

## 10. Public Consultation Questions

A. What are your views on what more could be done to support and enable the switch to peat free horticulture at professional crop production level and consumer level?

*Section 5 of the consultation document lists several alternatives to peat for the horticultural sector.*

*We would urge that adequate scientific and commercial analysis be done in advance to ensure that alternatives:*

- i. do not result in a higher carbon and environmental footprint than using locally sourced peat*
- ii. do not result in currently exploited peatlands being abandoned by commercial operators due to restrictions, thereby losing the opportunity to regenerate peatlands where possible after period of peat extraction, under appropriate licensing regulations*
- iii. do not put at risk Irish mushroom industry due to non-availability of a vital input or*
- iv. where casing peat must be imported increasing the costs and environmental footprint and putting the Irish mushroom industry at a competitive disadvantage*
- v. include an assessment of CO2 capture where peat is partly used to grow crops and*
- vi. include an assessment of environmental benefits of using spent mushroom substrate on arable land*
- vii. include an assessment of environmental, societal and economic gains from growing food and amenity crops in Ireland*

*Possible Supports could include:*

- Fund research into alternative materials*
- Fund capital investment into producing 'synthetic' peat substitute trials and assessment of viability*
- Subsidise use of alternatives, where there is an environmental gain versus using peat*

B. What are your views on alternatives to the use of peat in the Horticultural Industry (from, for example, the perspective of the professional grower or consumer/amateur gardener)?

*Regarding the mushroom sector, there are no current viable alternatives to provide a 'casing'<sup>1</sup> layer to produce mushrooms. Section 6 of the consultation document outlines the unique properties and benefits of peat for horticultural usage.*

*We wish to stress that for the mushroom industry, alternatives discussed in Section 8 of the document are not viable for mushroom production. Peat is not acting as a substrate in mushroom production, and alternatives discussed such as coir, green compost, composted bark and wood fibre are not viable as a casing layer for mushroom production.*

*Research into the production of alternative casing materials have not yet found a viable alternative.*

*Also, the production of such alternatives are not 'carbon free'. Any alternative material, whether natural or 'synthetic' will have its own carbon and environmental footprint. There is*

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<sup>1</sup> den Ouden, 2017

*a danger that alternatives will in fact have a greater environmental footprint than that of locally sourced peat from appropriately licensed and sustainably managed peatlands. The unavailability of casing peat from Irish sources for the mushroom industry in the future, will result in the importation of casing peat from other EU countries at a higher environmental and financial cost than using Irish peat from **appropriately licensed and managed sources**. It will place the Irish industry at a competitive disadvantage. Allied to the risks surrounding Brexit and access to the UK market for c.80% of Irish mushroom production, it is not clear if the Irish industry would survive such a loss of a critical input.*

*Monaghan Mushrooms have undertaken research projects into peat reduction and peat substitution. We are actively implementing a project to reduce the use of casing by as much as 33%.*

*MM have carried out research on using processed Spent Mushroom Substrate (SMS) as a casing layer, but high EC and salt levels result in reduced yields / productivity, offsetting any CO2 gains from not using peat as a casing layer.*

*We have established that we can separate the casing peat from the mushroom substrate layer after production on larger sites, but we need future research to ascertain if this can be reused for casing or for other specialist horticultural purposes., After mushroom growing, the casing peat now contains lime and mycelium. It requires further treatment, processing and perhaps sterilisation. The costs and environmental footprint associated with this additional treatment may be in excess of using casing peat from developed peatlands.*

*This treatment will result in the loss of some of the properties which makes casing peat so suitable for mushroom growing. In addition, there are logistical and mushroom disease risks associated with further handling of this used casing soil, especially on smaller growing units. Valorisation of used casing peat is very challenging and requires further research.*

C. What are your views on whether Ireland should cut back or cease the export of peat for use outside of Ireland even if this would result in job losses in Ireland?

*We note from the consultation document that considerable exports are destined for the UK. It is important to note that the mushroom industry in Ireland, Northern Ireland and the UK is highly integrated. Much of the UK industry is owned by Irish companies. We should be cautious about taking measures that may damage these Irish headquartered companies.*

*Supply chains and marketing outlets are closely aligned both North-South in Ireland and East-West between Britain and Ireland. Damaging one element of the supply chain will have implications elsewhere. We estimate that the UK mushroom industry may import c.60,000m<sup>3</sup> of casing peat from Ireland each year. Our own farms in the UK import c.34,000m<sup>3</sup> of casing peat from Ireland.*

*In addition, we should consider whether such a move to cease or restrict peat exports will in fact have any environmental gain. Alternatives to peat will have an environmental footprint. The importation of peat from Baltic or northern European countries to the UK is likely to have a higher CO2 footprint than casing peat imported from Ireland.*

D. Do you consider that a working group should be established to advise on how best to overcome the barriers to reducing peat use in professional horticultural crop production and in the amateur horticultural market?

