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Irish Horticultural Peat Industry 2021

Background

Growing Media Ireland Company Limited by Guarantee (GMI) involves the majority of horticultural peat and growing media producers in Ireland (excluding Bord na Mona) in a grouping which contributes to the socio- economic development of rural communities and regions throughout Ireland. The Horticultural Peat industry is largely based in the midlands and west. The members only extract peat from already drained or degraded peatland. GMI support the responsible use of peat for both professional horticulture and the retail market

GMI has acknowledged on many occasions that there are substitutes to peat but currently there are not sufficient quantities of peat alternatives which are available, affordable, sustainable and that meet the quality requirements of growing media. Removing peat based growing media as advocated by some would be catastrophic for the food and horticultural sectors. Sustainability and food security are important considerations and are attracting significant attention in the shift to more plant-based diets. Growing media in all its forms has been the breakthrough technology which lifted horticultural production to new levels of performance in recent decades. This is based mainly on increased output and quality. Productivity and environmental responsibility go hand in hand.

Key Data

- **Area of Peatlands used for Horticultural industry** -1,700 Ha, approx. = 0.12% of total Irish peatlands under production.
- **Employment** – 6,600 full time, a further 11,000 in value added and downstream businesses
- **Employment Value** - € 497m. **Farm Gate Value** - € 437m, **Exports** - € 239m
- **Annual Carbon Emissions** – 186,000 tonnes – released over 100-week period = 0.15 % of projected total Irish emissions in 2020
- **Current Legal position** - Peat harvesting requires Planning Permission and a licence from the E P A. No Company in the sector (including Bord na Mona) has planning permission for the harvesting of peat and would be operating outside the law if they continue to do so.
- **What does this mean** - An enforced shutdown pending receipt of Planning Permission and a valid EPA licence. This process will take between four and five years and will lead the loss of thousands of jobs in rural Ireland. The current legislation is unnecessarily burdensome and disproportionate and will result in an UNJUSTIFIABLE, REGRETTABLE and PERVERSE outcome for the Irish economy and an indigenous industry.

Environmental Consequences during this enforced closure - The current legislation prohibits the carrying out of any work whatsoever, including rehabilitation work and after use management, until Planning Permission is granted and a valid EPA licence is received – this could lead to abandonment and prevent the recreation of valuable post-harvesting peatland habitats.

The shutdown of the industry will have major detrimental employment and economic effects on the mushroom, horticulture (vegetables & ornamentals), tillage, poultry and forestry sectors as follows:

Horticulture. The Irish horticulture sector relies on peat, particularly the mushroom, vegetable and ornamental sectors – there are no viable alternatives available to them. Any cessation of peat production in Ireland would be catastrophic for these sectors, most likely making the production of mushrooms, lettuce and many ornamental crops in Ireland uneconomic.

Mushroom growing. Unavailability of peat from Irish sources for mushroom casing will lead to either the closure of the mushroom industry or the importation of casing material from other EU countries at a higher environmental and financial cost.

Tillage farming. The Irish tillage sector depends on the mushroom compost sector as an outlet for 130,000 tonnes of mainly wheaten straw per annum. This sector already has seen a decline of 20% in planted area since 2008 so a loss of this market would have dire consequences for the sector. Despite the decline in acreage, tillage farming has a farm gate value of €400 million and underpins Ireland's export-orientated livestock, dairy and drinks sectors. The tillage sector has the lowest carbon footprint of the main farming sectors.

The poultry industry depends on the mushroom sector as an outlet for over 50,000 tonnes of chicken litter per year.

Forestry. Farmers involved in farm forestry depend on native tree nurseries for planting material. Peat is the substrate of choice at these nurseries.

An integral part of Government's climate change policy is to expand rather than undermine the Irish horticulture sector. The demise of the horticulture, tillage or forestry sectors in Ireland would certainly hinder Ireland in meeting its objectives and obligations relating to air quality, climate, water quality, nature and the environment.

Replacement by Imports:

Without an indigenous supply of peat raw materials, Irish Horticultural Growers would be wiped out by Dutch plant and mushroom imports. The importation of peat or other raw materials would add costs to the product which would make the industry uncompetitive.

It would also result in higher environmental cost as peat production is shifted from one EU location to another, more distant one, resulting in Irish growers adding thousands of kilometres in higher transport costs to their growing media.

It would be unacceptable and hypocritical to ban the harvesting of peat in Ireland while importing it from another EU or third country.

Alternatives to peat ---GMI believe that the challenge to find alternatives to peat based growing media for horticultural production, which are available, affordable and sustainable and meet both quality and environmental requirements is a significant challenge. In particular finding alternative materials for food production is a significant challenge as food safety is a requirement for ready to eat crops.

Two of the main alternatives to peat have major issues relating to Quality, Health & Safety and their Carbon Footprint arising from their production processes, weight and transport requirements.

