they could not stop peat use.

Many respondents stated they could not stop using peat as it was essential to their business or personal use, or would stop only if alternatives were available. The two main reasons why respondents felt they could not stop using peat were the availability of alternatives (60%) and the cost implications (56%). Environmental and whisky organisations did not raise cost as an issue.

The performance of peat compared to alternatives was a key consideration alongside availability and cost for 73% of professional gardeners / commercial growers and all growing media organisations. Growing media alternatives were generally considered higher cost, lower quality, and of variable consistency. Respondents described how moving to the use of alternatives required significant investment in research and development and new machinery.

Whilst 89% of individuals, including 92% of hobby gardeners, felt peat was not needed for propagation, this reduced to 51% amongst organisations. These organisations highlighted plants that they deemed to require peat for successful and healthy growth, and argued that peat makes growing easier and yields better success rates, meaning a ban on the commercial sale of peat may significantly impact businesses and the mass production of ornamentals, fruit and vegetables. As a result, there were calls for improvements to the quality of peat-free alternatives and consideration of their commercial viability and environmental impact before implementing a ban on the sale of peat.

Some respondents outlined when they could realistically stop using peat, though others suggested it was impossible to predict a date, due to a lack of knowledge about when alternatives would be available. A few mentioned, in order of prevalence: between 2030 and 2050; by 2030; 2024; 2023; 2025; and 2026. Some other respondents argued that the use of peat should stop immediately. Organisations involved in professional horticulture preferred a later start date of 2028-2030 to give time for the sector to find suitable replacements, upscale delivery and purchase new equipment.

Overall, three fifths (62%) indicated that there should be a ban on all/most peat sales, with a further 12% supporting a ban on all horticultural peat sales. One in five (19%) disagreed. A majority of both individuals and organisations were in favour of some form of ban, though organisations were less firm in their views. 65% of individuals and 47% of organisations stated there should be a ban on all/most peat sales, with 18% and 29%, respectively, stating there should be no ban.

The highest support for a ban on all/most sales was among environmental organisations (80%) and hobby gardeners (76%). Over half (58%) of professional gardeners / commercial growers favoured this option, as did 50% of retail plant sales organisations. The whisky industry was most likely to be suggested as an industry to exempt, though others felt professional growers dependent on peat should also be exempt. Some argued for a transition period to give time to become ready for the ban, whilst others preferred a voluntary approach instead.

Economic impact on individuals and businesses

Over four fifths (83%) of organisations indicated they would be impacted by a ban on the sale of peat; one quarter (26%) would be positively impacted, and 57% negatively impacted. Positive impacts were more likely to be anticipated by environmental organisations (57%) and retail plant sales organisations (42%), though half (50%) of the latter group indicated they would be negatively impacted. All whisky organisations and 88% of growing media organisations anticipated negative impacts.

The risk to horticultural businesses was largely attributed to:

- Supply chain issues including more limited stock of both growing media and plants.
- Increased costs associated with sourcing and assessing the quality of -alternative growing media and higher prices for alternatives.
- Reduced productivity due to crop failure or poor-quality plants, i.e. if plants did not grow using alternatives. Some also highlighted that the cost of plants would rise if a ban were introduced due to increased expenditure associated with researching, developing and purchasing peat-free alternatives and the impact of poor growth.
- Reduced sales of plants and growing media, reduced product availability with demand outstripping supply, and reduced profit margins.
- A few also highlighted that alternatives or imported peat could introduce plant diseases to the supply chain.

The potential closure of businesses was mentioned by several, should they be directly affected by a peat sales ban. While most of these respondents did not provide details, a few suggested it could affect peat sellers, compost manufacturers, and whisky distilleries.

Whisky organisations highlighted that a ban on the sale of peat would mean they are unable to make whisky using peated malted barley, which would result in the closure of distilleries with a loss of jobs in remote rural communities. Many respondents argued that the whisky industry should be exempt from a ban, with the lack of an alternative to peat highlighted as a particular challenge for the industry. Other reasons included that peat use for whisky is a small proportion of total peat usage and the potential negative impact on Scotland’s economy.

Those reliant on peat as fuel in rural or island areas also highlighted challenges in transitioning away from peat due to a lack of suitable alternatives or the cost of replacement heating systems. Many argued that a ban on peat sales for fuel, limiting the availability of peat for domestic use, could exacerbate fuel poverty.

However, some felt there would be positive impacts on businesses and consumers from a ban. These included an increased choice of peat-free alternatives or opportunities to use healthy peatlands.

Environmental considerations and impacts

The vast majority of respondents - 91% of individuals and 97% of organisations - stated that they consider environmental impacts when using peat. Many mentioned the role peat has in storing carbon and the negative outcomes of cutting peat. Many others commented on the role peatland plays in maintaining biodiversity in Scotland, and the positive impact restoring peatland would have for wildlife. Preservation of natural heritage and landscapes, and concerns about the degradation of peatlands, were also themes mentioned by many.

Potential positive environmental outcomes of a ban included better protection for peatlands and more peatland restoration, increased carbon storage, improved biodiversity and flood reduction. Conversely, a commonly cited negative impact could be the environmental impact of transporting or using alternatives, including the carbon footprint of transportation, the possibility of introducing pests and diseases from using coir or alternative growing media, and the use of fuels with a worse environmental footprint in rural and island communities.

1. Introduction

Background

Scotland's peatlands store around 1.8 billion tonnes of carbon, which equates to around 140 years' worth of Scotland's total net emissions in 2021 (41.6 mtCO2e).

In good condition, they are a significant natural carbon store and also benefit the environment and Scotland's communities by supporting unique habitats and biodiversity, improving water quality and reducing downstream flood risk. Only when in a favourable condition can peatlands effectively deliver these benefits.

Peatland is considered central to Scotland's future net-zero economy because of its capacity to store huge volumes of carbon. Conversely, peat extraction releases carbon dioxide into the atmosphere, contributing to global warming. Once disturbed, peatlands can take hundreds of years to re-form. If peatlands are in poor condition, the benefits are lost, and peatlands become a source of carbon emissions.

Peat is also evident in Scotland's cultural heritage, particularly in rural and Highland communities, and contributes to important industries such as fuel and whisky. Peatland restoration plays a role in providing employment and supporting thriving rural economies.

Scotland's fourth National Planning Framework has introduced a new national planning policy whereby proposals for new commercial peat extraction, including extensions to existing sites, are not supported except in very limited circumstances. In its 2021-22 Programme for Government, the Scottish Government committed to phasing out peat use in horticulture and is developing a policy on banning the sale of peat-related gardening products. While horticulture is the main user, all uses of peat are being considered in policy development. A ban on the sale of peat could be introduced in stages, beginning with retail to amateur gardeners, and widening to professional horticulture, potentially with some time-limited exemptions.

A public consultation ran from 17 February to 12 May 2023 to gather views on proposals for ending the sale of peat[2]. The consultation contains 15 closed questions, of which 13 included space for respondents to leave an open comment, and a further 13 open questions. The questions covered respondents' use of peat, their understanding of the labelling of horticultural products, how easy it will be for respondents to move away from using peat, and the positive and negative impact of banning the sale of peat.

Respondent profile

In total, 552 consultation responses were received[3]. Almost all were submitted via the Citizen Space online consultation platform, with nine provided in an alternative format, for example, an email or PDF document, which was reviewed separately by analysts.

A total of 469 individuals and 83 organisations responded to the consultation. The largest number of respondents were individual hobby gardeners (337), but organisations included

[2] https://consult.gov.scot/environment-forestry/ending-the-sale-of-peat/ (Consultation Link)

[3] Six duplicate responses were removed during the data checking process.

professional gardeners and commercial growers (29), environmental organisations (20), retail plant sales organisations (13), growing media producers (9) and the whisky industry (9). More information on the profile of respondents and their use of peat is provided in Chapter 2.

Analysis approach

The Lines Between was commissioned to provide a robust, independent analysis of the responses to the public consultation. The main purpose of analysis is not to quantify how many people held particular views, but to understand the full range of views expressed. This report provides a thematic analysis of responses using the approach outlined below.

Quantitative analysis

There were 15 closed consultation questions. As not all respondents answered each closed question, in most cases we present the number and percentage response among those who answered the question, broken down by individual and organisation responses. Figures may not add to 100% due to rounding.

A full breakdown of the number and percentage response to each question, including a breakdown by respondent type, can be found in Appendix A.

Qualitative analysis

The qualitative analysis outlines the key themes identified in responses to each question. The analyst team coded responses against a framework which was developed based on a review of the consultation questions and a sample of responses. Through an iterative coding process, new codes were created if additional themes emerged.

In a small number of instances where alternative format responses contained information that did not align with specific questions, analysts exercised judgement about the most relevant place to include this material for analysis purposes.

Where appropriate, quotes are included to illustrate key points and provide useful examples, insights and contextual information.

Reflecting the large number of people who took part, it is not possible to detail every response in this report; a few organisations shared lengthy submissions which reflect their specific subject matter expertise. These responses are referenced where relevant. Full responses to the consultation, where permission for publication was granted, can be found on the Scottish Government's website[4].

When reviewing the analysis in this report, we ask the reader to consider:

- Public consultation of this kind means anyone can express their views; individuals and organisations interested in the topic are more likely to respond than those without a direct or known interest. This self-selection means the views of respondents do not necessarily represent the views of the entire population.

[4] https://consult.gov.scot/environment-forestry/ending-the-sale-of-peat/consultation/published_select_respondent (Consultation Published responses)

- Some respondents repeatedly raised the same issues or suggestions at multiple questions, regardless of the specific focus of the question. These views are all included in this report, but analysts exercised judgement about the most relevant place to include each theme to avoid repetition.
- It is possible that some respondents have not fully read or engaged with the consultation paper, leading to answers which do not directly address the questions. These answers have been noted in the report.
- A few questions were targeted at certain groups, for example, growers or retailers. However, as questions were open to all, some respondents, including individuals, also answered the questions. Unless noted otherwise, we present the results based on all who answered each question rather than assume individuals were not able to answer from the perspective of a business experience, for which they have chosen not to share their full details or circumstances.
- A total of 55 respondents indicated that they use peat for domestic fuel. While some indicated they cut their own peat, others bought it, and a small number used both sources. The focus of this analysis is a ban on the sale of peat, rather than the use of peat. Those with cutting rights would not be affected by the proposals unless they offered their peat for sale. However, some did comment on fuel use amongst Crofters with cutting rights, and their views have been included in this report.

Weight of opinion

Throughout this report, the themes identified in responses are listed from most to least commonly mentioned.

Qualitative analysis of open-ended questions does not permit the quantification of results; an insightful view expressed by a very small number of participants is not given less weight than more general comments shared by a majority. However, to assist the reader in interpreting the findings, a framework is used to convey the most to least commonly identified themes in responses to each question:

- The most common / second most common theme; the most frequently identified.
- Many respondents; more than 20, another prevalent theme.
- Several respondents; 10-19, a recurring theme.
- Some respondents; 5-9, another theme.
- A few / a small number of respondents; <5, a less commonly mentioned theme.
- Two/one respondents; a singular comment or a view identified in two responses.

2. About respondents and their use of peat

This chapter explains more about who responded to the consultation and how they use peat, particularly in the context of horticulture.

Respondent profile

The consultation and Respondent Information Form asked multiple questions to gather information about respondents. These included whether they were an individual or organisation, the name of their organisation, how they would categorise themselves or their organisation (Q1), and what their business sells, produces or grows (Q2).

As there was overlap across these questions, analysts created a single classification to ensure the sub-group analysis was conducted and presented consistently. The classification was based on the information provided by respondents to these questions and approved by the Scottish Government.

The table below details the number of respondents within each category and the percentage of the total sample each category represents. The 'Professional gardener / commercial grower' category includes individuals and organisations.

Table 1: Respondent classification

Base	N=	% of total sample
All respondents	552	100
Individual - Hobby / Private Gardener	337	61
Individual - Peat extractor / fuel for domestic use	55	10
Individual – Other	64	12
Professional gardener / commercial grower	29	5
Organisation – Environmental NGO	20	4
Organisation - Retail plant sales	13	2
Organisation - Growing Media	9	2
Organisation - Whisky	8	1
Organisation - Other	17	3

Some organisations were trade associations or bodies representing specific industries. These organisations have been included within the category they represent.

A range of sizes of organisations were represented in the 83 organisational responses. One third (35%) had fewer than 10 employees, while at the other end of the scale, 23% had over 250 employees. The full profile is provided in Appendix A

Use of peat

Q4. For what purpose do you use peat?

In Q4, respondents were presented with a list of possible uses of peat and asked to select all those which applied to them or their organisation. Analysts coded responses from those answering that they do not use peat to ensure those who do not use peat were accurately included in the analysis of Q4, shown in the table below.

Base	% All respondents	% All peat users answering	% Individuals using peat	% Organisations using peat
(n=)	552	353	295	58
Gardening – professional	3	4	2	16
Gardening – amateur	38	59	68	16
Growing ornamentals – professional	4	6	1	29
Growing fruit/vegetables – professional	3	5	2	19
Retail sales	3	5	0	26
Business to business sales of peat	2	3	0	16
Heating - extracted from own/rented land for own use as fuel	11	17	19	7
Heating - buy for own use as fuel	9	14	16	3
Heating - sell for fuel	1	2	1	9
Food/drink production processes	3	5	2	17
Other (please specify)	6	9	5	29
Do not use peat	27	-	-	-
Not answered	9	-	-	-

Just over one quarter of all respondents – 27% - commented that they do not, or no longer, use peat, while a further 9% did not answer Q4.

Once these respondents are removed, the most common use of peat among those answering was amateur gardening (59%), followed by heating, with 17% extracting their own peat and 14% buying peat for fuel. These percentages were driven by individuals, with over two thirds of individual respondents being amateur gardeners and only small proportions indicating they use peat in any professional capacity.

Organisations that responded to the consultation use peat for a variety of purposes. Almost half use it to grow ornamentals (29%) or fruit and vegetables (19%), and a further 16% in professional gardening. Some who selected the ‘other specify’ option indicated they use peat for growing other species. One quarter (26%) of organisations sell peat or products containing peat in their retail outlets, and 17% use it in food and drink production, specifically whisky.

Q6. Is it easy to find alternatives to peat in your local retail outlet?

Base	% All answering	% Individuals	% Organisations
(n=)	498	441	57
Yes, they are readily available and clearly labelled	33	34	30
They are there but I need to scrutinise packaging to find them	32	33	18
I often find it hard to tell what is contained within products	8	9	2
I find it very difficult to find alternatives	8	8	9
I actively seek products containing peat and do not wish to use alternatives	6	6	0
I don't consider what growing media is contained within products	1	1	0
Other (please specify)	13	9	42

One third (33%) stated that peat alternatives are readily available and clearly labelled in their local retail outlets, and a further third (32%) stated that alternatives are there but that they need to scrutinise the packaging. Two thirds of individuals (67%), including 77% of hobby gardeners, selected one of these two categories in roughly equal proportions.