Yes.

*Any group must have an understanding that there may be specialist uses of horticultural peat where alternatives are either;*

- i. Unavailable for technical reasons*
- ii. Unavailable for food safety reasons*
- iii. Likely to have a higher environmental effect and / or environmental cost than the use of Irish peat from licensed sources*

*We understand that other EU countries have appropriate licensing and environmental management schemes in place. Some of these envisage continuing use of peat in the horticultural industry.*

*It would be particularly useful if any such group could play a positive role in addressing the disastrous planning and licencing situation in Ireland facing the operators involved in supplying specialist peat products to the horticultural industry.*

*The current scenario, where any large-scale operator is facing anything up to four years delay in obtaining planning and licencing is not tenable.*

*While there may be criticism of past developments and operations in the industry, several of the companies involved do meet licencing or planning requirements in other EU Member States. The current situation can only be described as a systems failure by the Irish planning and environmental licencing authorities.*

*From our knowledge of the situation, it appears that the planning process is entirely unsuited to the environmental management of peat extraction and peatlands management.*

*Appropriate licencing, under the Environmental Protection Agency, must be implemented as a matter of urgency.*

*Irish Food Companies are under pressure from customers to detail the sustainability of their supply chains. The current lacuna in appropriate licencing of Irish peatland and of peat extraction is a real business continuity risk to Irish horticultural producers.*

*Monaghan Mushrooms wishes to play an active part in reducing carbon and GHG emissions as part of our sustainability plan. Appropriate environmental licencing of an essential part of our mushroom growing system will be important to achieve our environmental goals.*

E. If you are in favour of the establishment of a working group, which stakeholder groups do you think should be represented on it?

*It is vital that representation is present from the horticultural sector in Ireland. Stakeholders should include mushroom growers, other edible and non-edible crop growers, producer organisations, representative bodies, produce marketeers, Bord Bia, peat extraction companies, academic and research expertise, EPA and relevant government input.*

F. How do you think that those involved in harvesting peat for horticulture could be compensated for any loss arising from a cessation of this activity (for example, on the basis of the profit loss arising or related to the value in ecosystem services retained/provided)?

*We feel that it is important that employment is maintained in rural areas where peat is extracted. The rehabilitation of used peat bogs will require local labour familiar with the local peatland environment. This should be an opportunity for those displaced from peat extraction and onstream activities to gain future sustainable employment.*

*Can landowners be compensated for CO2 stabilisation and further CO2 sequestration under EU or national schemes?*

*A just transition must be more than a well-meaning slogan.*

*It is important to realise that steps to introduce arbitrary or non-research-based deadlines on commercial usage will have implications well beyond those directly involved in peat extraction and peatland management. Horticulture is the fourth most important sector in Irish agriculture and mushrooms is the most valuable element of commercial Irish horticulture. Inappropriate decisions on peat extraction, even if for the best of motives will put at risk a valuable export orientated industry located in the Borders and Midlands regions. This is an industry that uses poultry litter, straw and casing peat. It is a labour-intensive business. It can be seen as a 'circular economy' business, and a good example of a successful bio-economy industry.*

G. How do you think that those involved in harvesting peat for horticulture could be guided towards alternative activities, for example, developing an environmentally suitable alternative material that could replace peat in professional horticultural crop production?

*There are real challenges for current players being involved in developing alternative materials.*

*Development of alternatives materials to peat are likely to be established either:*

- *nearer to the users of the product or*
- *nearer to where the new raw materials will be available.*

H. What do you consider the value of peatlands to be to (please score out of 100):

Carbon storage	20
Nature conservation	20
The provision of ecosystem services	20
The economy	20
Social and cultural needs	20
	<b>100</b>

*From the point of view of our business, we are concerned with the sustainability of the businesses. To sustain and grow our business, we must do this in a responsible and environmentally sustainable manner.*

I. In your opinion should the use of peat within  
 (i) the amateur horticultural market and  
 (ii) the professional horticultural industry be phased out over the next 3, 5, 10, 15 or 20 years and if so, how should this be done bearing in mind the potential job losses and the difficulties with alternative growing media?

