Submission by
Growing Media Europe AISBL, Brussels
as a response to the Public Consultation on
'Review of the Use of Peat in the Horticultural Industry'

Growing Media Europe AISBL (GME) is an international non-profit organisation representing the producers of growing media and soil improvers at European level. We promote optimum legislation for our sector and act as focal point for political decision makers and stakeholders.

GME is committed to the highest environmental standards and actively promotes the shift to a more sustainable horticulture. This shift is enabled by growing plants in high quality, sustainable growing media to "produce more with less":

- Less resources like fertilisers, plant protection and water needed to produce the same yield
- The land use footprint is lower
- Plants growing in growing media are more resilient
- Less labour is required to produce the same yield
- Weather conditions have less impact

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(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?

GME Response:

The global demand for growing media is predicted to rise by more than 400% between now and 2050 due to

- A growing world population demanding more fresh fruits and vegetables while pressure on agricultural (arable) land is rising
- Society's need for green(er) urban areas (parks, green roofs and walls, green recreation areas, flowers)

This development shows that the discussion on using peat or non-peat components is ignoring the bigger context of how growing media contribute to food security, afforestation and greener cities worldwide. If the rising demand for growing media is supposed to be answered, ALL growing media components available today and in the future are needed.

A precondition for sustainability is the agronomic efficiency of a material or product: If a component and hence a growing media product is not "fit for purpose", it is per definition not sustainable. In fact, its environmental footprint would be higher due to the increased need for fertiliser and the waste caused by non-performing crops.

Roughly 40 million m^3 of growing media are produced in the EU 28 annually today, making Europe the world leader in growing media production. Approximately 75 % of all bulky volume building components are peat. The reasons for the predominance of peat has been reported repeatedly. Schmilewski (2008, attached) summarizes the unique chemical, physical and biological characteristics of peat compared to other growing media components. In Europe and elsewhere R&D on bulky organic components other than peat has been conducted for about 40 years – more in other countries than in Ireland. Research on peat has decreased considerably as certain environmental NGOs as well as the governments of several European countries are pushing for the phasing out of peat extraction. Nonetheless, peat is and will continue to be the main growing media component for decades to come. This is more so in the professional sector than on the consumer level, due to the higher performance requirements in commercial crop growing.

When seeking new bulky growing media components researchers mostly do not consider product costs and availability. This is one reason why so many 'novel' constituents have failed to enter the market – they are too costly and not available in reasonable amounts. However, wood fibres, coconut coir, green (waste) compost and fresh/composted/aged bark have their due place in formulating growing media. All components have their merits and drawbacks, but all of them should play a role in the growing media sector as long as they are sourced sustainably.

It is important to notice that with the exception of coconut coir (for a number of ornamental plants) and bark (for growing orchids), non-peat components cannot be used as sole bulky component of growing media. Their negative properties need to be compensated – which is usually done by combining them with eat

(By the way: The no. 6 subtitle "Properties of peat moss versus compost or green waste" is most misleading. Peat moss is the plant that accumulates in a mire and produces peat. What you would like to compare is peat with compost. Green waste must never be considered a constituent of growing media but the input material for a composting process to produce compost.) Recent LCA research indicates that the composting process might have an important impact on GHG emissions.

GME calls for a science- based approach in which all these elements are integrated in order to come to more sustainable growing media.)

Paludiculture of sustainable crops (not just *Sphagnum*) could become more prominent but the land needed to grow such crops is not available. At present paludiculture crops are very unlikely to become a serious peat replacement component. As all available raw materials, such crops would need processing and treatment (composting?) after being harvested to make them usable as a constituent.

All constituents and all materials have an environmental footprint, which consists not only of the GHG emissions but includes indicators like human health, ecotoxicity, water and energy use and several more. A growing medium has to be safe to use as human health is a priority both in B2C and in B2B value chains.

(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)?

GME Response:

The industry itself as well as several research institutes and universities has gone a long way to develop non-peat growing media constituents. However, neither the scientists organized in the International Society for Horticultural Science (ISHS) nor the growing media industry nor other scientist have made breakthroughs in peat replacement worth mentioning. There is however an evolution in using other constituents in combination with peat.

Instead of narrowing the perspective to a "peat or peat-free" question, efforts should be put into producing "sustainable" growing media. "Sustainable" and "peat free" are however not directly linked due to the simple fact that all constituents and hence all growing media leave an environmental footprint. There is no scientific evidence showing that peat free growing media are in general more sustainable than peat based growing media. If the objective is to become more sustainable, the overall environmental footprint (Life Cycle Assessment) as well as the economical and social aspects of sustainability have to be taken into account.

- GME is currently developing an environmental LCA study according to the PECR rules of the European Commission. Results are expected in autumn 2020.
- In the UK, a scoring system for growing media components is already available, with the first producers currently being certified. Set up by the Horticulture Trades Association (HTA), DEFRA, the Growing Media Association UK and other stakeholders, the Growing Media Initiative has developed the "P4 Responsible Sourcing and Manufacturing of Growing Media scheme". The scheme differentiates more responsible products from less responsible ones and thus enables comparison of the same material from different sources. P4 has been designed to be practical, simple, robust, meaningful and cost effective.