Organisations were most likely to provide another response (42%), which are presented below. A further 30% felt alternatives were available and clearly labelled, and 18% that packaging needs to be scrutinised. Other sub-group differences included:

- Retail plant sales organisations and growing media organisations were most likely to state that alternatives are available and clearly labelled – 70% and 57%, respectively.
- The groups most likely to feel it was very difficult to find alternatives were individual peat extractors/fuel users (30%), whisky organisations (20%) and professional gardeners/commercial growers (19%).

Q6 received 189 open comments. A mix of views were expressed, with respondents describing different experiences of sourcing peat-free alternatives. Several respondents highlighted labelling as a barrier to finding peat-free alternatives; further detail on respondents' comments about labelling is included in Chapter 3.

Easy to find

Many stated that it is easy to find peat-free alternatives at local retail outlets; some elaborated that the availability of such products has increased in recent years. Sources of peat-free alternatives included garden centres, hardware stores and supermarkets. Some stated they prefer bulk buying online or directly from growing media producers. A few highlighted specific stores which have stopped selling peat-based products in lieu of peat-free alternatives.

"I find most of the major stores (Dobbies, B&Q, local garden centres etc.) stock compost which is clearly labelled as peat free. The industry is obviously well aware gardeners are looking for this now." – Individual

"The situation is much improved this year compared to previous years, which may be due to a deliberate policy of my local retailer, which is Aldi." – Individual

However, some noted that whilst the availability of, and information about, peat-free alternatives had improved in retail over the past couple of years, these were still not always readily available or were not high quality. A few mentioned staff were not always helpful in enabling respondents to source peat-free alternatives.

"Easy to find but very inconsistent in quality" - Strathkinness Community Trust

"My small local garden centre of choice stocks a range of clearly labelled peat-free alternatives; in my experience, many of the large retail chains do not." - Individual

Difficult to find

Some described it as difficult to find peat-free alternatives, citing limited stock and choice available at local retail outlets, or inconsistent provision across different stores. A few added that peat-free alternatives are particularly difficult to find in rural areas. One respondent who described themselves as vegan explained it was hard to find peat-free products which are also free of animal products, as many alternatives contain sheep wool.

"There were no alternatives available in the store at all, even though I looked for one specifically without peat." – Individual

"Larger retail outfits appear to stock and label peat-free alternatives quite well and have several alternatives, but in my experience the smaller garden centres frequently appear to have but a very limited amount and little selection." – Individual

Other comments

Several respondents said they had not tried to find peat-free alternatives before because they only use homemade compost or peat-based products.

Q7. When buying growing media, on what do you base your choice?

Base	n=	% Not important	% Quite important	% Important	% Very important
Environmental consequences	463	4	7	11	77
Performance	459	3	22	40	34
Consistent product quality	455	4	24	44	27
Cost	457	6	37	40	17
Brand loyalty	448	85	10	3	2

The table above presents the results of Q7, ranked from the most to least important consideration when buying growing media. Full results by type of respondent for each consideration can be found in Appendix A.

Among all respondents, environmental consequences were considered most important – 77% stated this is very important to their choice and a further 11% important. More detail about respondents' environmental considerations is included in Chapter 8. Three other factors were considered important by most respondents, but to a lesser degree – 34% felt performance is very important, 27% consistent product quality and 17% cost. Most (85%) stated that brand loyalty is not important.

Several differences were evident by type of respondent across the five considerations:

- Environmental consequences were considered very important by 79% of individuals and 63% of organisations. Over half of all respondent types considered this very important, except for growing media organisations (29%) and individual peat extractors/fuel users (16%).
- Performance was far more likely to be very important for organisations (78%) than individuals (29%), particularly organisations in retail plant sales (91%) and growing media (86%).
- Consistent product quality was very important to 72% of organisations compared to 22% of individuals, with all growing media organisations and 82% of retail plant sales organisations considering this aspect very important.
- Fewer than one in five individuals (17%) or organisations (18%) rated cost as very important. Over half (52%) of individual peat extractors/fuel users rated cost as very important; this was the most important consideration for this group.
- 88% of individuals and 63% of organisations felt brand loyalty was not important. Most types of respondent felt the same, except for 71% of growing media organisations who considered brands to be quite important.

Respondents were asked to share any other considerations which affect their choices when buying growing media; 128 open comments were received. Many reiterated or elaborated on the five considerations listed in the closed question by describing how product quality and environmental factors, such as products being peat-free, consisting of sustainable ingredients or having biodegradable or plastic-free packaging, affect their buying choices.

The most common additional consideration mentioned by respondents was availability. This was described in terms of both available stock within stores and outlets and local availability, i.e. whether growing media could be purchased within a reasonable distance from their home or delivered to their location.

Some stated they prefer using organic or natural products and try to purchase growing media which is free from fertilizers, pesticides, herbicides or artificial chemicals.

A few felt that brand reputation and behaviours are important. One expressed their preference for companies with sustainable business models, and another noted that they avoided a particular growing media brand due to past problematic business practices.

Some said they prefer to buy from small, independent stores rather than large retailers to stimulate the local economy and support local businesses. Two respondents said their buying choices are influenced by gardening media, like magazines, websites and television programmes.

3. Labelling of horticultural products

This chapter presents the analysis of responses to three questions which asked respondents about the information provided on growing media packaging and about the growing media used in potted plants.

Growing media packaging

Q8. Is the information provided on growing media packaging (e.g. printed on bags of compost) or signage sufficient to allow you to make an informed decision regarding…?

Base	n=	% Yes	% No	% I don't look at information on packaging/signage
…the environmental impact of its contents?	479	28	63	9
…whether growing media contains peat?	481	58	34	7

The table above presents the results at a total sample level. Full results by respondent type for each question can be found in Appendix A.

Over nine in ten respondents indicated that they look at information provided on growing media packaging or signage. Almost three fifths (58%) stated that they are provided with sufficient information about whether growing media contains peat. A lower proportion – 28% - stated they had sufficient information about the environmental impact of the contents of the growing media. Some differences by respondent type included:

- Growing media organisations were most likely to feel there was enough information about whether growing media contains peat (100%) or environmental impact (60%). One whisky organisation that answered Q8 also agreed in both cases.
- Environmental organisations were least likely to agree there was enough information about whether growing media contains peat or environmental impact (63% and 86% answered no, respectively).
- While 89% of retail plant sales organisations felt there was information about peat contents, only 22% felt there was information about environmental impact.
- Around one third of Individual peat extractors/fuel users and other individuals stated that they do not look at packaging information; it is possible that this answer option may have been selected as a proxy for people who do not buy growing media.

Growing media used in potted plants

Q9. Do you think there should be more information about the growing medium present in potted plants at the point of sale?

Base	n=	% Yes, so I can make an informed decision on what I purchase	% Yes, so I can avoid buying plants in peat	% I don't wish to know what growing medium the plants I buy are growing in	% The plants I buy display information detailing the growing medium used
All answering	471	38	52	7	2
Individuals	425	37	54	8	2
Organisations	46	54	35	7	4

The vast majority of respondents (90%) felt there should be more information about the growing medium present in potted plants, either to help them make an informed decision (38%) or to avoid buying plants in peat (52%). Only 2% of all respondents stated that the plants they buy display information about the growing medium used.

A high proportion of both individuals and organisations agreed, though individuals were more concerned about avoiding peat (54%, and 62% among hobby gardeners), while organisations wished to be able to make an informed decision (54%). While over half of all types of respondent felt there should be more information, groups who were more likely to state that they do not wish to know included growing media organisations (40%), individual peat extractors/fuel users (28%) and other individuals (17%).

Support for better labelling

Respondents were asked to share any further views they held on labelling. The most common theme among the 126 responses to Q9 was support for improvements in labelling. Many reiterated their view that there should be more clearly presented information about growing medium in potted plants, noting this would be helpful or useful as a consumer. Others suggested this would improve transparency and accountability for producers and help consumers to make more sustainable choices.

"For people like me who wish to avoid peat buying potted plants is very difficult as they are never labelled. I think people have a right to know what they are buying so clearer labels should be required until a ban on peat is in force." - Individual

"Stricter labelling would help me make an informed choice and increase accountability for producers as plants are often sold in unsuitable mediums." – Individual

"The REA believes that generally it is easy to find alternatives in local retail outlets, however, in some cases there are improvements that can be made in labelling. It is not always clear from the information provided on a bag of growing media, what ingredients it has been made from and if it contains peat." - The Association for Renewable Energy and Clean Technology (REA)

There were calls from different types of respondents for improvements in labelling practices, including plants sold online. A few suggested that clear labelling of ingredients of horticultural products should be made mandatory.

While most argued there should be better labelling to help them avoid peat-based products, a few called for clearer labelling to help them identify and purchase plants grown in peat-based products, as they felt this produced better quality plants.

Concerns about labelling

The second most common theme was concerns about current labelling practices among horticultural products. Many described labels as lacking in information, accuracy or clarity. Potted plants were seen as particularly poorly labelled, with many respondents noting they often find it difficult to decipher which materials or ingredients are present.

A few raised concerns that packaging can be deliberately misleading to conceal the presence of peat. Others questioned whether terminology like 'peat-free' guarantees a product has zero peat in it, or that no peat has been used at any stage of cultivation. A few criticised using 'peat-free' to promote products as environmentally friendly, suggesting that a product being free from peat does not guarantee it was produced sustainably.

Suggestions for best practice

Several respondents made suggestions for best practice, for example, using different coloured pots to indicate whether peat is present, using QR codes, or stating whether peat was used on a warning label on the side of the pot. Some suggested a standardised approach using one recognisable symbol to indicate which products are peat-free.

> "It might be helpful to have a uniform label or sticker that can be applied to any products that are peat-free (similar to the 'Suitable for Vegetarians' leaf symbol that is standardised across food products)." – Individual
>
> "There should be an easy to understand logo, such as that used by the Royal Horticultural Society to label pollinator friendly plants/seeds." - Individual

A few respondents suggested that more information should be included on packaging, for example: the wider environmental impact of the product, e.g. transport miles, whether other chemicals e.g. pesticides, have been used, or educational information explaining the negative environmental consequences of using peat for growing purposes.

> "I think there should be more information about whether a product contains peat, perhaps an ecological consequence warning akin to the health warnings on cigarettes, bold and impossible to overlook, should be there." – Individual

The Scottish Retail Consortium and Growing Media Association UK both referenced a voluntary on-pack labelling system called the Responsible Sourcing Scheme (RSS), suggesting it could be explored or promoted further by the Scottish Government.

"The RSS scheme was developed as a tool to make bag labelling more uniform and transparent and is being rolled out as new packaging runs come on stream. The RSS website contains details of the scoring system and the labelling details for products." - Growing Media Association UK

Other comments

While many raised concerns about labelling, some respondents described the quality and clarity of horticultural labelling as generally having improved in recent years. A few said that they did not wish to see any further information about growing medium on product labelling as it did not affect their decision; one business said it had found it made little impact on customer's choices, and they simply 'buy the plant which looks the best.'

Q10. If you are a retailer/grower, how difficult would it be to indicate whether peat is present in growing medium within pots?

Base	n=	% Impossible	% Difficult	% Fairly Easy	% Very Easy
All answering	66	15	21	21	42
Individuals	37	19	19	27	35
Organisations	29	10	24	14	52

Q10 was targeted at retailers and growers, and while only one in ten respondents answered, this includes a small number of individuals. These individuals have not been excluded from the analysis as they may fit the description but chose to respond to the consultation as an individual. Among those who answered Q10, 42% stated it would be very easy, and a further 21% fairly easy, to indicate the presence of peat in potted plants. One fifth (21%) felt this would be difficult, with 15% suggesting it would be impossible.

Among the target audiences for the question, 64% of professional gardeners/commercial growers felt this would be very easy. In contrast, retail plant sale organisations were evenly split, with half stating this would be easy and half difficult.

Thirty-eight respondents provided an open-text comment in response to Q10, again from a range of different types of respondent. There were no clear patterns in comments; however, commercial bodies were more like to comment on the challenges that would be involved in the labelling process.

Easy to indicate

Several respondents described the process of indicating whether peat is present in growing medium within pots as 'easy', 'straightforward' or 'basic'. However, most did not provide any further justification or reasoning for their position. A few specified that it is easier for small-scale growers to label their products as they are likely to have shorter supply chains and therefore a greater degree of traceability and transparency.

Difficult to indicate

Challenges in indicating whether or not peat is present in growing medium within pots were raised by several respondents, with some describing the process as difficult or complicated. Some mentioned logistical issues, such as additional costs and resources that would be incurred, including time, resources, and printing and labelling facilities and materials. Others focussed on difficulties in determining whether or not peat has been used in products due to a lack of transparency in the supply chain.

> “Not impossible, but difficult. Nurseries will often buy in young plants from abroad, the supply chain for these is very complicated often coming from a variety of different sources and countries. Plant passporting does help this but still makes information gathering difficult”. - Dejex

4. Moving away from using peat

This section examines respondents' opinions on the timescales for ending the sale of peat. It explores if and when respondents might be able to stop using peat and, in particular, the use of peat in horticulture, whether and when a ban should be introduced, and the possibility of exemptions.

This chapter focuses more on horticultural uses of peat, with potential considerations and impacts for specific groups, including the whisky industry and those using peat for fuel, presented in the following chapters.

11a. Could you or your company stop using peat now? Please provide any further explanation if required.

Base	n=	% Yes	% No
All answering	414	69	31
Individuals	351	74	26
Organisations	63	43	57
Individual - Hobby / Private Gardener	242	90	10
Individual - Peat extractor / fuel for domestic use	49	20	80
Individual – Other	47	47	53
Professional gardener / commercial grower	28	61	39
Organisation - eNGO	9	89	11
Organisation - Retail plant sales	12	42	58
Organisation - Growing Media	8	25	75
Organisation - Whisky	8	0	100
Organisation - Other	11	45	55

Among those answering Q11a, over two thirds (69%) stated they could stop using peat now, and 31% stated they could not. The ability to stop using peat was very mixed by respondent type. Individuals were far more likely than organisations to say they could stop (74% compared to 43% respectively). This was driven by the vast majority of hobby gardeners (90%) who could stop, whereas 80% of individuals who extract or buy peat for domestic fuel stated they could not stop.

Among organisations, most environmental organisations (89%) could stop, and retail plant sale organisations were relatively evenly split, with 42% able to stop and 58% unable. However, growing media and whisky organisations held firm views, with 75% of the former and all of the latter stating they could not stop peat use.

A further 187 respondents left a comment to explain their answer. One third of this group, mostly hobby gardeners, commented that they had already stopped using peat. While many did not elaborate, others explained that alternatives are available and that they have successfully used them. One professional grower indicated they had stopped using peat

‘as far as possible’. Some respondents across Q11a and Q11b, who were almost all hobby gardeners, noted they no longer bought or used peat in their own garden, but may still unknowingly buy plants grown or potted in growing media containing peat.

“I buy peat-free compost often and find it is just as good as compost with peat. It is also affordable, so there is no justification for peat to continue to be used that I can see.” – Individual

“We stopped using peat 20 years ago. There are plenty of alternatives, and they are increasing all of the time, including coir, for example, or local authority composting.” – Scotia Seeds

The remaining two thirds of open comments made at Q11a, most of whom had answered that they could not stop using peat, aligned with the comments and themes evident at Q11b. To avoid repetition, the qualitative analysis of both questions is presented below.