*We do not have expertise or an opinion on the amateur horticultural market. We think that commercial food production should be encouraged, especially where peat is a very small input to a high value added, export orientated, healthy food.*

*Regarding point (ii) please see our reply to Question A above.*

*Monaghan Mushrooms clearly understands its obligations to reducing GHG emissions from the growing of mushrooms. If this is not done with the correct environmental, societal and economic information, we are in danger of damaging or destroying a rural based industry for no environmental gain.*

*Importation of peat, or the foods partly grown on peat, is likely to have a higher carbon footprint than locally produced mushrooms using local sourced casing peat from licensed and environmentally managed peatlands.*

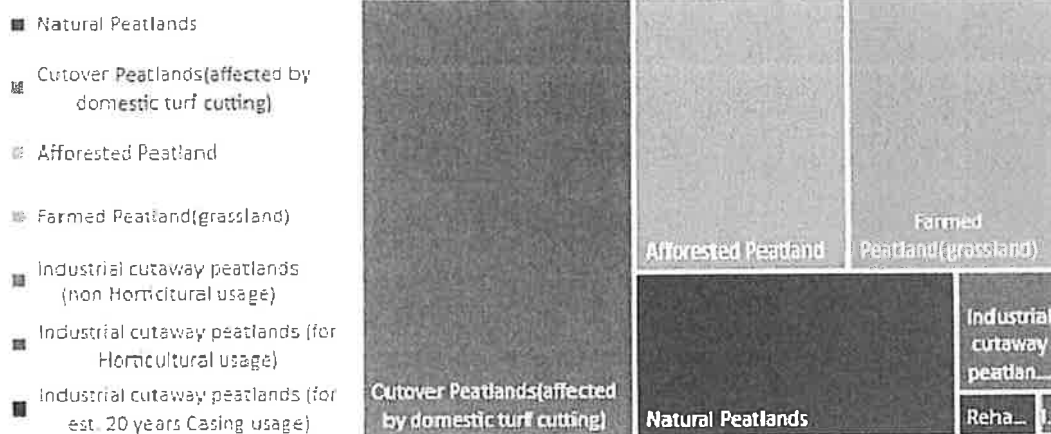
*The consultation document details a total 1,564,650 hectares of peatlands. The entire area used for the horticultural industry is c.5,500 hectares, i.e. 0.35% of the total, and is less than 10% of the industrial cutaway peatlands. Mushroom casing peat represents a very small fraction of these 5,500 hectares. It is probably less than 10 -15 hectares annually.*

**Distribution of the main land use categories of peatlands. (National Peatlands Strategy 2015 – Pg. 5 & 6)**

Natural Peatlands	269,270	ha
Cutover Peatlands(affected by domestic turf cutting)	612,380	ha
Afforested Peatland	300,000	ha
Farmed Peatland(grassland)	295,000	ha
Industrial cutaway peatlands	70,000	ha
Rehabilitated cutaway	18,000	ha

*We estimate that c.200 - 250 hectares of suitable peatland could supply the mushrooms industry with casing for 20 years.*

## Distribution of the main land use categories of peatlands (hectares)



We estimate that that Irish mushroom growers use c.120,000 cubic metres of casing peat per annum, that Northern Ireland growers use c.17,000 cubic metres<sup>2</sup>, and c.60,000 – 65,000<sup>3</sup> cubic metres are used by UK mushroom growers.

While we are not experts in the management of peatlands, it does appear that there are enormous opportunities to rehabilitate vast hectares of cutover peatlands and industrial cutaway peatlands to be carbon sinks<sup>4</sup> in the future. If this can be combined with effective licensing and environmental management of current developed peatlands, there are opportunities to have substantial environmental and CO<sub>2</sub> improvements, while maintaining a viable and resilient horticultural supply industry into the future.

Within a managed programme of peatland rehabilitation, there will be more than enough peat resources in currently degraded peat bogs, to allow for the continuation of a sustainable and environmentally licenced and managed industry supplying peat to the high value added commercial horticultural sector. As highlighted above, relatively modest hectares will allow the horticultural sector to survive in Ireland. Very small areas will allow for sustainable supplies to mushroom growers' farms.

J. Does more need to be done to educate and build consumer awareness of peat free products which are available at retail level?

*We are not familiar with consumer market.*

<sup>2</sup> Sourced in Republic of Ireland



<sup>3</sup> Sourced in Republic of Ireland

<sup>4</sup> Renou-Wilson, F., C. Bullock, J.C. Farrell D. Wilson, and C. Müller. Carbon Restore – The Potential of Restored Irish Peatlands for Carbon Uptake and Storage. Johnstown Castle, Co. Wexford prepared for the Environmental Protection Agency (EPA), 2007.

Submissions may be made in relation to these questions and/or on any other issue considered relevant.

*Please note our comments above with regard to licencing of the industry.*

Yours sincerely,

  
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Director