Composted Green Waste: Good quality green waste can be used as a diluent to assist in peat-reduction, it will never be a complete alternative. Due to the high salt content, weight and inherent risks in this product, it is most safely used at rates of 10% to 15% of the total growing media recipe. It offers many quality and safety challenges due to the variability of source materials which requires very intensive quality control. Composted Green Waste also contains a high microbial population, with potentially dangerous pathogens which could pose a high risk to human health. Material coming from municipal waste collection centres in Ireland and the UK are frequently contaminated with chemical, herbicide and pesticide residues, glass, needles, faeces, plastic etc. In addition, the substrate has a very complex carbon footprint, the collection of the raw material, the processing and the delivery of the finished product all contribute to the carbon footprint. The product is very heavy, typically, one tonne of green waste produces one cubic metre of composted green waste.

Coir: This material is produced from the discarded husk of the coconut and is imported from coconut producing countries in Asia, notably Sri Lanka and India. It has negative environmental consequences in its country of origin with a large water requirement, (large volumes of fresh water is sprayed on the stockpiles twice each day for three weeks), in areas of India and Sri Lanka where fresh water is already in short supply, issues from the disposal of this waste water, significant transport costs, and nutrient depletion where coconuts are grown. The shipping of the substrate from Asia to Ireland creates significant energy and carbon costs. On a number of occasions recently, the supply of coir has been disrupted due to extreme weather events. This has led to shortages of material for growers here in Ireland and elsewhere. There can also be price volatility related to its use as biomass heat source in certain parts of the world. Although coir has its own environmental baggage, it has at least the advantage that it can be used as an alternative to peat for some crops albeit an expensive one.

Woodfibre: Woodfibre has proven its worth as a very important diluent for growing media due to its chemical, physical and biological characteristics. However, for professional plant production woodfibre generally only forms up to 25% of the content of a growing media mix in order to avoid the challenges of water holding capacity, nitrogen fixation, and poor nutrient buffering. The expectation is that this constituent will become far more important in future, therefore a secure supply of suitable woodchip will be required for the horticultural industry. Currently competition for wood from power plants for thermal energy creation is becoming an increasing challenge for the horticulture industry here and elsewhere in Europe.

Bark: Bark has a naturally high potassium (K) content, but other nutrients must also be added to make a satisfactory growing medium. Bark media tend to be very well aerated but have a reduced water holding capacity compared to peat. Therefore, the substrate needs to be irrigated more than peat leading to higher water use. Bark may also lead to increased nitrogen immobilisation which would be detrimental to crop growth.

This Issue must be addressed urgently:

Currently the entire horticultural sector faces an almost immediate shut down. Most Irish substrate manufacturers will exhaust existing stockpiles of peat by the middle of 2021 which will lead to a shutdown of the entire horticultural sector. The only way to avoid this is:

- Introduce legislation to allow all previously exempted horticultural peat harvesting to resume, subject to the acquisition of an Integrated Pollution and Control Licence from the Environmental Protection Agency or a Water Discharge Licence from the Local Authority as appropriate.

- Allow for an orderly exit from the horticultural peat harvesting industry, rather than the current situation of a forced shutdown with all its negative employment and environmental consequences.
- Work with the industry to ensure a Just Transition for all those involved in the industry to include compensation for loss of earnings, training for alternative employment in the area and agreed joint ventures between the State, semi-State and private sector in bog re-wetting and environmental restoration works.

The current legislation is unnecessarily burdensome and disproportionate, requiring companies to go through two almost identical regulatory regimes (planning and licensing) in a sequential process that will take four to six years to complete. Needless to say, no industry could survive such a shutdown.

GMI's legal advisors have proposed a legal solution which is set out in pages 8 and 9 in the attached Newsletter. This solution which complies with both Irish and European law would remove uncertainty and the potential risk of industry closure, while safeguarding jobs in the responsible harvesting of authorised bogland. – appendix 1.

After use

The aim of GMI membership is to maximize the level of post-harvest biodiversity and facilitate restoration to a self-sustaining peat forming habitat. The optimal strategy to achieve this would be to remove most of the peat and allow natural ecological regeneration to proceed. Our scientific advice is that "if peat removal ceases at some intermediate stage the result is usually the development of a type of dry heath of limited ecological value and with limited biodiversity. The most significant long-term ecological opportunities for cutaway bog do not relate to raised bog *restoration*, but to the development of a carbon sequestering wild-land of enormous biological diversity: not that of the vanished bog, but of comparable ecological value."

GMI

12th February 2021



Growing Media Ireland

June 2020

The Future of the Irish Horticultural Peat Industry



Urgent Government action is required to protect thousands of jobs, in the mainly Peat based, Irish horticultural industry

EXECUTIVE SUMMARY

The purpose of this newsletter is to set out the importance of the horticultural peat industry to the Irish economy and the threat thereto arising from the unprecedented legal and planning problems facing the industry, the potential solution to these problems, the insignificant volume of Green House Gas emissions from horticultural peatlands and the lack of peat alternatives. Peat is used within horticulture principally as a growing medium by amateur and professional gardeners, professional growers and by the mushroom industry.