11b. If you answered 'no' then why cannot you stop using peat now? Please specify if necessary.

Almost all the respondents who answered ‘no’ at Q11a answered Q11b (124 out of 128). The reasons why they cannot stop using peat are outlined in the table below. Note that percentages may add to more than 100% as multiple answers were allowed.

Base	n=	% Availability of suitable alternatives	% Cost	% Performance	% Change in equipment / machinery	% Storage	% Other (please specify)
All answering	124	60	56	37	17	11	22
Individuals	88	51	60	28	15	9	19
Organisations	36	83	47	58	22	17	28
Individual - Hobby / Private Gardener	23	48	35	35	4	4	13
Individual - Peat extractor / fuel for domestic use	38	47	89	26	21	11	13
Individual – Other	24	58	38	25	13	13	38
Professional gardener / commercial grower	11	82	82	73	36	0	9
Organisation - eNGO	1	100	0	0	0	0	0
Organisation - Retail plant sales	7	100	43	71	14	29	14
Organisation - Growing Media	6	100	100	100	67	67	50
Organisation - Whisky	8	63	0	25	0	0	25
Organisation - Other	6	67	17	17	0	0	50

The two main reasons why respondents felt they could not stop using peat were the availability of alternatives (60%) and the cost implications (56%). These were the main considerations for most types of respondents, with the exception of environmental and whisky organisations who did not raise cost as an issue. The performance of peat compared to alternatives was also noted by one third (37%). It was also a key consideration alongside availability and cost for professional gardeners / commercial growers (73%) and growing media organisations (100%).

A total of 59 respondents provided an open comment in Q11b. The themes evident in these responses, as well as in comments from Q11a, are listed below.

Perceived importance of peat in some parts of professional horticulture

Many respondents stated they could not stop using peat as it is essential to their business or personal use, which varied by the type of respondent.

Several professional gardeners / commercial growers and growing media organisations stated that growing certain types of plants, vegetables, fruits, tubers, and mushrooms would only be possible with peat. Challenges in achieving consistent results and developing machinery to cater for peat-free media were particular issues mentioned.

This is explored more in the analysis of Q12 and Q13 below. In response to this question, the Growing Media Task Force (GMTF)[5] noted that a ban on the sale of peat could have a severe impact on different growing industries and called for any ban to be "brought in on realistic and well thought through time scales, built upon sound evidence and analysis of the impacts such a ban will have on an environmentally and economically important sector including assessments of consumer choice & price, jobs and businesses viability".

Others stated they could not continue their business as usual without peat. This included Northern Peat & Moss Ltd, which extracts peat moss commercially, and the Royal Botanic Garden Edinburgh, which acknowledged they would be able to stop selling plants grown in peat-based compost, but would find it difficult to source the plants for the Garden.

Many highlighted that peat is essential to those using peat as fuel, and some noted the importance to the whisky industry; these are described in more detail in Chapters 6 and 7.

Challenges of using alternatives to peat

Many respondents outlined why it would be difficult to use alternatives to peat, mostly echoing the answer options in Q11b. Challenges included the higher cost of alternatives, that alternatives are typically poorer quality, the lack of availability and that alternatives could be less environmentally friendly.

[5] The Growing Media Task Force is made up of the Horticultural Trades Association (HTA), the Garden Centre Association (GCA), the National Farmers Union (NFU), the Growing Media Association (GMA) and the Responsible Sourcing Scheme for Growing Media (RSSGM/RSS), which in turn represents many growers in Scotland and the UK.

"How the actual availability for the industry can be created in practice remains the subject of discussion. The political framework must be adapted accordingly. Obstacles to use in the substrate industry are, e.g. the hard-fought and empty raw materials market, the thermal utilization of biomass, the failure to meet the high-quality standards for raw materials in the production of growing media as well as transport routes and costs." - Industrieverband Garten e.V.

Similarly, many responses to Q11c suggested respondents could only feasibly stop using peat when alternatives were effective and available.

The higher cost of peat alternatives was highlighted by several, primarily individual hobby gardeners and individuals using peat for fuel. A few growers noted that using alternatives could result in higher growing costs and the cost of potential wastage or loss of crops.

"We have already had issues with storing peat-free products over winter and having to dispose of product as it had rotted in the bags because of the higher green waste component. This cost the business money but could also happen to consumers at home storing bags over a longer period with inconsistent results if used after a period of time." – Torwood Garden Centre

Several respondents, almost all hobby gardeners, professional growers or retail plant sales organisations, argued that the quality of the alternatives was too poor to switch from peat to another growing medium. Respondents frequently highlighted that they had tested peat-free composts but with limited success.

"I was asked in 2021 to attend the official NIAB peat-free compost trials for acid-loving plants. They tested the six leading brands, and in every case, the results were very bad. Plants were chlorotic, unsalable and certainly not commercially acceptable. Indeed to sell such a thing as peat-free ericaceous compost, which is not fit for purpose, should not be allowed, and as Scotland's leading rhododendron breeder and grower, we won't sell it." - Glendoick Gardens Ltd & Glendoick garden centre

"I have been trying alternatives for three years and not found a viable product." - Beechgrove Trees and Hedging

Various types of respondent noted concern about the availability of alternatives. Some respondents suggested that, regardless of the efficacy of any alternatives, the current production and supply chain of alternatives would be insufficient to meet the demand from commercial growers in the event of a ban.

"In 2020 we surveyed our regular plant suppliers to see if they were ready to supply us peat-free; we concluded that, in general, they were not, and that to become peat-free we would have to procure from much further afield. On balance, we decided that the environmental and financial cost, as well as the impacts on small and local Scottish horticultural businesses, were all too high to insist on our plant suppliers being peat-free without the wider support of government and industry." – National Trust for Scotland

"Commercial plant propagation also relies heavily on peat as its main growing media. While there are some replacements available, the availability of such alternatives on the scale needed to grow food on a national scale is yet to be established." – Soil Association Scotland

"When I find a suitable alternative. That depends on others bringing new products to market, me trialling them and then making any necessary adjustments to my production system. In reality, even if a new viable proctor was found in 2024, it would be 2026 or 2027 at the earliest by the time I could make a complete switch." - Beechgrove Trees and Hedging

Some suggested that the alternative would need to be environmentally friendly, and a few requested that any transition includes enough time to adequately test the quality and supply chains for any alternative. For instance both the HTA and Growing Media Association suggested the time needed to be long enough to allow production to continue supply to current market levels but short enough to generate innovation and change. A commercial grower noted that the lifecycle of some of their plants is several years, so sufficient time is required to repeatedly test alternatives to fully understand their impact and then implement alternatives if they are successful

"It is therefore vital that plans for banning the sale of peat are accompanied by research and innovation in peat free product development and supply chains, to help make alternatives available and cost effective across the professional horticulture industry." – Soil Association Scotland

11c. If not now, when could you feasibly stop using peat? Please indicate a date (year) when it is likely that you could stop using peat.

Never

Of the one fifth of respondents who answered Q11c, the most common theme was that they would never stop using peat or that it would be impossible to stop. Almost all were individuals, and most did not provide further details as to why. However, some of these comments were from those who cut their own peat and were clearly concerned about all use of peat being banned, rather than just the sale of peat.

"When I'm dead or unable to stagger to the peat hill." – Individual

Availability of suitable alternatives

The availability of alternatives was the second most common theme, as outlined in the analysis of the previous question.

Specific years

Some respondents outlined when they could realistically stop using peat. A few each mentioned, in order of prevalence: between 2030 and 2050; by 2030; 2024; 2023; 2025;

and 2026. Some other respondents argued the use of peat should stop immediately, while one of those suggesting a ban by 2030 noted that it should start sooner and be phased in.

"The REA supports the earliest possible date for a ban on the sale of peat generally. A reasonable baseline could be to align Scottish legislation with the ban on peat-based products in England and Wales; the earliest dates consulted on were 2024 for the retail sale of peat for the amateur horticulture sector and 2028 for the professional horticulture sector. The REA supports these dates." - The Association for Renewable Energy and Clean Technology (REA)

"We would support a ban on bagged compost containing peat by the end of 2024… We believe it is more complex for plants…We believe it is more reasonable to aim for a phased reduction of plants grown in peat starting from 2028. However, this will only be viable if supported by financial support for research and development for horticultural producers to allow them to develop and bring to market viable alternatives to peat." Scottish Retail Consortium

Some suggested it was impossible to predict a date, due to a lack of knowledge about when alternatives would be available. One retail plant sales organisation highlighted that their suppliers are unable to say when they can produce a peat free product.

"Our members will confidently be able to stop using peat when suitable alternatives are found. While setting a date for a ban will drive innovation to find alternatives, it could be disastrous if an alternative is not found by that date. At the current rate of progress, it is very difficult to estimate when this date would be." – National Farmers Union Scotland

12. Are there any plants for which peat is vital for growth and you are not aware of suitable alternatives? If yes, please provide further information.

13. Is peat necessary for propagation (raising a plant from a seed / bulb / corm / tuber / vegetative cutting)? Please specify if necessary.

The themes in responses to Q12 and Q13 were very similar. We therefore present the quantitative results of Q13 below, followed by the qualitative analysis of both questions.

Base	n=	% Yes (please specify)	% No	% Sometimes (please specify)
All answering	357	10	83	8
Individuals	302	6	89	6
Organisations	55	31	51	18

Overall, four fifths of respondents (83%) stated that peat is unnecessary for propagation. Individuals were very clear in this view – 89% answered no, including 92% of hobby gardeners. However, organisations held more mixed views. Half (51%) answered no, with this view held by 82% of environmental organisations. A further third of organisations (31%) stated peat was necessary, and 18% indicated this was sometimes the case. Growing media organisations were mostly likely to state peat is necessary (63%), with retail plant sale organisations and professional gardeners/commercial growers also more likely than other groups to state peat is, or is sometimes, necessary.

Peat is not essential in retail horticulture

The most prevalent theme in open comments in response to Q12 and Q13 was that there are no plants for which peat is essential for growth or propagation, or that the respondent was unaware of any. This view was held by the majority of hobby gardeners who commented and a mix of other types of respondents, including some professional gardeners / commercial growers.

Many held this view because of the availability and quality of peat-free alternatives; some elaborated that compost can be made acidic using alternatives to peat such as bracken, coffee grounds and recycled paper or card. Other alternatives to peat were mentioned, including coconut coir, sand, perlite, grit and vermiculite. The Anaerobic Digestion and Bioresources Association (ADBA) referred to a study which demonstrated the efficacy of digestate-based growing media as a suitable alternative to peat for germination.

> "Peat-free composts are widely available and have excellent results in many species. The quality of peat-free alternatives has improved over the years, covering the necessities of a growing market." - Scottish Wildlife Trust
>
> "We have carried successful peat-free trials on ericaceous plants and do not believe there are any plants that cannot be grown in peat-free compost." – Kingfisher PLC
>
> "There is plentiful evidence, over many years, that has demonstrated alternatives to peat can be used successfully during propagation." - For Peat Sake
>
> "We grow a wide diversity of plants in our gardens across Scotland and have not found any that we need to propagate that we cannot do so peat-free." – National Trust for Scotland

A few gave examples of growers who have successfully transitioned to peat-free practices.

> "Salix Plants grows peatland and wetland plants in peat-free compost. The plants that Salix Plants grow are the plants that are naturally found growing in pure peat in peat bogs." - Individual

Perceived importance of peat in some parts of professional horticulture

However, this view was not unanimous; several different types of respondent highlighted plants which they deemed to require peat for successful and healthy growth, including:

- Ericaceous or acid-loving plants, such as azaleas, rhododendron and calluna.
- Fruit and vegetables, including potato mini-tubers, mushrooms and blueberries.
- Peatland or bog plants.
- Carnivorous plants.

A few noted that while peat is not vital for propagation, it makes the process easier and yields better success rates, meaning a ban on the commercial sale of peat may significantly impact businesses and the mass production of fruit and vegetables.

Some respondents recognised the availability of peat-free alternatives but maintained that peat yields the best results. Alternatives to peat were described as low-quality or unsuitable, particularly by commercial growers. For example, a few described them as too rough or too high in nutrients for small seeds to germinate. Others claimed that peat has greater water-holding capacity than alternatives.

> "Our potato plantlets are grown by micropropagation; the plants require a good substrate for successful weaning." - Gentech Propagation Ltd
>
> "Alternatives I have tried are poor quality including what looks like recycled clothing material and wood chips which have not broken down sufficiently." – Individual

There were calls for improvements to the quality of peat-free alternatives and consideration of their commercial viability and environmental impact before implementing a ban on the sale of peat. A few respondents called for more time for peat-free alternatives to be tested. For example, one commercial grower suggested that once they are presented with a possible alternative, it could take at least three years to assess whether it is a viable alternative and then a further three years to grow plants on a commercial scale. A growing media organisation cited a 30% mortality rate with seeds which are sensitive to lime when raised on peat free substrate.

The Growing Media Taskforce and HTA indicated that research was ongoing in many locations, hence longer being required for propagation purposes. One commercial grower stated it was currently undertaking trials into the use of peat-free propagation media and pre-made plugs from five different manufacturers. However, they cautioned these were at an early stage, and more time was required for repetition to ensure consistency was achieved.

HTA noted it would send the Scottish Government grower technical workshop feedback on propagation difficulties in plug production in peat-free substrates. A small number indicated the importance of plug and young plant imports for the horticulture industry leading the Scottish Retail Consortium to call for further research:

"Consideration should be given to the process involved to develop peat-free propagation techniques for all species and types of propagation. Also, an evaluation should be made of the ability of and willingness of the EU market to supply peat-free plugs and young plants to Scottish growers leading up to a complete ban on peat." – Scottish Retail Consortium

Other comments

Some respondents suggested that even if there are plants for which peat is essential, they should not be grown or sold for horticultural purposes if it means peat is required.

A few stated they did not have the knowledge required to provide an accurate response to the question; one called for the Scottish Government to conduct its own horticultural research to get definitive answers.

14. Are there any instances where a % of peat should be permitted within a container-grown plant and what are those instances? Please explain further if necessary.

Base	n=	% A small percentage should be allowed to account for that which is transferred when replanting propagated material	% A percentage should be allowed, for a finite period of time, to facilitate transition away from peat for certain plants (please specify plant and %)	% None / No instances / 0%	% Other (please specify)
All answering	236	19	25	44	15
Individuals	193	20	24	48	10
Organisations	43	16	33	23	37
Individual - Hobby / Private Gardener	150	17	23	55	7
Individual - Peat extractor / fuel for domestic use	9	44	33	0	22
Individual - Other	24	25	25	25	25
Professional gardener / commercial grower	19	21	26	32	37
Organisation - eNGO	10	0	20	40	30
Organisation - Retail plant sales	12	25	33	17	33
Organisation - Growing Media	7	29	29	14	43
Organisation - Whisky	0	-	-	-	-
Organisation - Other	5	0	60	20	20

Just over two fifths of respondents answered the closed element of Q14, while one third left an open text comment. However, in the absence of a closed answer option for 'no', over half of the open comments argued that there are no instances where a % of peat should be permitted within a container-grown plant. For analysis purposes, we have

recoded these open comments into a new answer option in the above table. Please also note that multiple answers could be selected, so some rows add to more than 100%.