From a plant health point of view for example, peat is the most risk-free component. There are exceptions but the general rule is "the higher the volume of an 'alternative' component in a mix, the higher the risk of crop failure leading to unsustainable use of resources". Some growers – in particular those who cultivate young vegetable and ornamental plants – produce 1 million or more plants per day. The agribusiness relies on such 3-4 weeks old plants for cultivation in greenhouses or in open field. Just-on-time production of high quality and uniform young plants is a precondition for uniform growing on and just-on-time delivery of produce. Usage of low-quality growing media

components bares a risk of crop loss and dissatisfied agro-business partners and end consumers. The above (A) mentioned 'alternative' organic components have long been proven to be applicable but their limits must be known.

The end consumer/hobby gardener is not aware of properties of constituents and is thus not able to compare quality. He will have little or no knowledge of the environmental impact of any of the components used in the manufacturing growing media and will usually decide based on the one-sided marketing strategies that imply negative environmental impacts of peat. Responsible manufacturers stick to ISO norms and/or have other quality assurance systems in place, implement responsible sourcing systems, are members of quality assurance associations and apply in-house quality control schemes. In today's competitive businesses quality assurance is a must.

(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?

GME Response:

Why should Ireland cut back or cease the export of peat or even phase-out peat extraction for horticultural use? From GME´s perspective there is no valid reason to do so. If Ireland cuts back or ceases the export of peat, other exporting countries will definitely close the gap with their peat and peat-based products. Loss of exports and jobs in Ireland, often in economically disadvantaged rural areas, would be the consequence.

The world population is growing, the growing need for food (food security is one of the 17 UN Sustainability Goals) and an increase in ornamentals production as a result of a worldwide growing number of middle-class families will result in a growing export market for peat, non-peat components and ready-to-use growing media (see above). Ireland will need to decide if its peat and growing media business should be a part of this expansion or not.

In case peat extraction is stopped, it is of crucial importance to ensure that existing peat production sites are not abruptly left abandoned as this would result in high GHG emissions. Instead, a proper renaturalisation of the peat bogs AFTER completion of the production period ensures biodiversity and carbon capture.

(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?

GME Response:

See C). GME welcomes and promotes the development of new constituents (both regarding quality and quantity) as the overall demand for growing media is sharply increasing. However, this should not be done in order to replace peat but in addition to using peat as growing media constituents. We think that such a working group should focus on the quality and availability of non-peat constituents without the purpose of replacing peat. The work of such a working group could then help to enable the shift towards a more sustainable horticulture by promoting the use of sustainable growing media, including peat based growing media. With regards to peat, one of the working group´s tasks should then be the promotion of the "Responsibly Produced Peat" certification for peat. The RPP certification system does not allow peat extraction from high conservation value areas. It stimulates peat extraction from highly degraded areas followed up by appropriate after-use measures. High conservation values (HCV) are biological, ecological, social or cultural values of outstanding significance or critical importance.

This could be the presence of rare species or special ecosystem services. RPP certification prevents that peat extraction affect these HCVs. In addition, rehabilitation measures can result in a net gain in natural values. For more information, please see
https://www.responsiblyproducedpeat.org/

(E)

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

GME Response:

See above

(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)?

GME Response:

Peat should be considered as a (very slowly renewable) natural resource. Peatlands and the peat they contain are in principle an ecosystem service, although environmentalists would not agree. Peat can be extracted responsibly according to the independent, multi-stakeholder "Responsibly Produced Peat" (RPP) scheme which is being implemented by a growing number of peat-extracting companies throughout Europe. Compensation will not be needed if manufacturers are given extraction permits and if e.g. the 'Strategy for Responsible Peatland Management' published by the International Peatland Society (IPS) is the basis of peat extraction and the use of 'alternatives'.

(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?

GME Response:

See above. GME is open and willing to support the development of new constituents. Respective research is needed. But roughly 40 years of R&D in this direction resulted in the 'alternatives' that we now have. Paludiculture is the 'new wave' but the seriousness and feasibility of large-scale implementation will prove the difference between reality (cost and land use) and unrealistic vision. *Sphagnum* as a paludiculture crop could become an additional sustainable component for growing media production but land use is restricted unless politics offer subsidies to farmers to switch from wheat, corn, etc. to paludiculture. But even then, *Sphagnum* would remain a niche component.

(H)

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

GME Response:

Carbon Storage	**15**
Nature Conservation	**20**
The provision of ecosystem services	**20**
The Economy	**25**
Social and Cultural Needs	**20**
	100

(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?

GME Response:

(i)

See above. GME disagrees with a reduction or a ban of the use of peat in both professional and the amateur horticulture. From a purely technical point of view, replacing peat in the amateur market is easier than in the professional market since the requirements for agronomic efficiency, plant health, food safety etc of the hobby gardener are lower than those of the professional grower who's existence relies on good quality growing media, fertiliser, water, etc. However, the general fit for purpose condition should apply in the consumer market as well as sustainability is the objective.

(ii)

As for the hobby sector a total peat phase-out would definitely restrict the increased use of other components with less favourable properties as they need to be diluted.

(J)

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

Consumers are currently being deceived by marketing strategies based on discrediting a certain material (in this case peat) while offering presumably "simple solutions" (in this case non-peat growing media) to contribute to environmental protection.

Instead, consumers should receive holistic and science-based information covering all aspects of horticultural use of growing media and their components (physical, chemical, biological properties). Consumer awareness must cover education regarding the environmental footprint of all materials – not just the one of peat.