The Irish horticultural industry makes a very significant contribution to the Irish economy with a farm gate value of € 437m in 2018, employment value of € 497m and exports of € 239m. An estimated 6,600 are employed fulltime in primary production with a further 11,000 employed in value added and downstream activity.

The area of peatland used for horticultural peat harvesting is approximately 5,500 hectares which is 5% of the Irish peatlands currently under production and which equates to a mere 0.4% of total Irish peatlands.

The annual carbon emissions from harvested horticultural peat are approximately 603,900 tonnes, which equates to approximately 0.52% of projected total Irish emissions in 2020.

The current legal position is that horticultural peat harvesting requires planning permission and a licence from the Environmental Protection Agency (EPA). No company in the sector (including Bord na Mona) has planning permission for the harvesting of horticultural peat and would be operating outside the law if they were to continue to do so.

GMI considers the current legislation unnecessarily burdensome and disproportionate, requiring companies to go through three almost identical regulatory regimes (substitute consent, planning and licensing) in a sequential process that will take four to six years to complete. Needless to say, no industry could survive such a shutdown. It prohibits the carrying out of any work whatsoever, including rehabilitation work and after use management until planning permission is granted and a valid EPA licence is received – this could lead to abandonment and prevent the re-creation of valuable post-harvesting



peatland habitats. This will result in an unjustifiable, regrettable and perverse outcome for the Irish economy and indigenous industry. The forced shutdown will have major detrimental employment and economic effects on the mushroom, horticulture (protected fruit, vegetables, nursery stock and ornamentals), tillage, poultry and forestry sectors.

Without an indigenous supply of horticultural peat, the majority of Irish horticultural growers would be wiped out by Dutch plant and mushroom imports. The potential importation of peat or other raw materials would not alone add costs to the product which would make the industry uncompetitive but would also result in higher environmental cost as peat production is shifted from one EU location to another, more distant one, resulting in Irish growers adding thousands of kilometres/carbon footprint to their growing media. It would be unacceptable and hypocritical to ban the use of peat in Ireland while importing it from another EU or third country.

GMI believes that the challenge to find alternatives to peat based growing media for horticultural production, in sufficient quantities, affordable, sustainable and which meet both quality and environmental requirements is a significant one. The main alternatives to peat have major issues relating to quality, health and safety and their Carbon Footprint arising from their production processes, weight and transport requirements. Peat-free or peat-reduced substrates cost substantially more than peat-based

products and have added production risks, such as lower yields and less consistent crops.

Given the importance of this well-developed and environmentally responsible sector to rural and sub-regional economies and communities in the midlands and western regions, GMI believes that a solution to the current difficulties facing the horticultural peat industry needs to be found urgently. Major job losses arising from the cessation of horticultural peat harvesting across the Irish midlands will occur, almost immediately, if a solution is not put in place to safeguard the continuing operation of the sector. GMI believes that the solution suggested, in this newsletter, for the sector could provide a rapid and effective remedy to the immediate problem without creating new legislative or planning difficulties for the future.

GMI is approaching this issue with an open mind but with two core objectives, namely to protect jobs in the sector and to ensure the eventual proper rehabilitation of the peatlands for the benefit of future generations. On behalf of all those currently employed in the sector whose jobs and businesses are currently at risk and in the name of common sense, we ask for urgent action by our Government.



6,600 direct and 11,000 indirect employees

0.4%

Just 0.4% of total Irish peatlands are used for Horticultural Peat Harvesting

0.52%

CO₂ emissions from horticultural peat is 0.52% of projected total Irish emissions in 2020

The Challenges and Opportunities for the Future of Horticultural Peat in Ireland

Who is GMI?

GMI represents the majority of horticultural peat producers in Ireland, large and small (excluding Bord na Mona). It aims to contribute to the socio-economic development of rural communities and regions throughout Ireland where horticultural peat plays an important role. GMI members are committed to best environmental practice in horticultural peat harvesting and the responsible use of peat for both professional horticulture and the retail market. GMI members make a significant contribution to the economy, particularly in the midlands, while operating ethically and in an environmentally sound manner. GMI members have maintained the integrity of the peatland on which they work through sustainable management practices and by putting appropriate mitigation measures in place against issues that may impact on surrounding watercourses or Natura 2000 sites. GMI members only harvest horticultural peat on non-designated bogs (bogs which are not Special Areas of Conservation, Natural Heritage Areas or candidate Special Areas of Conservation).