Among those answering Q14, 44% were in the new category of no instances should be allowed. This option was more likely to be selected by individuals (48%), particularly hobby gardeners (55%). One fifth (19%) agreed that a small percentage should be allowed to account for that which is transferred when replanting propagated material, and one quarter (25%) agreed that a percentage should be allowed, for a finite period of time, to facilitate the transition away from peat for certain plants. The remaining 15% suggested another option, with growing media organisations (43%) and professional gardeners / commercial growers (37%) more likely to suggest another option.

Support for an outright ban

Many respondents reiterated their support for an outright ban on peat for environmental reasons. A few described the proposal to allow a percentage of peat within a container-grown plant as a 'partial exception' and raised concerns that this may be exploited or used as a loophole.

> "There are no such instances. We need to withdraw from using horticultural peat in order to address the climate emergency and safeguard biodiversity." - Individual
>
> "Permit any percentage and it opens a loophole for continued destruction of Scotland's peat lands." - Individual

However, several respondents recognised the challenges that becoming peat-free poses to industrial growers, and therefore supported an approach whereby a small percentage of peat is allowed for now but phased out over time. Support for this approach was echoed by a few respondents who suggested that to avoid waste, any potted trees and shrubs which were propagated using peat before its use was prohibited should be allowed to mature and be sold within a defined period.

> "A small percentage of peat transferring due to propagation should be tolerated as a contaminant but only for a short and finite period of time (e.g. one generation of plants)." – Common Weal
>
> "A small percentage should be allowed to account for that which is transferred when replanting propagated material, but for a relatively short period of time to give a year or two for those propagating to move away from peat." - Individual

There were calls for adequate time and support to be given to growers during the transition to peat-free growing.

Exemptions

Several respondents agreed that there are instances where a percentage of peat should be permitted within a container-grown plant; for example, some suggested that ornamental, ericaceous, vegetable, and mini-tuber producers should be allowed to use some peat to support successful propagation and growth. Views on the percentage which

should be allowed varied. Each of the following levels were suggested by either one or two respondents: 1%; 5%; 10%; 25%; 40%; 50%; and 80%.

A few called for separate consideration for using reclaimed or sustainably sourced peat, and others suggested that a percentage of peat should be allowed until better peat-free alternatives are developed. Two advised that a percentage of peat should be allowed only for endangered plant species by botanical gardens that deal with their conservation.

As with other questions, some argued that there should be no limit or restrictions on the percentage/amount of peat permitted or the circumstances under which it is used.

The Growing Media Task Force cautioned against using percentages to define a limit, describing this approach as complicated and difficult to enforce. Instead, they suggested the premise should be to accept there will be peat in pots, whether due to legacy peat from green waste or from young plants raised in peat based media and then containerised.

15. Should there be a ban on the sale of peat and peat-containing products in Scotland? If yes, please explain anything that should be exempt

Base	n=	% Yes - for all/ most peat sales	% Yes - for all horticultural peat sales	% Yes - for retail horticultural peat sales	% Yes - for professional horticultural peat sales	% No
All answering	514	62	12	5	2	19
Individuals	448	65	11	4	2	18
Organisations	66	47	15	9	0	29
Individual - Hobby / Private Gardener	330	76	12	4	1	8
Individual - Peat extractor / fuel for domestic use	50	6	18	2	10	64
Individual – Other	56	45	5	5	5	39
Professional gardener / commercial grower	26	58	4	19	0	19
Organisation - eNGO	15	80	13	0	0	7
Organisation - Retail plant sales	12	50	17	0	0	33
Organisation - Growing Media	8	0	13	13	0	75
Organisation - Whisky	3	0	67	33	0	0
Organisation - Other	14	50	14	7	0	29

Responses to Q15 were very mixed. Overall, three fifths (62%) indicated that there should be a ban on all/most peat sales, with a further 12% supporting a ban on all horticultural peat sales. One in five (19%) disagreed. A majority of both individuals and organisations

were in favour of some form of ban, though organisations were less firm in their views. 65% of individuals and 47% of organisations stated there should be a ban on all/most peat sales, with 18% and 29%, respectively, stating there should be no ban.

The highest support for a ban on all/most sales was among environmental organisations (80%) and hobby gardeners (76%). Over half (58%) of professional gardeners / commercial growers favoured this option, as did 50% of retail plant sales organisations.

Conversely, three quarters (75%) of growing media organisations opposed any ban, as did two thirds (64%) of individual peat extractors/fuel users. Among the three whisky organisations who answered Q15, there was support for a ban on horticultural uses only.

One third of respondents provided further comment in Q15. One third of comments called for a complete ban on selling peat and peat-containing products with no exemptions. Other respondents suggested specific exemptions, notably the whisky industry, traditional heating purposes and specific horticultural practices.

No exemptions

The most prevalent theme raised by many respondents was the need to ban the sale of peat completely and that there should be no exemptions. This was mostly supported by individual hobby gardeners and environmental organisations. The environmental consequences of not preserving peatlands were commonly highlighted as a reason for this stance, with some calling for further investment in peatland conservation. Others felt it was taking too long to stop using peat products, arguing that voluntary measures had helped somewhat but had been insufficient to drive the required reduction in peat use.

> "Nothing should be exempt. There has been a 'voluntary' peat reduction code since 2010. Thirteen years is plenty of time to have transitioned. We should have stopped using peat years ago." – Individual[6]
>
> "I don't like the idea of being forced to use peat-free composts, but we have been debating this for decades, and progress has been at snails' pace." - Individual

Ban horticultural use of peat

Many respondents, mostly environmental organisations and individual hobby gardeners, argued there was no reason to exempt the use of peat in horticulture. Most called for a complete ban on peat use by both amateur gardeners and professional growers as they felt suitable alternatives were available.

> "There should be no exemptions; no plants should be grown using peat. Almost all plants grow better without the inclusion of peat in their growing media. I achieve excellent germination using peat-free growing media. Salix nursery raises peatland plants in the UK, using peat-free growing media. arnivorous plants are also successfully grown peat-free by many UK growers." – Peat Free April

[6] The Natural Choice: securing the value of nature CM 8082 (publishing.service.gov.uk)

"From our own experience we have established that there are suitable alternatives for plant propagation and growing-on and believe that there is no reason to continue using peat for horticultural purposes." – National Trust for Scotland

It was argued that because alternatives are available for amateur gardeners, a ban could be introduced swiftly. However, some felt professional growers should have longer to transition. The IUCN UK Peatland Programme referred to their reports demonstrating viability across different horticulture areas[78].

Some highlighted the potential impact of a ban on horticultural use, such as shifting the problem elsewhere. Notably, the potential for peat alternatives having a worse environmental impact than peat was mentioned through processing alternatives, longer transportation routes for alternatives, mining of mineral alternatives and more importation of products that used peat in their production, such as young plants grown in peat-based growing media.

"Restrictions and banning only show results inside the borders of EU, Scotland or UK but does not make the market and consumers all over the world to change. If there is a market, there will be producers – for the climate, it does not matter, if the extraction or the usage is taking place in EU, Scotland, UK or outside the borders. Globally the emissions will stay." - Estonian Peat Association

A few felt some may attempt to circumvent the rules, such as if people could still buy peat in other parts of the UK or Europe or if producers made a non-exempt peat-based product, e.g. for heating, but really aimed at the horticulture market.

"And lots of people would circumvent it if peat was legal in England, with online purchases or trips to garden centres over the border." – Professional Gardener

The NFU Scotland and Scotia Seeds highlighted that competitors using peat would have commercial advantages, from price or performance. One also felt parity should exist between small and large gardening retailers when applying any ban.

"Our competitors may be using peat to gain a commercial advantage from price or performance." – Scotia Seeds

[7] https://www.iucn-uk-peatlandprogramme.org/sites/default/files/2021-11/Demonstrating%20Success%20Peat%20and%20Horticulture%202021.pdf (The IUCN UK Peatland Programme launched 'Peat-Free Horticulture – Demonstrating Success' (Holmes and Bain 2021)

[8] https://www.iucn-uk-peatlandprogramme.org/sites/default/files/2023-03/Demonstrating%20Success-%20Peat-free%20Horticulture%20Addendum%202023%20WEB_1.pdf The IUCN UK Peatland Programme launched 'Peat-Free Horticulture – Demonstrating Success' update 2023)

Cutting peat and use for fuel

Retaining peat use amongst crofters or people cutting their own peat was advocated by many. However, these comments typically suggested respondents' misunderstanding that a ban on all peat use was proposed rather than a ban on selling peat only. More analysis of comments relating to the impact on those using peat for fuel is in Chapter 7.

Exemptions for certain businesses

Another recurring theme was exempting certain businesses or sectors from using peat if no other alternative existed. Many argued that the whisky industry should be exempt; this is addressed in Chapter 6.

Other businesses for which exemptions were proposed included historic properties, botanical gardens, science agencies and commercial growers currently more reliant on peat-based media, including agriculture and tree planting businesses. One argued it would be necessary to safeguard local jobs by exempting locally sourced peat extracted from existing designated sites.

Where such exemptions existed, some respondents felt businesses should be subject to additional regulations. The prevailing view was that companies should be:

- Minimising and monitoring their use of peat.
- Seeking to identify alternatives.
- Adopting carbon off-setting measures.
- Involved in peatland conservation and restoration.

"Specific exemptions could be created for sectors that still genuinely have no current alternative to peat. WWF Scotland recognises that some sectors that are relatively small users of peat may need justifiable exemptions, including the Scottish whisky industry. Sectors with no genuine alternative should be required to minimise peat use, invest in peatland restoration, and sustain a programme of research & development into sustainable alternatives. For the whisky industry this could include sourcing peat from hand-cut sites, maintaining sphagnum to reduce conservation impact and carbon loss, and halting the use of mechanically cut peat." – WWF Scotland

"Only under very restricted licenses and strict controls should peat be used. A clear scientific or ecological purpose must be established for exemption and only to benefit the conservation and restoration of peat bogs. Exemptions must not be extended to the public or consumers." - Buglife - The Invertebrate Conservation Trust

Some argued for a transition period for some businesses to give them time to source and trial alternatives. However, this transition should be time-limited with the aim of all businesses becoming peat-free in the long-term. Peat Free April suggested these could be matched with a peat-free expert for active, ongoing support and advice and to provide regular checks during the transition period.

"We recognise there may need to be some time-limited exemptions to allow for transition in specific areas, provided a clear plan of action is developed to enable a speedy end to these temporary uses. Achieving the urgent protection and recovery of Scotland's peatlands will require a clear plan of action for any time-limited exemptions to a general peat sales ban. Any areas where an immediate end to peat use are considered worthy of an exemption must be examined to identify the hurdles and set out the means to address these." - IUCN UK Peatland Programme

Exemptions for specific horticultural uses

Another theme raised by many was allowing peat for some horticulture uses – mostly propagation and growing challenging species or for conservation purposes. This was explored earlier in Q12 and Q13. A few suggested composts made with naturally filtrated or reclaimed peat should be excluded, such as Moorland Gold Compost.

Maintaining a voluntary approach

Some felt the shift towards peat-free should remain voluntary. A few highlighted data demonstrating reductions in peat use among amateurs and professionals or argued that a voluntary approach would protect the commercial viability of the UK horticultural sector.

17. In what year should peat sales stop for retail horticulture (amateur/hobby gardeners)?

18. In what year should peat sales stop for professional horticulture (growers/landscapers/producers/business to business horticultural enterprises)?

19. In what year should peat sales stop for other uses? You may break this down to different years for different parts of the sector.

The majority of responses to Q17, Q18 and Q19 were very brief, with most simply stating a year or a timescale as instructed. However, some additional comments were made, with significant overlap in the points raised under the three questions.

Bans on peat sales for retail horticulture

Q17 received 444 responses. The most common year suggested to introduce a ban on the sale of peat for retail horticulture was 2023; this deadline was proposed by over two fifths of those answering. Several other respondents felt a ban should be implemented immediately, and several more noted their preference was 'as soon as possible', though this does not necessarily mean in 2023.

Approximately three in ten suggested a ban on peat sales for retail horticulture should be introduced in 2024, with some adding that the end of 2024 should be the goal at the latest. Just under one in ten proposed 2025. This means that around four fifths of those answering suggested a date by the end of 2025 at the latest, including almost all hobby gardeners who responded to Q17

The remaining respondents either suggested dates later than 2025 or argued that the sale of peat should not be stopped. Among those arguing for a later date, many suggested 2025 and some 2026, with a few suggesting other years between 2027 and 2050.

Peat sales stopped for professional horticulture

Analysis of the 380 open text responses to Q18 indicates that respondents generally consider a ban on peat sales for professional horticulture to be less urgent than a ban on sales for retail purposes.

Approximately one quarter stated that a ban on sales of peat for professional horticulture should be introduced in 2023, lower than the two fifths who suggested this year for a ban on retail sales. A further quarter suggested that the ban should come into place in 2024. As with Q17, many respondents suggested 'as soon as possible', 'now' or 'immediately'. Environmental organisations were more likely to seek an earlier start date:

> "SCCS therefore supports the Scottish Government's proposals to phase out the sale (and use) of peat for horticulture. Our only additional comment to this support would be that this phase out should be implemented as speedily as possible, and before the end of 2024 at the latest." – Stop Climate Chaos Scotland

A larger proportion of respondents suggested a date later than 2025 for a ban on professional horticulture peat sales than that for retail purposes – approximately one in six compared to fewer than one in ten, respectively. Suggested years, each mentioned by at least some respondents, included 2026, 2027, 2028, 2030, and 2050.

Within professional horticulture, a date of around 2028-30 was considered more feasible, assuming conditions were in place such as the availability of sufficient quantities of consistent, quality environmentally-friendly alternatives, ongoing research and development and further investment and support in machinery and technology innovations.

One commercial grower suggested 2028 for professional users to stop using peat but, along with a few other producers, felt that propagation material (including imported plugs and liners) and ericaceous plants needed longer than this. A growing media manufacturer, for instance, indicated a minimum of 10% of peat would be necessary for quite some time into the future for such plants. The Growing Media Taskfrorce noted that around 15% of nurseries growing ornamentals have gone entirely peat-free, with most others on a journey to peat-free by 2030.

> "Peat should remain available to the seed potato industry until suitable alternatives have been proven to be equal to peat in respect both of freedom from pests and diseases as well as the cost per tuber within the production process; currently approximately 50p per tuber!" - British Potato Trade Association
>
> "Exemptions should be considered past any end date for difficult to produce species or categories such as ericaceous, carnivorous, houseplants, for propagation purposes or for conservation purposes." – Horticultural Trade Association

The Scottish Retail Consortium also suggested 2028 as a suitable date for beginning to phase in a ban, whilst the Growing Media Association UK felt 2030 would be more suitable. However, both cautioned that these dates were only feasible if conditions were right, including the continuation of research and development and innovations in machinery. The former advocated for financial support to horticulture producers to allow them to develop and bring to market viable alternatives.

Stopping peat sales for other uses

As suggested by over one quarter of those answering, the most common year proposed for a ban on the sale of peat for other purposes was 2023, with just over one in five suggesting 2024 instead. Around one in seven respondents did not provide an exact date. Instead, many gave timescales like ‘as soon as possible’ for the ban, while several others preferred ‘now’ or ‘immediately’. Many others also suggested it should begin within two years or by 2025.

As with other questions, a range of other long-term deadlines were suggested by a few respondents, including: 2026, 2027, 2028, 2030, and 2050. Again, some stated that the sale of peat should not be banned at all

> “Ideally, we would want to continue to use sustainably sourced peat. It's been used for over 200 years and we would want to continue in high-efficiency methods and continuing to support peatland restoration.” - Whyte and Mackay Ltd

A higher proportion of respondents objected to a ban on the sale of peat for ‘other’ uses than for professional or retail horticulture, with around one in six arguing there should never be such a ban. These respondents highlighted the importance of peat to heating in rural and island communities, as well as the use of peat in the whisky industry.

> “Individuals who own or rent a peat bank and cut it by hand for domestic fuel are following a long tradition and have a minimal impact on peatland overall and should be allowed to continue.” - Individual

Other suggestions

Many respondents did not give a specific timeframe in their responses to each question. At Q18 several respondents instead advised that a ban in professional horticulture should be introduced once suitable alternatives become widely available; some respondents made the same argument in relation to a ban for other uses at Q19. Linked to this, in response to both Q18 and Q19, several respondents suggested that different timescales should be set for different sectors. However, very few elaborated on specific timescales for different sectors, and there was no pattern or consensus among those who did, except for a longer period or exemptions possibly being required by the whisky industry.

A few respondents at each question supported bans being introduced under timescales which align with England/the UK. Others asked for a phased approach to the ban on the sale of peat.

“A phased reduction of peat to a maximum 50 in any substrate mix should be brought to 2030.” – Dejex

“This should be a phased approach, with the smaller the scale of the use of peat being phased out from 2026 in increments of a year or two years to allow the supply chains to catch up with the demand for peat-free alternatives.” – Individual

“This should be phased out by consulting horticulturists and other specialists” – Individual

5. Economic impact on individuals and businesses

While Chapter 4 explored responses to questions about ending the sale of peat, two questions specifically focussed on the potential impacts on individuals and businesses. As there was a significant overlap in responses to these questions, the themes evident are presented together in Chapter 5.

16. Will your business be affected by a peat ban? If yes (positively or negatively), please explain.

Base	n=	% Yes, positively	% Yes, negatively	% No
All answering (%)	220	13	34	53
Individuals	159	8	25	67
Organisations	61	26	57	16
Individual - Hobby / Private Gardener	86	5	7	88
Individual - Peat extractor / fuel for domestic use	28	11	61	29
Individual – Other	32	9	47	44
Professional gardener / commercial grower	29	24	41	34
Organisation - eNGO	7	57	14	29
Organisation - Retail plant sales	12	42	50	8
Organisation - Growing Media	8	13	88	0
Organisation - Whisky	7	0	100	0
Organisation - Other	11	18	36	45

Although Q16 asked if a respondent's business would be affected by a peat ban, many individuals also answered the question. These individuals have not been excluded from the analysis as we do not know the wider context of their perspective i.e. they may also run a business.

Of the organisations who answered Q16, over four fifths (83%) indicated they would be impacted by a ban on the sale of peat; one quarter (26%) would be positively impacted and 57% negatively impacted. Positive impacts were more likely to be anticipated by environmental organisations (57%) and retail plant sales organisations (42%), though half (50%) of the latter group indicated they would be negatively impacted. All whisky organisations and 88% of growing media organisations anticipated negative impacts. Other organisations who noted they would be negatively affected included Northern Peat & Moss, Tomatin Firewood Ltd and Sandness and Walls Community Council. 61% of individual peat extractors/fuel users felt they would be negatively affected.

One in six respondents left an open comment explaining their answer to Q16. The most prevalent theme was that businesses would be adversely affected due to supply chain issues and increased costs, challenges maintaining growing capacity and quality, and threats of closure. While these comments were mostly from and relating to the horticultural sector, including retail plant sales and growing media organisations, a few noted risks to businesses in other sectors.

These same concerns were raised by many in Q20. To avoid repetition, the analysis below focuses on the anticipated impacts to businesses raised at both Q16 and Q20. Other impacts are then noted under the analysis of Q20.

Supply chain issues and increased costs

The risk to horticultural businesses was largely attributed to reduced sales of plants and growing media, and higher costs. Common challenges mentioned were supply chain issues including more limited stock, squeezed growing margins and reduced productivity. Further, the timing of a ban would impact supply chains; one commercial grower noted that some products potted prior to a ban might not be sold until two years later, suggesting that this timing also needs to be taken into account when applying any ban.

Increased costs were felt to arise through costs associated with sourcing and assessing the quality of alternatives and higher prices for alternatives. Similarly worded responses from the International Peatland Society and Peat Alliance highlighted the challenges of ensuring a steady supply of materials needed for peat-free alternatives.

> "The increased use of alternative growing media in the hobby gardening sector will only be possible if they are available in the required quantity and quality. Renewable raw materials can replace peat in various applications. However, the amounts of alternative growing media ingredients (e.g., wood based, coir, bark, cultivated sphagnum moss, and bracken) are not available. Cultivated sphagnum moss, for example, is currently not economically produced in large quantities. Bark and wood are being burned to generate electricity in the current energy crisis. The growing media industry is dependent on imports from the tropics for the by-products of coconut production… All raw materials must be responsibly grown or produced. This is possible for peat. The substrate industry will need all the raw materials that are available on the market in sufficient quality and at realistic prices". – International Peatland Society
>
> "Some of our licensees could be impacted by the cost/availability of alternatives to peat. If a full ban is implemented before the scaling up of suitable replacements for peat in horticulture, this could put a strain on the demand for these alternatives. This could in turn drive prices up – it will all depend on the level of availability against demand." – Soil Association Scotland

Some also highlighted that the cost of plants would rise if a ban were introduced due to increased expenditure associated with researching, developing and purchasing peat-free alternatives and the impact of poor growth. Growing Media Association UK noted cost implications for growing media manufacturers which included securing sufficient volume of alternatives, increase quality assurance to ensure quality growing media is produced, investment in equipment for handling alternatives, third party auditing of the new and

developing materials and new packaging for alternatives. A growing media manufacturer highlighted higher running costs associated with becoming mainly peat-free, despite having spent millions to achieve this.

> "The cost of plants we buy in to sell may rise owing to changes the growers may have to make. The range might also diminish." - Logie Steading Farm & Garden Shop

A few suggested the burden might be overwhelming for their businesses, but a few others did not believe the cost would be too much greater. Other cost implications mentioned in Q20 included higher immediate investment in equipment, irrigation systems, and expertise to transition away from peat, and increased import costs for peat-free growing media. Impacts on retailers were also noted.

> "For retailers, it may be possible to simply stop selling any products containing peat by not buying from suppliers growing using peat-based media. However, that would mean that existing product lines would need to be withdrawn. Potentially contractual agreements already in place would need to be reviewed to enable such a decision was possible. This would of course have very significant impacts on suppliers, who would be facing significant cost increases and lower yields and poorer quality. For the larger retailers, including supermarkets, consideration would also need to be given to the Grocery Supply Code of Practice. The implications would need to be understood with plenty of time to ensure retailers can remain compliant with obligations." – Horticultural Trades Association

In Q20, businesses described increased costs they would face should a ban be introduced. Many of these comments repeated the points made above. Other cost implications raised within professional horticulture included:

- Management time required to trial alternatives.
- Additional paperwork and labelling of products.
- Higher wastage as processes are refined.
- Higher staff costs arising from more regular watering and feeding of plants.
- Investment in irrigation systems that deliver nutrients for the distribution of plug plants in lorries and their short-term shortage when they arrive on-farm.
- Investment in machinery to upgrade compost into the form required by growing media companies.
- Increased transportation costs to obtain alternatives and due to peat free products being heavier than peat products.
- Additional costs arising from higher energy usage and water consumption when producing alternatives.

Growing capacity and quality

Plant growth challenges for horticultural businesses were raised by several respondents. They cautioned that reduced production levels were likely due to crop failure or poor-quality plants, i.e. if plants did not grow using alternatives. Some respondents in Q20 also

highlighted that a ban would reduce the goods they can produce. Points made by respondents about the impact on business included:

- Horticultural Trades Association cited a 2023 survey that found almost half (49%) of growers would narrow their range of plants grown and 79% of retailers expect to see a fall in plant sales in the event of a ban
- A commercial grower reported they would expect to see a loss of 25% of sales; another anticipated impact on quality, availability of catalogue and product margins and stated they would be unable to source suitable alternatives for approximately 25% of their crops, despite spending considerable amounts of management time trialling alternatives.
- Glendoick Gardens Ltd & Glendoick Garden Centre stated that ericaceous nurseries will close and there would be significant conservation consequences for species and cultivars.

> "Performance, including yield, could be negatively affected. alternative composts could potentially introduce damaging disease-causing organisms that might cause some stocks to become unmarketable." - Pre-Basic Growers Association

A few also highlighted that alternatives or imported peat could introduce plant diseases to the supply chain. Perceived consequences included a fall in plant sales, reduced product availability with demand outstripping supply and reduced profit margins. A few noted that competitors could use peat to gain a competitive advantage over Scottish businesses by offering lower prices or better quality products.

> "Our members' businesses will be negatively impacted by ending the sale of peat for horticultural use. It will put our members at a significant competitive disadvantage. As an example, vegetables grown from plants raised in peat in Europe will have a lower cost base than Scottish produce. Scottish growers will not be able to compete on price, and multiple retailers will import produce." - National Farmers Union (NFU) Scotland
>
> "Alternative composts would come with additional costs if peat were to be banned in mini tuber production. Yield and quality might be compromised and the risk of introducing damaging pathogens would be increased." – Pre-Basic Growers Association

Possible effect on businesses

The potential closure of businesses was mentioned by several, should they be directly affected by a peat sales ban. While most of these respondents did not provide details, a few suggested it could affect peat sellers, compost manufacturers, and whisky distilleries.

A recent survey conducted by the Horticultural Trades Association found 37% of horticultural companies expected to decrease output and employment levels, 9% expected to close completely if a 2026 date for ending professional peat use is introduced, and 79% of retailers expect to see a fall in plant sales. Separately, a few stated their business could face contraction or closure, e.g. garden centres closing or making staff redundant.

"Higher costs, reduced availability (including reduced range of products), reduced quality of product all leading to higher cost for consumer, reduced sales and less customer satisfaction with end product." – Torwood Garden Centre

Research and development

A few mentioned development work they had undertaken. The Growing Media Association UK noted significant investment in research and development, quality assurance and machinery. The Royal Botanic Garden Edinburgh stated a ban would have minimal impact on their garden operations as they had been transitioning for over a decade. They highlighted that the Responsible Sourcing Scheme for Growing Media should ensure alternatives do not cause environmental harm. A few noted long-term overhead costs may reduce over time as the cost of alternatives decreases.

"There may be some negative effects on cost and availability if demand for peat-free compost exceeds supply, particularly in the short-term following the peat ban. However, any negative effects are fully acceptable to us for the greater good of preserving and restoring peatlands. In the long run, cost and availability may be expected to improve as production increases." - RSPB Scotland

Positive impacts for businesses and consumers

Despite the prevalence of comments about the negative impact on horticultural businesses, some comments highlighted positive impacts for consumers and businesses. A few individual hobby gardeners suggested that consumers are actively seeking peat-free products. A few professional gardeners and commercial growers predicted a wider range of products being available and a reduction in the price of peat-free alternatives.

"We will have a greater choice of plants to buy in because all will be peat free. Hopefully there will also be a better range, choice and quality of peat free composts." – Anonymous professional gardener / commercial grower

"Customer confidence: I will be able to promise customers that the compost I provide is peat free." - Individual - Professional gardener / commercial grower

Q20. Please explain any potential costs or burdens that you or your business might face as a result of the outcomes arising from this consultation

There were 200 responses to Q20. Just over one quarter came from organisations, with the remainder from individuals. While both groups outlined potential economic consequences arising from the proposals, almost all of the points raised by businesses at Q20 were the same as those mentioned at Q16 and have been covered above. Below are the additional points raised primarily by individuals about costs and burden they or businesses might face.

No impact

The most common theme in response to Q20 was that there would be no burdens or costs arising from the suggested changes in this consultation. Aligned with the quantitative responses to Q16, most of these respondents were hobby gardeners.

One fifth of those who said there would be no impact were organisations. Only a few gave further detail, highlighting that they already avoided peat products or that the horticultural industry has had enough time to adjust to the possibility of a peat-free supply chain.

> "We had to learn to use peat-free products, but it only took a couple of years to fully adjust." – Anonymous organisation

Environmental cost

Several felt that if the sale of peat continued as at present, there would be negative environmental impacts on businesses and individuals. This included organisations speaking broadly about business failure due to climate change.

> "If a ban on peat is not introduced, there is a risk that the climate and nature crises are exacerbated, and we do not meet the targets required for net zero and nature positive. Healthy and thriving peatlands are key to achieving these targets." – Keep Scotland Beautiful

Other possible impacts

Several respondents at Q16 and Q20 noted the potential negative impact of a peat sales ban encompassing the whisky industry and those who use peat for domestic fuel. The impact on these groups is covered in Chapters 6 and 7 respectively.

Negative impacts on other sectors such as food, tourism and the wider economy, e.g. on employment and lost revenue, were noted by a small number.

Less commonly mentioned themes, each raised by a few respondents at Q16 included negative impacts on those who used peat to grow food and general comments about the need to find alternatives to peat. A few suggested that a ban in Scotland alone would not affect global emissions or may displace the problem i.e. peat being imported from elsewhere in Europe.

In Q20, a few stated a belief that a ban could help promote the development of alternatives and without the impetus for new research and development, producers would remain reliant on peat.

6. Impact on the whisky industry

The importance of peat to Scotland's whisky industry was noted repeatedly across consultation questions, primarily by organisations in the sector but also by a small number of individual whisky consumers. The qualitative analysis of these comments is presented in this chapter.

When asked at Q11 if they could stop using peat now, some whisky organisations noted that peat-smoked malted barley was the only way to achieve the distinctive phenols in peated whisky. A ban on the sale of peat would mean they are unable to make whisky using peated malted barley, which would result in the closure of distilleries with a loss of jobs in remote rural communities. Diageo highlighted that traditional methods of malting using peat smoke are centuries old, and are used in producing 80% of all Scottish Whisky sold worldwide which generates approximately £4.4 billion for the UK economy.

> "The use of peat in the malting process is an essential component in the production of many Scotch Whiskies, including in the vast majority of Blended Scotch Whisky and all peated Single Malt Scotch Whisky… A total ban on peat would have huge consequences for jobs in the Scotch Whisky industry. Distilleries, bottling plants, warehouses and other facilities tied to the industry are significant employers and bring many high-quality jobs to the communities in which they operate. The Scotch Whisky industry alone supports over 42,000 jobs in Scotland. Over 11,000 of these are direct employees of distilleries. In rural communities specifically, the industry supports upward of 7,000 jobs … Without [peat], the majority of scotch whisky could not be produced, and this would lead to the end of many key brands and numerous jobs across Scotland." – The Scotch Whisky Association

Many argued at Q15 that the whisky industry should be exempt from a ban on the sale of peat. A lack of an alternative to peat was highlighted as a particular challenge for the industry. Other reasons included that peat use for whisky is a small proportion of total peat usage and the potential negative impact on Scotland's economy. A few suggested the industry could be exempt, but tighter controls should be in place.