The Importance of Horticultural Peat to the Irish Economy

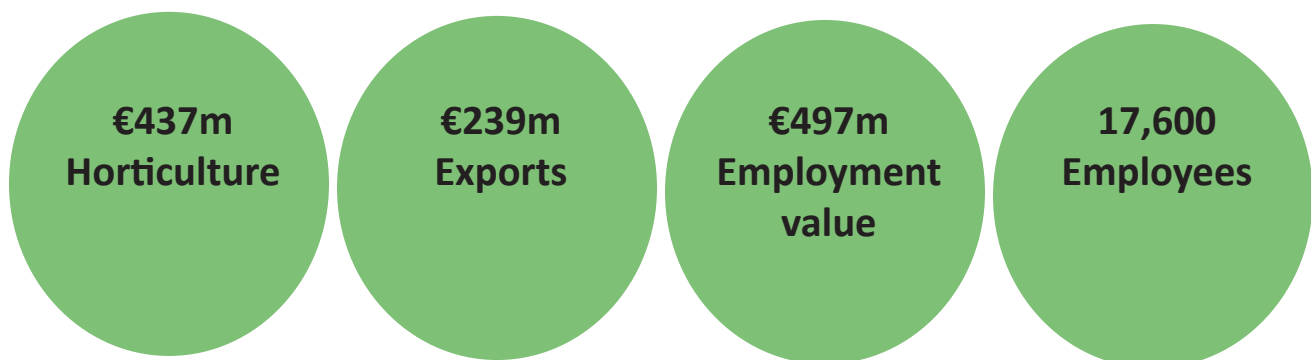
GMI members make a very significant contribution to Irish gross agricultural output. The horticultural sector, which depends on horticultural peat as a raw material, had a farm-gate value of €437m in 2018. The peat/growing sector is the fourth largest contributor to gross agricultural output in terms of value. Only the beef, dairy and pig sectors make a greater contribution. Of the total horticultural industry output of €437m, the output values for the sectors that use peat as an input are as follows:

- €117m – mushrooms;
- €38m – protected fruit;
- €29m – protected vegetables;
- €36m – nursery stock; and
- €19m – protected ornamental crops.

The horticultural sector is an important source of foreign revenue, with the mushroom industry exporting over 90% of its produce.

Within the industry an estimated 6,600 people are employed full time in primary production, with a further 11,000 employed in value-added and downstream businesses (not including the wholesale trade), with an employment value of €497m in 2018.

What is the value of the horticultural peat industry to the Irish economy?



The Irish Horticultural Peat Sector

There are some 1.35 million hectares of peatland on the island of Ireland, covering some 16% of the total land area. Approximately 100,000 hectares are being utilised for peat harvesting, with the majority producing peat for energy and home heating. Just over 5% of this area, which equates to a mere 0.4% of total Irish peatlands, is producing horticultural peat for use in the Irish horticultural sector which relies on this peat as a raw material. In 2018, 4.2 million tonnes of energy peat was harvested, with 70% of this going to the three peat-fired electricity-generating plants and the remainder being used for domestic heating.

The Irish peat industry is concentrated mainly in the midlands and the west, regions that are economically disadvantaged by comparison with Dublin and the east. The horticultural peat sector makes a significant contribution to employment in these areas, where there are few alternative opportunities. The direct, and extensive indirect, employment the industry creates is considered stable. This is particularly important in the traditionally small, rural communities in which peat harvesting takes place, areas that are heavily reliant on agriculture, peat harvesting and forestry for income and where unemployment levels are above average. The impact of losing peat-sector employment in these communities would be particularly severe.

**Just 0.4% of
the total Irish
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Irish horticultural
sector.**



An Unprecedented Legal and Planning Problem Has Arisen

Until the 20th of September 2012, in Planning law, the harvesting of peat from existing peat-harvesting sites was “exempted development”, in other words, planning permission was not required. As a result of decisions made on the 15th of April 2013 by An Bord Pleanála (ABP), relating to two peat-extraction sites in Co. Westmeath, the harvesting of peat from sites that had been in lawful production for many years was found to be no longer exempt from the requirement to obtain planning permission (as from 21st of September 2012), where the site concerned required an Environmental Impact Assessment (EIA) or an Appropriate Assessment (AA).

In February 2018, the ABP decision that the drainage of bogland, access from public roads, peat harvesting, other associated activities and related works could no longer be regarded as exempted development was upheld following a judicial review. The parties to the case were refused leave to appeal in December 2018. In January 2019, the Minister for Communications, Climate Action and Environment and the Minister for Housing, Planning and Local Government made amendments to planning and environmental legislation via two Statutory Instruments.

These amendments required companies operating in the sector on areas of greater than 30 hectares to apply for a licence from the EPA within 18 months from the date of enactment of the Statutory Instruments, the deadline for such applications being the 24th of July 2020. During this 18-month period and the ensuing period during which applications were being processed, companies operating in the sector could continue their operations as normal.