> "[Stopping using peat] would only be possible if a viable alternative to peat was found that gave the same flavour profiles and was acceptable for use within the regulations that exist for Scotch Whisky production. Although research is taking place, this is not looking to be a likely prospect for some time." – The Malters' Association of Great Britain

Conversely, a few individuals noted the sector would be affected but should be included in the ban.

> "I don't necessarily feel that the whisky industry and local peat burning should be exempt, but I do feel they require a longer-term, just transition" - Individual

The Maltsters' Association of Great Britain suggested that exempted industries, e.g. whisky producers, might face negativity and called for public awareness work to emphasise the importance of peat to the industry and economy.

7. Impact on people using peat for fuel and on island communities

Using peat as a domestic fuel source was raised repeatedly throughout the consultation, both by the 55 respondents who indicated they use peat for fuel and by other respondents. To avoid repetition in this report, the key themes of this issue are detailed in this chapter.

While not all those who use peat for fuel live in island communities or have low incomes, many of the same themes were also evident in responses to Q25 and Q24, which asked respondents to outline impacts arising from the consultation on these groups. Analysis of responses to these questions is also included in this chapter.

Considerations for those using peat for fuel

The importance of peat as a fuel source

The need to use peat as an affordable and reliable heat source in remote rural areas, including the Hebrides, Shetland and Orkney, was highlighted by many individuals. Comments suggested these households relied on using peat e.g. peat is used as ‘a primary source of heating’, islanders have a ‘greater dependency on peat as a fuel’, or peat being ‘a necessity for a lot of people’.

Many described why peat was used or preferred as a fuel. Fuel poverty was a recurring theme, with many mentioning that people in remote and island communities were more likely to be in fuel poverty and to rely on the use of peat as an affordable heating source.

Alternative energy sources were considered difficult to source, use or cost more; gas and electricity are not always available in remote or off-grid areas, while coal and wood may be more expensive due to transport costs or be in limited supply. Others felt alternatives did exist and should be used, for instance, harnessing renewable energies such as wind, solar and wave power.

Poor insulation or quality of some houses combined with bad winter weather was raised by several. Capital costs of adapting older houses with new heating systems or better insulation were felt out of the reach for many householders using peat as a primary heating source, whilst some reported they are not connected to the mains gas grid.[9].

[9] Approximately 12% of dwellings in Scotland are estimated to be outside the coverage of the gas grid. Source: https://www.gov.scot/binaries/content/documents/govscot/publications/statistics/2023/05/scottish-house-condition-survey-2021-key-findings/documents/scottish-house-condition-survey-2021-key-findings/scottish-house-condition-survey-2021-key-findings/govscot%3Adocument/Scottish%2BHouse%2BCondition%2BSurvey%2B2021%2BKey%2BFindings.pdf

"Properties are often old and hard to heat. Other means of heating properties will have a much higher ongoing cost as well as significant initial costs in upgrading the heating system, plumbing, tanks, etc." - Individual

"Poor quality, poorly insulated housing needs reliable heat and therefore if use of peat was stopped it would be very expensive to find an alternative which is affordable on the Western Isles." - Individual

Similarly, some noted that peat as fuel was helpful for remote and island communities during times of emergency. Examples of storms preventing ferry access to the Islands or causing power cuts were most frequently given. An unstable power supply, limited availability of alternatives and fuel poverty also meant some living on the Islands depended on peat throughout the year, either to top up other forms of fuel used or to act as a backup when power supplies are disrupted.

Potential impacts of a ban on peat sales

Given the challenges and higher costs associated with alternatives outlined above, many argued that a ban on peat sales for fuel, limiting the availability of peat for domestic use, could exacerbate fuel poverty.

"The poorest people in the Highland region will suffer the most if there is a ban on selling peat. Peat has not only been traditionally used to heat our homes for generations, but it still provides the most cost-efficient way to heat our homes due to how long and hot it burns in conjunction with coal. Removing the ability to buy peat for heating would devastate communities in the Highlands and put the lowest-income homes at risk of not being able to heat their homes due to the price of coal and wood. Peat offers a cheaper alternative to supplement coal and wood." – Individual

"In general, most crofters live on a very limited budget and would find it hard to maintain their lifestyles without the use of peat for domestic heating purposes." - Sandness and Walls Community Council

"Customers for our fuel peat are generally on lower incomes. Those that cannot afford to just put their central heating on whenever they feel like it. It is unfair to ban a fuel they rely on but to allow those that can afford malt whisky to still use peat. Large proportion of fuel peat users are rural dwellers who don't have access to town gas and have older, poorly insulated homes." - Northern Peat & Moss Ltd

Some respondents, almost all individuals using peat for fuel, argued that switching to a peat-free alternative would be no better, and possibly worse, for the environment.

"Peat use is on my doorstep - everything else contributes massively to climate impact... My peat comes from less than a mile. It cooks my food, heats my house, heats my water, dries my clothes. It keeps me independent of the global system that is wrecking the planet." - Individual

A few noted a ban would impact those in rural communities using peat for heating, though still felt it should proceed, with support offered to transition to other sources.

Cutting peat for own use

Retaining peat use amongst crofters or people cutting their own peat was advocated by many. However, these comments typically suggested respondents' misunderstanding that a ban on all peat use was proposed rather than a ban on selling peat only.

Respondents highlighted that cutting and using peat for fuel in the Highlands and Islands was part of a 'long-standing tradition' and 'as per our custom and culture'. In addition to cultural preservation, the practice was considered integral to some people's lives, e.g. as an affordable fuel source or because crofters' homes were unsuitable for renovation. Suggestions of those who could be exempt from the use or sale of peat varied; for instance, those who cut their peat, those heating older domestic properties with solid fuel fires, those using peat for private domestic heating and those for whom there is no alternative fuel source.

When asked about exemptions at Q15, only some respondents specifically commented on the sale of peat for fuel. Views were mixed, with half calling for a ban and half advocating exemption. One individual argued both for a ban and for private peat cutting rights to be rescinded, with processed biomass pellets distributed at similar prices as an alternative while heating systems and insulation are upgraded. Another queried whether paying someone to cut their peat if they became unwell would constitute a peat 'sale'.

"I support peat being protected with some measures, i.e. no horticultural sales, however, I cannot support a peat sale ban that would mean people cannot heat their homes." – Individual

"I agree with banning horticultural use, but very strongly disagree with a total ban. I see from my own experience that an all-out ban including fuel for crofting communities would be harmful and would make life impossible for some." – Individual

Impacts on island communities and socio-economically disadvantaged areas

Q25. Might any outcomes arising from this consultation have any positive or negative impacts specific to island communities?

Almost half of respondents answered Q25. The most prevalent theme was that islanders using peat for fuel would be impacted, as outlined above. Other themes were that there would be no impact, discussion about the impact on the environment and economy of the islands, and that transitional support would be required.

No anticipated impacts

The second most prevalent theme was that the proposals would have no impact on island communities. Few gave detailed responses; singular comments included that there would be no different impact on Island residents compared to others living in Scotland or that any impacts should not deter the Scottish Government from implementing a ban.

Positive environmental impact

The main positive impact of a ban, mentioned by many respondents, was on the environment, notably improving the ecosystems and biodiversity of peatlands and mitigating the effects of climate change. For instance, some highlighted the risk of rising water levels around the Scottish Islands. Some also suggested there would be increased opportunities for eco-tourism or to maximise the use of peatlands for renewable energy production, aquaculture, flood protection and water purification. A few also highlighted environmental gains through reduced peat extraction or pollution from distilleries.

Negative economic impact

Potential economic losses were noted by many, notably in the whisky industry. Distillery closures and the loss of local jobs were the main considerations. A few also mentioned the loss of local income from peat extraction or of jobs in peat extraction. One suggested there might be economic benefits to Island communities if small-scale peat use for speciality products was retained at very local levels.

Transition support to offset impact

Many called for financial and other support to facilitate the transition away from peat, most notably for individuals. Suggestions included helping people on lower incomes heat their homes using low-carbon energy, awareness campaigns and providing grants for installing alternative heating systems. Some called for greater compensation to replace lost income for local peat extractors, to encourage tourism or to increase support for renewable energies, e.g. via grants for tidal wave generation or to consider the regulatory and pricing regime around locally generated renewable energies.

Other themes

Many respondents commented on the use of peat as a household resource and peat cutting as a traditional way of life amongst those living in remote parts of Scotland. Several also highlighted that the proposals should not impact cutting for personal use. Some cautioned that negative impacts should not detract from reducing peat use, given the environmental imperative. A few felt Islanders should be consulted for their views or that companies should offset their peat use by investing more in environmental initiatives.

Q24. Could any outcomes arising from this consultation have any positive or negative impacts on those on low incomes or in socio-economically disadvantaged areas?

Q24 was answered by 281 respondents, with a range of opposing views expressed. The most prevalent theme in comments was that there would be no impact to those on low incomes or in socio-economically disadvantaged areas. While many did not explain why, a few who provided greater detail did so in the context of horticulture. Potential increases to growing and gardening costs were highlighted by many as a concern. This included impacts on both hobby gardeners and crofters or people who grow their own food to counter increased living costs. Others thought a ban could benefit the economy by increasing the market for peat-free alternatives.

"Peat free alternatives from post-consumer waste are competitive with composts that contain peat." – Individual

"Those on low incomes growing to supply food for their families should be considered if peat alternatives are expensive." – Individual

Conversely, many respondents stated there would be an impact but did not explain why.

The second most prevalent theme was the negative impact of higher fuel costs on socio-economically disadvantaged areas. This has been discussed earlier in this chapter.

Many respondents argued that socio-economically disadvantaged areas would be more negatively impacted if climate change was not stopped. Respondents suggested that those with fewer resources and less money may be less resilient to changing environmental impacts.

"Peat extraction often occurs in relatively disadvantaged areas, but these areas could benefit from increased eco-tourism based around peatlands which would provide a more sustainable basis for the economy than peat extraction. Most extraction sites only operate for some of the year (fortunately!), so do not provide long-term employment. Living with the environmental degradation of peat extraction just perpetuates disadvantage." - Individual

8. Environmental considerations and impacts

Two questions – Q5 and Q21 – focused on the environmental impact of using peat and banning the sale of peat. However, related themes were also raised in response to other questions. This chapter presents an analysis of these environmental themes.

Q5. Do you consider environmental impacts when using peat? If so, please explain your concerns and the measures you take to avoid using peat.

Base	n=	% Yes	% No
All answering	491	92	8
Individuals	428	91	9
Organisations	63	97	3

The vast majority of respondents - 91% of individuals and 97% of organisations - stated that they consider environmental impacts when using peat. Only two types of respondents recorded more than 10% who do not consider the environment – 32% of individual peat extractors/fuel users and 17% of other individuals.

Qualitative responses to Q5 fell into three broad categories: an awareness of the impact of using peat on the environment, how respondents avoid using peat, and problems encountered with peat-free alternatives. The first two areas accounted for most responses.

Awareness of the environmental impacts of using peat

While many commenting at Q5 did not elaborate on their considerations, others provided greater detail about their usage of peat and decisions they have made after considering the impact on the environment.

Many mentioned the role peat has in storing carbon and the negative outcomes of cutting peat. Many others commented on the role peatland plays in maintaining biodiversity in Scotland, and the positive impact restoring peatland would have for wildlife. Preservation of natural heritage and landscapes, and concerns about the degradation of peatlands, were also themes mentioned by many.

"Peat bogs store vast amounts of carbon. Peat can safely lock carbon away indefinitely, providing the peat bog is wet and has not been drained or extracted." – Peat Free April

"As an Ecologist and botanist in my working life, I am aware of the biodiversity and other environmental benefits of protecting and restoring peatland habitat. It always seems counterintuitive to me that gardener's desire to produce an attractive garden is at the same time destroying valuable wildlife habitat. The role of peatlands in combatting climate change by sequestering carbon is also a major factor in the urgent need to move to using alternatives to peat-based composts and other products." – Individual

While respondents spoke about the impact of peat extraction on the environment, some noted that small-scale peat extraction may be more environmentally friendly for some, especially those in rural or island communities, rather than importing and using other fuels.

"I burn peat knowing it's a carbon sink but also know it is more environmentally kind compared to coal when sourced locally. The carbon cycle is local and follows highland traditional heritage. The heat output is good with the whole house (insulated 3 bedroom detached) being heated by a single 5kw multi fuel stove plus air ducting system to move heat throughout the house. The stove / system can heat the house easily 30'c above outdoor temperatures. This method of heating is saving mains gas usage and also electric consumption through heating, cooking & drying appliances. I view peat as an offset to dirtier carbon emitters (mains gas and 'non green' electricity)." - Individual

Several respondents also suggested that while they do consider the environmental factors, cutting peat is a traditional activity that is also a part of cultural heritage.

Peat-free horticulture

Many respondents highlighted their decision to use peat-free products for their gardens or in their businesses to mitigate environmental considerations. Almost half of all respondents to this question said they use peat-free compost. Many suggested they no longer use any peat products, while others are attempting to reduce their use of peat. Homemade composting was highlighted by many as their alternative to allow them to garden peat-free.

"I think peat is a superior product, however, there are some good alternatives available. I try and use good alternatives if they are available and good enough quality." – Individual

"I'm a private gardener, creating a regenerative polyculture home garden, focused on food (edible perennials where possible), native plants/trees and other wildlife friendly gardening elements. I avoid the use of peat-based products, opting for more sustainable options like home composting, home-made comfrey fertiliser, soil association approved coconut coir etc. I also take advantage of the free compost provided by the council - and occasionally buy specialist compost from stores e.g. for acid loving plants - but again, I look for peat-free versions." – Individual

One respondent noted that they also search out peat-free whisky.

Barriers to moving away from peat

Examples of a need to continue to use peat despite environmental concerns were provided by many. This ranged from using peat as a fuel source, which is discussed in greater detail in Chapter 7 and for the whisky industry, discussed in Chapter 6. Others continued to use peat as they felt alternatives were of poorer quality, more expensive and less available, as described in Chapter 4.

Q21. Could outcomes arising from this consultation have implications, positive or negative, for the environment?

Positive outcomes

Around eight in 10 of the 336 respondents answering Q21 cited positive implications for the environment arising from this consultation. Positive outcomes included, from most mentioned to least prevalent:

- General statements about positive improvements to the environment and climate, without any further detail being provided.
- Better protection for peatlands and more peatland restoration.
- Increased carbon storage.
- Improved biodiversity.
- Flood reduction.

"There would be clear, quantifiable positive environmental impacts of banning peat from decreased carbon emissions from growers to opportunities to restore formerly exploited peatlands. Peat-free growing media have standards to assess their sustainability in more detail, so users can make an informed choice." – Individual

"Implementing these proposals would have significant environmental benefits in relation to climate emissions. Peatlands are the single most important terrestrial carbon store in the UK and Scotland. Our peatlands store several times more carbon than all of our forests put together. Intact peatlands have an important role to play in improving water quality, acting as flood protection, and storing water to act as a reserve during dry periods. However, over 80% of our peatlands are degraded meaning they are currently emitting carbon rather than absorbing it, as well as contributing to poor water quality… ending the demand for peat extraction and facilitating expanded peatland restoration would also result in significant biodiversity benefits." – Stop Climate Chaos Scotland

In Q16 - Will your business be affected by a peat ban? - Several respondents highlighted an environmental impact arising from a ban on selling peat. Half mentioned positive benefits, with a few explicitly stating that a ban would align with their organisation's mission statement or that Scotland could lead the way globally.

Potential related economic benefits were also mentioned by small numbers, including improvements to the circular economy, increased research into peat-free alternatives, and new economic avenues opening up for non-peat-related businesses.

"I see a ban on peat bringing in a positive change. Instead of employing companies to extract peat, companies will be employed to restore peatlands and make a positive change to our planet. Restored peatlands could also benefit from employing all manner of persons, including peatland restoration professionals, ecologists and wildlife specialists, carpenters and builders who could create boardwalks over peatlands, tour guides, cafe owners, etc." - Individual

One organisation called for more action to deliver local composting.

> "We'd also like to see more opportunities for semi-commercial community composting operations to be supported to collect and compost green waste providing job opportunities. There is very mixed provision of local authority green waste schemes and some great examples of local solutions to green waste recycling from within our network, however for these solutions to be scaled up where there is no existing local authority provision, community groups require support and resource to do so." – Community Growing Forum Scotland

Negative outcomes

Just over one fifth of respondents in Q21 highlighted negative environmental outcomes possibly arising from the consultation. Most common was the environmental impact of transporting or using alternatives, including the carbon footprint of transportation, the possibility of introducing pests and diseases from using coir or alternative growing media, and the use of fuels with a worse environmental footprint in rural and island communities.

> "Most non-peat-based compost is imported, often at considerable distance. Whilst banning peat sales is good for Scotland there is an increase in the fuel mileage burden of importing non peat-based products. It's not sufficient to reduce the carbon footprint by banning the sale of peat then replacing that footprint with a transportation carbon footprint. Better alternatives to peat need to be sourced at a more local level" – Individual
>
> "Two-thirds (66%) of businesses will need to increase their water-use given the different irrigation and nutrition requirements for peat-free grown plants." - Growing Media Taskforce

Some identified negative environmental impacts at Q16 including reduced work experience opportunities in maintaining peat banks and the countryside, undermining conservation achieved by traditional crofting, and greater use of less sustainable substrates. Two horticultural trade organisations highlighted that there could be greater water use given different irrigation and nutrition requirements for other growing media.

A few organisations, including the Peat Alliance and Growing Media Europe, highlighted how a ban on peat for horticulture could hamper other climate change mitigation. For example, cities need to be made greener to adapt to climate change, plants are needed to reforest destroyed forests, and Peat Alliance noted that the European Union has set a target to plant 30 million trees by 2030 but argued that this is unachievable without peat as a growing medium. These organisations also noted that global food security and supply chains have become more important during the pandemic and the war in Ukraine and that a ban on horticultural peat use could create further food insecurity due to lower yields and disrupted supply, and significantly increase demand for non-peat media.

Non-environmental concerns were highlighted by a few, such as increased crime, a negative impact on culture and heritage, and depopulation of rural areas.

9. Other considerations

This chapter presents the analysis of responses to a small number of questions which explored other outcomes which could arise from the consultation.

Q22. Might outcomes arising from this consultation affect one age group more than another, either in a positive or negative way?

No particular age group more than another

Of the 239 respondents who answered Q22, the most common theme was that it would not affect any one age group more than another. Many respondents stated there would be no impact without providing any further details. However, many others argued that the proposals would affect all age groups equally, because:

- positive impacts on the environment would improve the lives of all people.
- negative impacts on the cost of food and fuel would increase poverty, especially fuel poverty, for all age groups.

"All age groups affected when considering food production. All age groups affected when 'peat heat' is no longer available if no suitable 'green' substitute is offered." - Individual

A small number stated that while they acknowledge the impact it may have on specific age groups, protecting the peatland is more important.

Older people

Respondents commonly suggested that older age groups may be most affected. Many noted a traditional dependence on peat as a fuel source among older people in remote rural communities, with a ban negatively impacting fuel poverty rates among this age group. Others noted that older people are more likely to garden and need to adapt their gardening techniques following a ban. Several suggested that older people may be less open or resilient to change, preferring traditional methods and uses of peat.

"Older generation may be negatively affected as peat use is traditional and it can be hard to change ways and try new things. But if the changes are encouraged with signposting of where to find alternatives then the transition can be easier for them." – Individual

Younger generation

Many argued that the younger generation, and future generations, would benefit from the positive environmental consequences of banning the sale of peat. One organisation argued that the younger generation could lose traditional skills in peat cutting.

"Anything we can do to mitigate climate change will benefit everyone but especially the young - who will be around longer!" – Individual

Q23. Might any outcomes arising from this consultation have any positive or negative impacts on data protection or privacy?

Q23 was answered by 165 respondents. Almost all either stated there would be no impact on data protection or privacy arising from the consultation without providing more detail, or stated that they did not know if there would be an impact.

However, specific impacts detailed by a few included: a danger of privacy breaches for people owning properties with peat banks, more controlled monitoring of composting, and impacts on businesses that may need regulation or inspection to ensure compliance with a sales ban. A few others suggested that if data were protected correctly, there would be no impact on privacy.

"Ensuring that businesses, producers and some sectors (private estates, for instance) comply with legislation may require inspection or other active regulation which may have privacy impacts - however these are overridden by the public interest, justice and environmental impacts that would arise from these areas evading or avoiding a ban on peat use." – Common Weal

Q26. Please use this space for anything else you'd like to tell us in relation to ending the sale of peat.

295 respondents answered Q26. Responses covered many themes, some of which of which have already been detailed elsewhere in this report. These include:

- Many reiterated their support for a ban on peat for climate and environmental reasons – see Chapter 8.
- Considering the impact on those who use peat for fuel was mentioned by many – see Chapter 7.
- The availability and reliability of alternatives were mentioned both positively and negatively by respondents – see Chapter 4.
- Some reaffirmed the importance of peat to the whisky industry and argued that a ban for this sector should not proceed – see Chapter 6.

A ban is needed now

The most common theme in response to Q26, mentioned by almost one third, was for a ban on peat to happen immediately or as soon as possible. Some noted that while they are already peat-free or have been working toward becoming so, they argued that any remaining peat users would continue to use peat unless strict controls are introduced. Others highlighted that peatland restoration can only go so far if people are still cutting peat.

"A ban on commercial peat extraction and sale should be put in place as quickly as possible. The Scottish taxpayer is currently funding the restoration of large areas of degraded peatland while peat extraction still continues for commercial gain. The Scottish Government need to realise that this is not a sustainable way to manage peatlands and take action to stop any further extraction of peat." – Individual

Careful consideration

Further thought about the impacts and the different methods of introducing a peat ban was advocated by several respondents. This included ideas for a phased introduction and suggestions that banning peat, while necessary, could significantly impact certain groups.

Several respondents provided ideas to mitigate possible impacts, such as community or council composting and ensuring compost is local and not imported. Some specifically mentioned education and ensuring gardeners and producers understood new developments, techniques and uses of peat-free growing media.

Building on peatlands

The approval of other uses of peatland was highlighted as problematic and counterintuitive by some in response to Q26 and other questions. Most of these respondents criticised wind farms being built in Shetland which have required significant peat extraction.

"While ending the sale of peat for the purposes indicated is laudable (if long overdue) it will be largely cosmetic in terms of its impact on tackling loss and damage to our peatlands… Perhaps even more frustrating, as it is technically more readily avoidable, is the loss of peat and peatland habitat to wind farms and electricity transmission infrastructure. Our renewable energy comes at a great cost to the very resources we claim to be safeguarding and restoring. We even have a new space hub joining the list of developments being built in an area of, and at the expense of, high quality peatland. Only when we either stop approving such developments, or ensure and enforce meaningful compensation, will we be able to consider that we are doing something meaningful to safeguard our peatlands and the many benefits that healthy peatlands provide." – Individual

"I agree about ending industrial peat extraction, but that rule seems to have been ignored while the peat hills in Shetland were cut to pieces building the wonderful "Green" windfarm. More carbon has been released there than anything I or any other small peat cutter could ever do in a thousand lives." - Individual

Less commonly mentioned themes

Some respondents each mentioned the following themes:

- Respondents provided other suggestions for legislation, including to ensure Scottish peat is not exported; reducing peat use where it is non-essential; labelling requirement on growing media; and ensuring commercial extractors of peat offset the carbon emissions.
- Comments on the consultation, including that the consultation is biased or working toward an agenda. Growing Media Europe, Peat Alliance and International Peatland Society criticised the stance of the consultation and the quality of the

Strategic Environmental Assessment, with the latter stating that their response to the consultation aimed to “correct the incorrect statements and inferences introduced by misrepresentation of the scientific facts and the lack of them.”

- Suggestions to engage further with stakeholders and community members, specifically regarding the lost cultural heritage of peat cutting.

Conclusions

A range of individuals and stakeholders with detailed knowledge took part in the consultation, sharing their views on the use and labelling of peat-based products and the impact of ending the sale of peat in Scotland. Reflecting their experience and perspectives, this report provides a high-level summary of the consultation responses. For more detail, readers are encouraged to look to individual responses where permission was given for publication[10].

At an overall level there was support for a ban on the sale of peat and peat-containing products in Scotland, with the majority of supporters agreeing it should be introduced within the next few years or as soon as possible. The environmental consequences of not preserving peatlands were commonly highlighted as a reason for this stance.

However, views were more nuanced depending on respondents' use of peat. Among the large number of individual hobby gardeners who responded, there was broad support for ending the use of peat in amateur and retail horticulture. Many highlighted that they no longer use peat and actively seek peat-free alternatives, which they felt were readily available, and there was a widespread view that peat is not necessary for propagation.

This view was not unanimous, with some hobby gardeners and many commercial growers arguing that peat remains essential when growing certain species, in particular ericaceous plants, and in producing food crops such as potatoes and mushrooms. Several argued the quality of the alternatives is too poor to switch from peat to another growing medium.

Potential negative impacts on businesses were noted by many. These included the absence or limited supply of alternatives to peat, cost implications of researching, sourcing and trialling alternatives, and increased wastage and crop failure. For some, these challenges could pose a threat to the future of their business.

The potential negative consequences of a ban affecting the whisky industry were highlighted, as Scotch whisky has an important economic value and The Scotch Whisky Association estimates peat is commonly used in around 80% of Scotch whisky production. Impacts noted by respondents included the loss of sales, exports, the closure of distilleries, and the associated impact on local areas.

Many considered the proposals from the perspective of those using peat as a domestic fuel. While the consultation does not propose a ban on personal peat cutting, concerns were expressed that a ban on the sale of peat could lead to increased fuel poverty as alternatives to peat were considered to be too costly and less environmentally friendly.

While many, particularly hobby gardeners and environmental organisations, called for a ban on the sale of peat completely with no exemptions, many others advocated for exemptions for certain businesses or sectors given the reasons above.

[10] Responses are published on the Scottish Government's consultation website: https://consult.gov.scot/

In summary, among individual hobby gardeners there is broad support for introducing a ban on the sale of peat in Scotland. Among organisations, however, support was more limited and several negative impacts were anticipated. Professional growers expressed concerns about increased production costs and supply chain issues. Those involved in the whisky industry noted the importance of peat in production and the challenge of finding an alternative, highlighting the negative economic impact of a ban. Many argued that a ban on peat sales for domestic fuel use could exacerbate fuel poverty.

Summary of main findings

- Over two thirds (69%) stated they could stop using peat, with individuals more likely than organisations to say they could stop (74% compared to 43% respectively). The two main reasons why respondents felt they could not stop using peat were the limited availability of alternatives (60%) and the cost implications (56%).
- Overall, three fifths (62%) indicated that there should be a ban on all or most peat sales, with a further 12% supporting a ban on all horticultural peat sales.
- The highest support for a ban on all/most sales was among environmental organisations (80%) and hobby gardeners (76%), many of whom argued that the sale of peat should be banned completely, including in horticulture. Over half (58%) of professional gardeners / commercial growers favoured a ban on all or most sales, as did 50% of retail plant sales organisations.
- The most common year suggested for introducing a ban on the sale of peat for retail horticulture was 2023; around four fifths suggested a date by the end of 2025 at the latest. Organisations involved in professional horticulture preferred a later date of 2028-2030, assuming conditions were in place such as the availability of sufficient quantities of consistent, high-quality, environmentally friendly alternatives, ongoing research and development and further investment and support in machinery and technology innovations.
- Over four fifths (83%) of organisations indicated they would be impacted by a ban on the sale of peat; one quarter (26%) would be positively impacted, and 57% negatively impacted. All whisky organisations and 88% of growing media organisations anticipated negative impacts. Frequently mentioned adverse effects included supply chain issues and increased costs, challenges maintaining growing capacity and quality, and potential closure of businesses.
- The whisky industry was most likely to suggest an industry exemption, with the lack of an alternative to peat highlighted as a particular challenge for the industry. Other businesses for which exemptions were proposed included commercial growers currently more reliant on peat-based growing media, including agriculture and tree planting businesses, historic properties, botanical gardens and science agencies. Some respondents felt exempted businesses should be subject to additional regulations.
- Many argued that a ban on peat sales for fuel, limiting the availability of peat for domestic use, could exacerbate fuel poverty, particularly in rural and island communities.

Appendix A: Quantitative Summary

The following tables outline the results for each of the closed questions in the consultation. Please note that the row percentages may not add to 100% due to rounding.

For each question the following tables show:

- The number of respondents from the total sample of 552 respondents who selected each response, and the corresponding percentage.
- The number and percentage response among those who answered each question, broken down by:
    - Individual and organisation responses.
    - By type of respondent.

Q3. How many employees are there in your organisation?

Base	% Organisations
(n=)	83[11]
<10	35
10-49	12
50-249	7
250+	23
Not answered	23

[11] This does not include the 13 individuals classed as Professional gardener / commercial grower.

Q5. Do you consider environmental impacts when using peat?

Base	n=	% Yes	% No	% No answer
All respondents (n=)	552	452	39	61
All respondents (%)	552	82	7	11
All answering (%)	491	92	8	-
Individuals	428	91	9	-
Organisations	63	97	3	-
Individual - Hobby / Private Gardener	309	97	3	-
Individual - Peat extractor / fuel for domestic use	53	68	32	-
Individual – Other	53	83	17	-
Professional gardener / commercial grower	27	93	7	-
Organisation - eNGO	8	100	0	-
Organisation - Retail plant sales	13	100	0	-
Organisation - Growing Media	8	100	0	-
Organisation - Whisky	8	100	0	-
Organisation - Other	12	92	8	-

Q6. Is it easy to find alternatives to peat in your local retail outlet?