In July 2019, however, Friends of the Irish Environment CLG (FIE) sought and was granted an interlocutory injunction suspending the ministerial regulations until such time as a judicial review of the two Statutory Instruments was heard. On the 20th of September 2019, the High Court quashed the ministerial regulations.

The consequence of the judgment is that the legal position has reverted to that which obtained before the new regulations were introduced in January 2019; in other words, harvesting is not ‘exempted development’. In effect, unless the current legislation is amended to allow all previously exempted horticultural peat harvesting to resume, subject to the acquisition of an Integrated Pollution and Control Licence (IPCL) from the EPA or a Water Discharge Licence from the Local Authority as appropriate, the industry will face a forced shutdown with all its negative employment and environmental consequences. Unless the problem is resolved the consequent loss of both jobs and revenue resulting from the ‘enforced’ ending of normal operational activity in the sector will have a major adverse impact on the national economy.

On the other hand, amending the current legislation as GMI propose will allow for an orderly exit from the horticultural peat harvesting industry.

The striking out of the ministerial regulations following the judicial review has brought an important indigenous industry to an end.

Furthermore, in the event of closure being forced upon the sector, any resumption of activity would require the preparation of substitute consent applications, planning applications and EPA licence applications for each specific site. The fact that almost all current harvesting sites would be simultaneously engaged in this process would only delay the restarting of activity further, placing these companies under further financial strain.

The substitute consent, planning and licencing application timetable would be as follows;

1. Apply to ABP for leave to apply for substitute consent.
2. If leave to apply for substitute consent is granted then apply to APB for substitute consent. it will take from 18 to 24 months before APB makes a decision, depending on third party appeals.
3. Once substitute consent has been granted, an application for planning permission has to be lodged with the local County Council. Realistically, this process will take another 18 to 24 months and possibly longer before a decision is made, again depending on third party appeals.
4. Assuming a positive outcome from the planning process in the various County Councils, only then can an application be made the EPA for a licence . The EPA can take 24 to 36 months to process such applications. If successful with the EPA, a licence would be issued by 2025/26. Obviously, there will be no horticultural peat industry at that time.



Unless the current legislation is amended to allow all previously exempted horticultural peat harvesting to resume, the entire industry faces an almost immediate shutdown.

The Consequences of Abandonment

The abrupt cessation of harvesting activities would cause long-term environmental damage. Immediate cessation without putting sustainable long-term restoration measures in place would prevent the creation of valuable post-harvesting peatland habitats. A sudden halt to peat harvesting would leave horticultural peat producers with no possibility of carrying out any restoration works – restoration/rewetting can only be properly carried out when the level of peat is reduced to approximately 0.5 metres – if sites are simply abandoned, the peat remaining on them will continue to dry out, oxidise and break down, becoming an environmental burden rather than a benefit. (See also section entitled Peatland Rehabilitation below)

The Problem

It is the strong belief of GMI that the decision of ABP and the subsequent court rulings are the unintended consequences of changes in planning legislation over the years. The outcome of these consequences was not foreseen, and we believe that it was never the intention of the legislators to bring an abrupt end to the entire horticultural peat industry.

Notwithstanding, the striking out of the ministerial regulations following the judicial review has potentially brought an important indigenous industry to an end, terminating horticultural peat harvesting and is risking putting many viable companies out of business resulting in the loss of several thousand jobs around the country.

The Potential Solution

GMI acknowledges that the regulatory obligations of horticultural peat-harvesting companies which have been operating for many years prior to the implementation of the EIA and Habitats directives are uncertain. It is important, therefore, that legislation consistent with the EU directives be prepared urgently to allow the industry to continue to trade in a regulated environment without the need for a prolonged shutdown from which it will not recover. If new legislation is not introduced urgently the consequences in terms of the loss of jobs will be serious for the economy, not to mention the negative environmental implications.

The Proposed Solution - Regulation by EPA

There is no good reason for horticultural peat-harvesting to require parallel regulation by the EPA and also by the planning authorities. There is even less reason for operators to be punished for the failure by the State to implement European law on environmental impact assessment and habitats. The regulatory obligations have been unclear and unnecessarily burdensome for too long, particularly for operators that commenced before these European laws were introduced. There must be a structured just transition for long-standing entitlements and investments.

New legislation is urgently required to allow the industry to operate in a regulated environment, without the need for a prolonged shutdown from which it will not recover. Without this urgent legislation, there will be serious loss of jobs for the economy, at a time when that can be ill-afforded. There will also be material adverse environmental impacts, including from carbon leakage and lost custodianship and land management aftercare.

The solution is not complicated. First, remove peat harvesting from the Planning Acts. Almost all agree that the Planning Acts has never worked well for recurring acts of work like peat harvesting, quarrying or dredging of flood relief drains etc. The brightest legal minds in the State have argued that licensing is logically a better fit than planning control. There is already a clear legal power under section 4(4A) of the Planning Acts for the Minister for Housing, Planning and Local Government to make regulations to exempt peat harvesting from planning control. An attempt to do this in January 2019 was quashed by the High Court in September 2019, but for reasons relating to the regulatory system that should replace planning control and, in particular, what should happen during the transition from planning. The judgment provides clear guidance on how this change can lawfully be made.