Base	n=	% Yes, they are readily available and clearly labelled	% They are there but I need to scrutinise packaging to find them	% I often find it hard to tell what is contained within products	% I find it very difficult to find alternatives	% I actively seek products containing peat and do not wish to use alternatives	% I don't consider what growing media is contained within products	% Other (please specify)	% No answer
All respondents (n=)	552	166	157	41	39	28	3	64	54
All respondents (%)	552	30	28	7	7	5	1	12	10
All answering (%)	498	33	32	8	8	6	1	13	-
Individuals	441	34	33	9	8	6	1	9	-
Organisations	57	30	18	2	9	0	0	42	-
Individual - Hobby / Private Gardener	334	38	39	10	4	6	0	3	-
Individual - Peat extractor / fuel for domestic use	44	11	7	0	30	9	2	41	-
Individual – Other	50	30	18	10	12	8	2	20	-
Professional gardener / commercial grower	27	11	30	7	19	4	0	30	-
Organisation - eNGO	9	33	33	0	0	0	0	33	-
Organisation - Retail plant sales	10	70	10	0	0	0	0	20	-
Organisation - Growing Media	7	57	0	0	0	0	0	43	-
Organisation - Whisky	5	0	0	0	20	0	0	80	-
Organisation - Other	12	17	25	8	8	0	0	42	-

Q7a. When buying growing media, on what do you base your choice? - Performance

Base	n=	% Not important	% Quite important	% Important	% Very important	% No answer
All respondents (n=)	552	15	102	184	158	93
All respondents (%)	552	3	18	33	29	17
All answering (%)	459	3	22	40	34	-
Individuals	409	4	24	43	29	-
Organisations	50	0	6	16	78	-
Individual - Hobby / Private Gardener	328	2	26	46	26	-
Individual - Peat extractor / fuel for domestic use	25	16	8	40	36	-
Individual – Other	43	7	23	33	37	-
Professional gardener / commercial grower	28	0	11	7	82	-
Organisation - eNGO	8	0	0	38	63	-
Organisation - Retail plant sales	11	0	0	9	91	-
Organisation - Growing Media	7	0	0	14	86	-
Organisation - Whisky	1	0	0	0	100	-
Organisation - Other	8	0	25	38	38	-

Q7b. When buying growing media, on what do you base your choice? - Cost

Base	n=	% Not important	% Quite important	% Important	% Very important	% No answer
All respondents (n=)	552	27	169	184	77	95
All respondents (%)	552	5	31	33	14	17
All answering (%)	457	6	37	40	17	-
Individuals	408	7	37	39	17	-
Organisations	49	0	35	47	18	-
Individual - Hobby / Private Gardener	325	7	39	42	12	-
Individual - Peat extractor / fuel for domestic use	27	7	4	37	52	-
Individual – Other	43	2	44	30	23	-
Professional gardener / commercial grower	28	4	29	43	25	-
Organisation - eNGO	8	0	50	38	13	-
Organisation - Retail plant sales	11	0	18	64	18	-
Organisation - Growing Media	6	0	33	33	33	-
Organisation - Whisky	1	0	100	0	0	-
Organisation - Other	8	0	63	25	13	-

Q7c. When buying growing media, on what do you base your choice? – Consistent product quality

Base	n=	% Not important	% Quite important	% Important	% Very important	% No answer
All respondents (n=)	552	19	110	201	125	97
All respondents (%)	552	3	20	36	23	18
All answering (%)	455	4	24	44	27	-
Individuals	405	5	26	47	22	-
Organisations	50	0	6	22	72	-
Individual - Hobby / Private Gardener	325	4	28	48	20	-
Individual - Peat extractor / fuel for domestic use	25	8	16	52	24	-
Individual – Other	42	7	24	40	29	-
Professional gardener / commercial grower	28	0	11	29	61	-
Organisation - eNGO	8	0	0	50	50	-
Organisation - Retail plant sales	11	0	0	18	82	-
Organisation - Growing Media	7	0	0	0	100	-
Organisation - Whisky	1	0	0	0	100	-
Organisation - Other	8	0	25	25	50	-

Q7d. When buying growing media, on what do you base your choice? – Environmental consequences

Base	n=	% Not important	% Quite important	% Important	% Very important	% No answer
All respondents (n=)	552	20	34	53	356	89
All respondents (%)	552	4	6	10	64	16
All answering (%)	463	4	7	11	77	-
Individuals	412	5	7	10	79	-
Organisations	51	0	12	25	63	-
Individual - Hobby / Private Gardener	331	2	5	8	85	-
Individual - Peat extractor / fuel for domestic use	25	32	16	36	16	-
Individual – Other	43	16	19	5	60	-
Professional gardener / commercial grower	28	0	7	25	68	-
Organisation - eNGO	9	0	0	0	100	-
Organisation - Retail plant sales	11	0	0	36	64	-
Organisation - Growing Media	7	0	29	43	29	-
Organisation - Whisky	1	0	0	0	100	-
Organisation - Other	8	0	25	13	63	-

Q7e. When buying growing media, on what do you base your choice? – Brand loyalty

Base	n=	% Not important	% Quite important	% Important	% Very important	% No answer
All respondents (n=)	552	382	44	15	7	104
All respondents (%)	552	69	8	3	1	19
All answering (%)	448	85	10	3	2	-
Individuals	400	88	8	3	1	-
Organisations	48	63	29	4	4	-
Individual - Hobby / Private Gardener	321	91	6	2	1	-
Individual - Peat extractor / fuel for domestic use	24	71	17	8	4	-
Individual – Other	42	79	14	2	5	-
Professional gardener / commercial grower	27	70	19	11	0	-
Organisation - eNGO	8	100	0	0	0	-
Organisation - Retail plant sales	10	50	30	10	10	-
Organisation - Growing Media	7	29	71	0	0	-
Organisation - Whisky	1	0	0	0	100	-
Organisation - Other	8	75	25	0	0	-

Q8a. Is the information provided on growing media packaging (e.g. printed on bags of compost) or signage sufficient to allow you to make an informed decision regarding the environmental impact of its contents?

Base	n=	% Yes	% No	% I don't look at information on packaging/ signage	% No answer
All respondents (n=)	552	134	301	44	73
All respondents (%)	552	24	55	8	13
All answering (%)	479	28	63	9	-
Individuals	435	28	62	10	-
Organisations	44	27	68	5	-
Individual - Hobby / Private Gardener	336	27	69	4	-
Individual - Peat extractor / fuel for domestic use	36	50	14	36	-
Individual – Other	50	22	46	32	-
Professional gardener / commercial grower	25	20	76	4	-
Organisation - eNGO	7	14	86	0	-
Organisation - Retail plant sales	9	22	78	0	-
Organisation - Growing Media	5	60	40	0	-
Organisation - Whisky	1	100	0	0	-
Organisation - Other	10	20	70	10	-

Q8b. Is the information provided on growing media packaging (e.g. printed on bags of compost) or signage sufficient to allow you to make an informed decision regarding whether growing media contains peat?

Base	n=	% Yes	% No	% I don't look at information on packaging /signage	% No answer
All respondents (n=)	552	281	164	36	71
All respondents (%)	552	51	30	7	13
All answering (%)	481	58	34	7	-
Individuals	435	58	34	8	-
Organisations	46	65	30	4	-
Individual - Hobby / Private Gardener	335	61	37	1	-
Individual - Peat extractor / fuel for domestic use	36	56	8	36	-
Individual – Other	51	37	31	31	-
Professional gardener / commercial grower	25	56	40	4	-
Organisation - eNGO	8	38	63	0	-
Organisation - Retail plant sales	9	89	11	0	-
Organisation - Growing Media	6	100	0	0	-
Organisation - Whisky	1	100	0	0	-
Organisation - Other	10	40	50	10	-

Q9. Do you think there should be more information about the growing medium present in potted plants at the point of sale?

Base	n=	% Yes, so I can make an informed decision on what I purchase	% Yes, so I can avoid buying plants in peat	% I don't wish to know what growing medium the plants I buy are growing in	% The plants I buy display information detailing the growing medium used	% No answer
All respondents (n=)	552	181	245	35	10	81
All respondents (%)	552	33	44	6	2	15
All answering (%)	471	38	52	7	2	-
Individuals	425	37	54	8	2	-
Organisations	46	54	35	7	4	-
Individual - Hobby / Private Gardener	332	33	62	4	1	-
Individual - Peat extractor / fuel for domestic use	32	59	6	28	6	-
Individual – Other	48	44	33	17	6	-
Professional gardener / commercial grower	23	43	43	9	4	-
Organisation - eNGO	11	64	36	0	0	-
Organisation - Retail plant sales	8	63	38	0	0	-
Organisation - Growing Media	5	40	20	40	0	-
Organisation - Whisky	1	100	0	0	0	-
Organisation - Other	11	64	18	9	9	-

Q10. If you are a retailer/grower, how difficult would it be to indicate whether peat is present in growing medium within pots?

Base	n=	% Impossible	% Difficult	% Fairly Easy	% Very Easy	% No answer
All respondents (n=)	552	10	14	14	28	486
All respondents (%)	552	2	3	3	5	88
All answering (%)	66	15	21	21	42	-
Individuals	37	19	19	27	35	-
Organisations	29	10	24	14	52	-
Individual - Hobby / Private Gardener	17	29	12	12	47	-
Individual - Peat extractor / fuel for domestic use	7	0	29	57	14	-
Individual – Other	8	25	13	38	25	-
Professional gardener / commercial grower	11	0	27	9	64	-
Organisation - eNGO	5	0	20	0	80	-
Organisation - Retail plant sales	10	20	30	20	30	-
Organisation - Growing Media	3	0	33	33	33	-
Organisation - Whisky	0	-	-	-	-	-
Organisation - Other	5	20	20	20	40	-

Q11a. Could you or your company stop using peat now?

Base	n=	% Yes	% No	% No answer
All respondents (n=)	552	286	128	138
All respondents (%)	552	52	23	25
All answering (%)	414	69	31	-
Individuals	351	74	26	-
Organisations	63	43	57	-
Individual - Hobby / Private Gardener	242	90	10	-
Individual - Peat extractor / fuel for domestic use	49	20	80	-
Individual – Other	47	47	53	-
Professional gardener / commercial grower	28	61	39	-
Organisation - eNGO	9	89	11	-
Organisation - Retail plant sales	12	42	58	-
Organisation - Growing Media	8	25	75	-
Organisation - Whisky	8	0	100	-
Organisation - Other	11	45	55	-

Q11b. If you answered 'no' then why can't you stop using peat now?

Base	n=	% Availability of suitable alternatives	% Cost	% Change in equipment/ machinery required	% Storage	% Performance	% Other (please specify)	% No answer
All respondents (n=)	128	75	70	21	14	46	27	4
All respondents (%)	128	59	55	16	11	36	21	<0.5
All answering (%)	124	60	56	17	11	37	22	-
Individuals	88	51	60	15	9	28	19	-
Organisations	36	83	47	22	17	58	28	-
Individual - Hobby / Private Gardener	23	48	35	4	4	35	13	-
Individual - Peat extractor / fuel for domestic use	38	47	89	21	11	26	13	-
Individual – Other	24	58	38	13	13	25	38	-
Professional gardener / commercial grower	11	82	82	36	0	73	9	-
Organisation - eNGO	1	100	0	0	0	0	0	-
Organisation - Retail plant sales	7	100	43	14	29	71	14	-
Organisation - Growing Media	6	100	100	67	67	100	50	-
Organisation - Whisky	8	63	0	0	0	25	25	-
Organisation - Other	6	67	17	0	0	17	50	-

Q13. Is peat necessary for propagation (raising a plant from a seed/bulb/corm/tuber/vegetative cutting)?

Base	n=	% Yes (please specify)	% No	% Sometimes (please specify)	% No answer
All respondents (n=)	552	34	296	27	195
All respondents (%)	552	6	54	5	35
All answering (%)	357	10	83	8	-
Individuals	302	6	89	6	-
Organisations	55	31	51	18	-
Individual - Hobby / Private Gardener	244	5	92	4	-
Individual - Peat extractor / fuel for domestic use	19	11	63	26	-
Individual – Other	27	11	81	7	-
Professional gardener / commercial grower	26	27	62	12	-
Organisation - eNGO	11	18	82	0	-
Organisation - Retail plant sales	12	25	42	33	-
Organisation - Growing Media	8	63	13	25	-
Organisation - Whisky	1	0	100	0	-
Organisation - Other	9	11	67	22	-

Q14. Are there any instances where a % of peat should be permitted within a container-grown plant and what are those instances?

Base	n=	% A small percentage should be allowed to account for that which is transferred when replanting propagated material	% A percentage should be allowed, for a finite period of time, to facilitate transition away from peat for certain plants (please specify plant and %)	% None / No instances / 0%	% Other (please specify)	% No answer
All respondents (n=)	552	45	60	103	36	316
All respondents (%)	552	8	11	19	7	57
All answering (%)	236	19	25	44	15	-
Individuals	193	20	24	48	10	-
Organisations	43	16	33	23	37	-
Individual - Hobby / Private Gardener	150	17	23	55	7	-
Individual - Peat extractor / fuel for domestic use	9	44	33	0	22	-
Individual – Other	24	25	25	25	25	-
Professional gardener / commercial grower	19	21	26	32	37	-
Organisation - eNGO	10	0	20	40	30	-
Organisation - Retail plant sales	12	25	33	17	33	-
Organisation - Growing Media	7	29	29	14	43	-
Organisation - Whisky	0	-	-	-	-	-
Organisation - Other	5	0	60	20	20	-

Q15. Should there be a ban on the sale of peat and peat-containing products in Scotland?

Base	n=	% Yes - for all/ most peat sales	% Yes - for all horticultural peat sales	% Yes - for retail horticultural peat sales (amateur/ hobby gardeners)	% Yes - for professional horticultural peat sales	% No	% No answer
All respondents (n=)	552	320	61	24	10	99	38
All respondents (%)	552	58	11	4	2	18	7
All answering (%)	514	62	12	5	2	19	-
Individuals	448	65	11	4	2	18	-
Organisations	66	47	15	9	0	29	-
Individual - Hobby / Private Gardener	330	76	12	4	1	8	-
Individual - Peat extractor / fuel for domestic use	50	6	18	2	10	64	-
Individual – Other	56	45	5	5	5	39	-
Professional gardener / commercial grower	26	58	4	19	0	19	-
Organisation - eNGO	15	80	13	0	0	7	-
Organisation - Retail plant sales	12	50	17	0	0	33	-
Organisation - Growing Media	8	0	13	13	0	75	-
Organisation - Whisky	3	0	67	33	0	0	-
Organisation - Other	14	50	14	7	0	29	-

Q16. Will your business be affected by a peat ban?

Base	n=	% Yes, positively	% Yes, negatively	% No	% No answer
All respondents (n=)	552	29	75	116	332
All respondents (%)	552	5	14	21	60
All answering (%)	220	13	34	53	-
Individuals	159	8	25	67	-
Organisations	61	26	57	16	-
Individual - Hobby / Private Gardener	86	5	7	88	-
Individual - Peat extractor / fuel for domestic use	28	11	61	29	-
Individual – Other	32	9	47	44	-
Professional gardener / commercial grower	29	24	41	34	-
Organisation - eNGO	7	57	14	29	-
Organisation - Retail plant sales	12	42	50	8	-
Organisation - Growing Media	8	13	88	0	-
Organisation - Whisky	7	0	100	0	-
Organisation - Other	11	18	36	45	-

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