Second, improve the environmental licensing process to comply with the guidance from the High Court judgment. There is a clear legal power under the European Communities Acts for the Minister for Communications, Climate Action and Environment to make regulations to amend the licensing code

to give effect to European law on environmental assessment. The 18-month exemption proposed in the regulations that were quashed last year should be removed, so that the only delay is the processing time required to assess licence applications. Under our proposals, once licence applications are accepted by the EPA, the applicants are subject to regulation by the EPA. This solution does not try to regularise activity that was previously unlawful; it does not therefore open the regime to potential abuse.

Based on the guidance from the High Court judgment, these amendments should:

- a. prohibit the EPA from granting a licence unless “exceptional circumstances” exist,
- b. require the EPA to consider whether to direct temporary cessation of activity pending a decision on an application for licence,
- c. require the EPA to consider the historic and future effects of the activity before granting a licence, and
- d. require the holder of an existing IPC licence, which was granted before the EPA had the power to complete these environmental assessments to apply for a revised licence.

These two simple proposals would remove uncertainty and the potential risk of industry closure, while safeguarding jobs in the responsible harvesting of authorised peat bogland.

**Our proposals remove
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Greenhouse Gas Emissions from Peatland Used for the Horticultural Industry

Peatlands are unique ecosystems because they are generally net sinks for carbon dioxide, resulting in CO₂ uptake, and sources of methane, resulting in CH₄ emission. Therefore, their climate footprint depends on the magnitude of the land–atmosphere exchange of these two major greenhouse gases (GHGs). Nitrous oxide (N₂O) becomes significant only in nutrient-rich fens and when wetlands are converted to agriculture or afforested. While the net annual GHG budget of natural peatlands is spatially (Laine et al, 2006) and temporally (McVeigh et al, 2014) variable, it is sensitive to natural and anthropogenic perturbations, and the climate footprint of peatlands has been found to be strongly dependent on their management (Petrescu et al, 2015; Renou-Wilson et al, 2012).

It is expected that as a nation we will emit the equivalent of 60 million tonnes of CO₂ in 2020 (Ireland's Greenhouse Gas Emissions 2018 – 2020 p5, EPA). GMI calculate that there is 603,900 tonnes CO₂ “locked up” in the horticultural peat that is harvested each year. However, as horticultural peat is used as a medium for the growth of plants, food and trees, the CO₂ will be emitted gradually over a period of 100 weeks according to British Standard PAS 2050 – 1: 2012. On this basis, horticultural peat will account for only 0.52% per annum of the national emissions. This figure is further mitigated as the plants and trees will themselves continue to sequester CO₂.

Peatland Rehabilitation

Mr Donal Clarke, a member of the International Peat Society Executive Board and a highly experienced authority on the peat industry in Ireland states in a paper entitled Abandoned Peatlands:

“In all the lobbying to stop peat production I have not heard anyone addressing the issue that the sudden ceasing of peat production leaves large, drained peatlands emitting carbon dioxide. If companies lose their income, they will have no funds to rehabilitate these peatlands. Rehabilitation of peatlands is expensive, and rehabilitation to

being carbon neutral or to a positive carbon balance is very expensive. The largest Irish peat company, Bord na Móna, is committed to the rehabilitation of its drained industrial peatlands but with such large areas becoming rapidly abandoned it is difficult to see this other than a long-term exercise. As for the smaller horticultural peat companies I cannot see them having the resources to rehabilitate their peatlands as they become abandoned. A nuanced approach considers the environmental, social and economic values of peatlands in a holistic way. Environmental is not just about stopping peat production now. It is about planning for the long-term carbon futures of these areas.”

In parallel to the views expressed by Donal Clarke are the science-based opinions of Professor John Feehan, one of Ireland's foremost authorities on the peatlands of Ireland and the author of many publications on this subject. Professor Feehan is of the view that where harvesting is already in progress on areas of peatland, the optimum course of action now should be to allow this to continue to a point where approximately a half-metre depth of peat is left. In his publication A Long-Lived Wilderness he states, inter alia,

“Where a greater depth of peat remains the flora and fauna will be more impoverished” He goes on to say that “In wetter conditions the water is likely to be too deep and the acid substrate will limit the diversity of colonising plants and animals. This is why it is undesirable that Bord na Móna (and others) should cease operations at one time when many areas have a substantial depth of peat remaining.”

The companies which make up the horticultural peat industry accept their responsibility to ensure the best after-use plans are in place for their peatlands on termination of harvesting. There are

a broad range of potential after-uses including rehabilitation, sphagnum farming, forestry, civic amenities, and power generation. However, unless the law is changed, they will be prevented from doing so both financially and legally. **It would seem perverse that the law would force a situation where working bogs would be abandoned as opposed to permitting an orderly wind down of production over an appropriate number of years. This orderly wind down would be carried on under the jurisdiction of the EPA by means of an IPC licence which would include an after use plan. After use plans may vary from bog to bog.**

Based on statistics provided in the Review of Peat in the Horticulture Industry, (Government of Ireland, 2019) there are 682,380 hectares of cut-over or cut-away peatlands. These peatlands emit six tonnes of CO₂ per hectare per year which is equivalent to over four million tonnes of CO₂ per annum or 6.8% of projected Irish emissions for 2020. It is important to note that, in approximately ten years from rewetting, there will be a return to the carbon sequestration function characteristic of natural (non-degraded) peatlands in many cases and increased biodiversity provision (F. Renou-Wilson et al 2012). Therefore, a robust plan for the rewetting of these areas combined with the right incentives (grants, carbon credits etc) represents a huge opportunity for Ireland to make significant inroads in its GHG emissions balance sheet.

In a paper delivered to the Irish Peat Society Annual Conference 2014 Professor Feehan wrote:

“The abandoned cutaway presents us with an opportunity that is unique and priceless: truly unique because it is once off and will not be repeated. We need to make our mind up now if we want to realise this opportunity.”

The Horticultural Industry: Peat and Alternatives

For most growers, peat remains the raw material of choice due to its technical and commercial efficiency as well as its consistent qualities which so far is unmatched by any other alternative material tested in the past. The volume of growing media used in the EU in 2018 was 55 to 57 million cubic metres; peat amounted to 40 million cubic metres or over 70%, according to figures supplied by Growing Media Europe. It is clear from these figures that it will take a considerable number of years to have sufficient quantities of alternative materials in the marketplace to fully replace peat.

Peat-free or peat-reduced substrates cost substantially more than peat-based products and have added production risks, such as lower yields and less consistent crops. The increased cost is due to competition for the raw materials from other industry sectors such as power generation (in the cases of bark and wood fibre for example). Power generation is a subsidised industry and therefore has vastly greater buying power than the horticultural industry. Over the past 25 years a huge amount of money has been spent by the horticultural industry, including GMI members, in researching and testing a wide range of alternative material. However no one material has been found to satisfactorily replace horticultural peat for all crops.



The main alternatives to horticultural peat are:

Composted Green Waste Good quality green waste can be used as a diluent to assist in peat-reduction but it will never be a complete alternative. Due to the high salt content, weight and inherent risks in this product, it is most safely used at rates of 10% to 15% of the total growing media recipe. It offers many quality and safety challenges due to the variability of source materials which requires very intensive quality control. Composted Green Waste also contains a high microbial population, with potentially dangerous pathogens which could pose a high risk to human health. Material coming from municipal waste collection centres in Ireland and the UK are frequently contaminated with chemical, herbicide and pesticide residues, glass, needles, faeces, plastic etc. In addition, the substrate has a very complex carbon footprint arising from the collection of the raw material, the processing and the delivery of the finished product. The product is very heavy. Typically one tonne of green waste produces only one cubic metre of composted material.

Coir is an excellent raw material for certain plants; however, it has negative environmental consequences (large water requirement in areas of India and Sri Lanka where water is already in short supply, issues from waste water, significant transport costs, and

nutrient depletion where coconuts are grown, for example). Although coir has its own environmental baggage, it has at least the advantage that it can be used as an alternative to peat for many crops albeit an expensive one.

Woodfibre has proven its worth as a very important diluent for growing media due to its chemical, physical and biological characteristics. The expectation is that this constituent will become far more important in future. Therefore a secure supply of suitable woodchip will be required for the horticultural industry. Currently competition for wood from power plants for thermal energy creation is becoming an increasing challenge for the horticulture industry here and elsewhere in Europe.

Other alternative materials like perlite, vermiculite, rockwool, clay and sand play a role in the development of modern substrates, though they all come with environmental, geographic and commercial challenges.

It would seem that, from the points of view of quality, health and safety and carbon footprint, no reliable alternatives to peat have been identified in the quantities that are required.



Horticultural Peat and Food

Currently there are insufficient supplies of good quality, reliable growing media that could replace peat in the food chain. Unless good quality alternatives are developed very soon the move away from peat will have dramatic consequences for world food supplies as substrates are the backbone of soilless growing globally and peat is the key ingredient in the majority of such substrates.

There is an increasing demand for substrates worldwide. Growing Media Europe estimates that demand will reach 244 million cubic metres by 2050 (from 59 million cubic metres today). It is expected that responsibly sourced peat will play a major role in meeting some of this demand. This demand is directly linked to the need for efficiently produced protein and nutrient-rich plant-based food for a growing world population.

As a small, open economy, Ireland must ensure that it can participate in this global market as a regulated, responsible operator.

Effect on the Agriculture Industry

An immediate and sudden cessation of the production of horticultural peat in Ireland will have an adverse knock-on effect on the horticulture, mushroom, tillage, poultry and forestry sectors resulting in considerable damage to exports and the rural economy.

Horticulture The Irish horticulture sector relies on peat, particularly the mushroom, vegetable, forestry and ornamental sectors. Any cessation of the use of peat would have severe negative effects.

Mushroom growing The unavailability of peat from Irish sources for mushroom casing will lead to either the closure of the mushroom industry or the importation of casing material from other EU countries at a higher environmental and financial cost. 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 production, it is not clear if the Irish industry would survive. Total employed; 2,200 directly, 1,100 indirectly.

Tillage farming The Irish tillage sector depends on the mushroom compost sector as an outlet for 130,000 tonnes of mainly wheaten straw per year. The tillage sector has already seen a decline of 20% in planted area since 2008 therefore a loss of the mushroom market would have dire consequences for the sector. In relation to climate change and the environment, the tillage sector has the lowest carbon footprint of the main farming sectors.

The poultry industry depends on the mushroom sector as an outlet for over 50,000 tonnes of chicken litter per year. This use of poultry manure in the mushroom compost industry is an excellent example of the circular economy in action.

Forestry Farmers involved in farm forestry depend on native tree nurseries for planting material. Peat is the substrate of choice at these nurseries.

Producers would either have to close their businesses or import peat, which would add extra cost to their bottom lines. In the current environment, it would be impossible to recoup these costs from the market. Moreover, it would be unacceptable and hypocritical to ban the use of peat in Ireland while importing it from another EU or third country.

An integral part of the Government's climate change policy is to expand rather than undermine the Irish horticulture sector.

The demise of the horticulture, tillage or forestry sectors in Ireland would certainly hinder Ireland in meeting its objectives and obligations relating to air quality, climate, water quality, nature and the environment.

Just Transition

In September 2019, the High Court ruled that peat cannot be extracted from areas larger than 30 hectares unless the area has planning permission and a licence from the EPA.

Unless the Government amends the current legislation to allow all previously exempted horticultural peat harvesting to resume, subject to the acquisition of an IPC licence from the EPA or a Water Discharge Licence from the Local Authority as appropriate, there will be a forced shutdown of the industry.

The current legislation also prohibits the carrying out of any work whatsoever, including rehabilitation work and after-use management, until planning permission is granted and a valid EPA licence is received. This could lead to abandonment and prevent the creation of valuable post-harvesting peatland habitats

A sudden enforced shutdown of the horticultural peat industry and the subsequent loss of jobs would amount to an **unjust** transition. It is clearly at variance with other EU countries where a medium-to-long-term transition was allowed. In Germany, one of the world's biggest consumers of coal, a 19-year period was allowed for the complete shutdown of coal-firing power stations. In Finland, one of the world's largest producers of peat, a ten-year period was provided to reduce the production of peat by 50% and to phase out the use of coal by the 1st of May 2029.

Major job losses arising from the cessation of horticultural peat harvesting across the Irish midlands is imminent unless a solution is put in place to safeguard the continuing operation of the sector.

It is the opinion of GMI that Ireland should not be taking unilateral decisions on policy issues that are treated differently in the rest of the EU. We already have many examples where the Irish horticulture sector (including horticultural peat harvesting) operates at a considerable competitive disadvantage to its European counterparts. Policy makers must ensure that there is a level playing field for Irish horticulture producers.

GMI members are willing to enter into a Public-Private Partnership with the Government to rehabilitate/rewet part of these 682,380 hectares of peatlands. Rehabilitation/rewetting to achieve carbon neutrality or a positive carbon balance is very expensive. GMI members have the expertise, employees and equipment to carry out this specialist work and welcome the opportunity to be part of the future of our peatlands. Such a partnership would form part of a just transition package.

Furthermore, it is absolutely critical that the State does not resolve these matters in a way that favours one cohort of lands – those in State control – to the unlawful disadvantage of private persons.



Conclusion

Given the importance of this well-developed and environmentally responsible sector to rural and sub-regional economies and communities in the midlands and western regions, GMI believes that a solution to the current difficulties facing the horticultural peat industry needs to be found urgently. Major job losses arising from the cessation of horticultural peat harvesting across the Irish midlands is imminent if a solution is not put in place to safeguard the continuing operation of the sector.

GMI believes that a statutory instrument and a new permitting regime for the sector could provide a rapid and effective remedy to the immediate problem without creating new legislative or planning difficulties for the future. GMI is approaching this issue with an open mind but with two core objectives, namely to protect jobs in the sector and to ensure proper after use plans are in place for these peatlands for the benefit of future generations.

On behalf of all those currently employed in the sector whose jobs and businesses are currently at risk, we ask for urgent action by our Government.





Growing Media Ireland

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