

Resilience in a post-fossil fuel world - the transition to renewable growing medias

WG5 Sustainability and Standards, www.Biogreenhouse.eu,
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Main arguments for peat

1. We are all so used to it, it works well, is cheap, and problems are hyped up
2. Other countries also mine peat/fossil fuel
3. If peat is phased-out in the UK we are less competitive
4. “Sustainable” peat mining is possible
5. Peat alternatives also have sustainability issues

Main arguments **against** peat

1. Biodiversity and Nature Capital loss
2. Eco-system service loss
3. Carbon emissions and climate change effect
4. Archaeological and heritage value
5. Barrier to renewable based economy

Five arguments against peat

1. Biodiversity

Intact raised bogs are one of Europe's rarest and most threatened habitats. All natural peatlands in the Netherlands have been lost, Switzerland and Germany each have only 500 ha remaining. The UK has seen a 90% loss of blanket bog and a 98% loss of raised bog. Ireland had only 18% of its original peatland area left. According to Defra England has just 1% of the original pristine habitat left (Defra, 2010). Losses to biodiversity are well documented by wildlife and nature protection campaign groups as RSPB, The Wildlife Trusts, Butterfly Conservation, Plantlife, Buglife etc.

Five arguments against peat

2. Eco-system services

The eco-system services of peatland for e.g. tourism, as landscape features, for flood prevention and regulating water quality are well recognised and more research is under way to measure it quantitatively. The UK's first comprehensive and wide-ranging National Ecosystem Assessment (NEA) is expected to highlight the value and benefits of peat-based ecosystems.

Five arguments against peat

3. Carbon emissions – Climate change

Currently there are 400,000 tonnes CO₂e per year from UK peat extraction. This are only the off-side emissions. One day the on-side emissions (from drained and exposed peat) also have to go into the UK inventory and then the figure will rise. The off-side emissions are based on 10+ year old conversion factors which are sourced from a small sample: 9 bags GB, 10 bags Northern Ireland (Cruickshank and Tomlinson, 1997). International standard tier-one factors are 400 % higher (0.2 nutrient poor versus 0.0557 GB and 0.0441 NI).

Five arguments against peat

4. Archaeological value

This effect is well recognised and covered in the government's documents given the quality of valuable archaeological remains and palaeo-environmental records. Assessments carried out for English Heritage have concluded that peat extraction over the last 50 years has resulted in the destruction of 230 known archaeological sites on the Monuments at Risk Register in England.

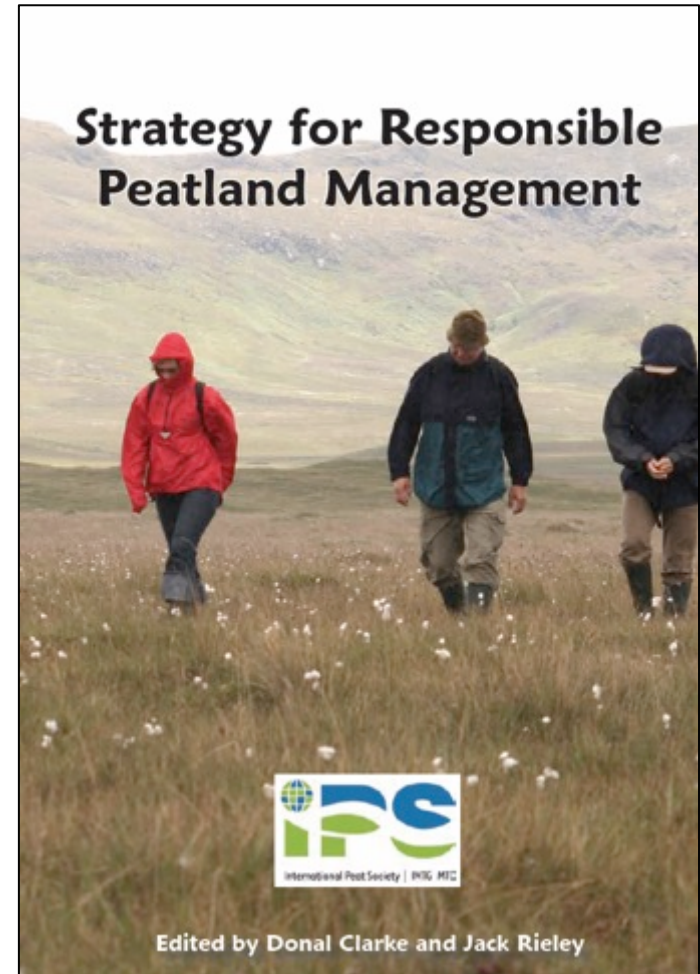
Five arguments against peat

5. Leadership in a renewable resources based economy

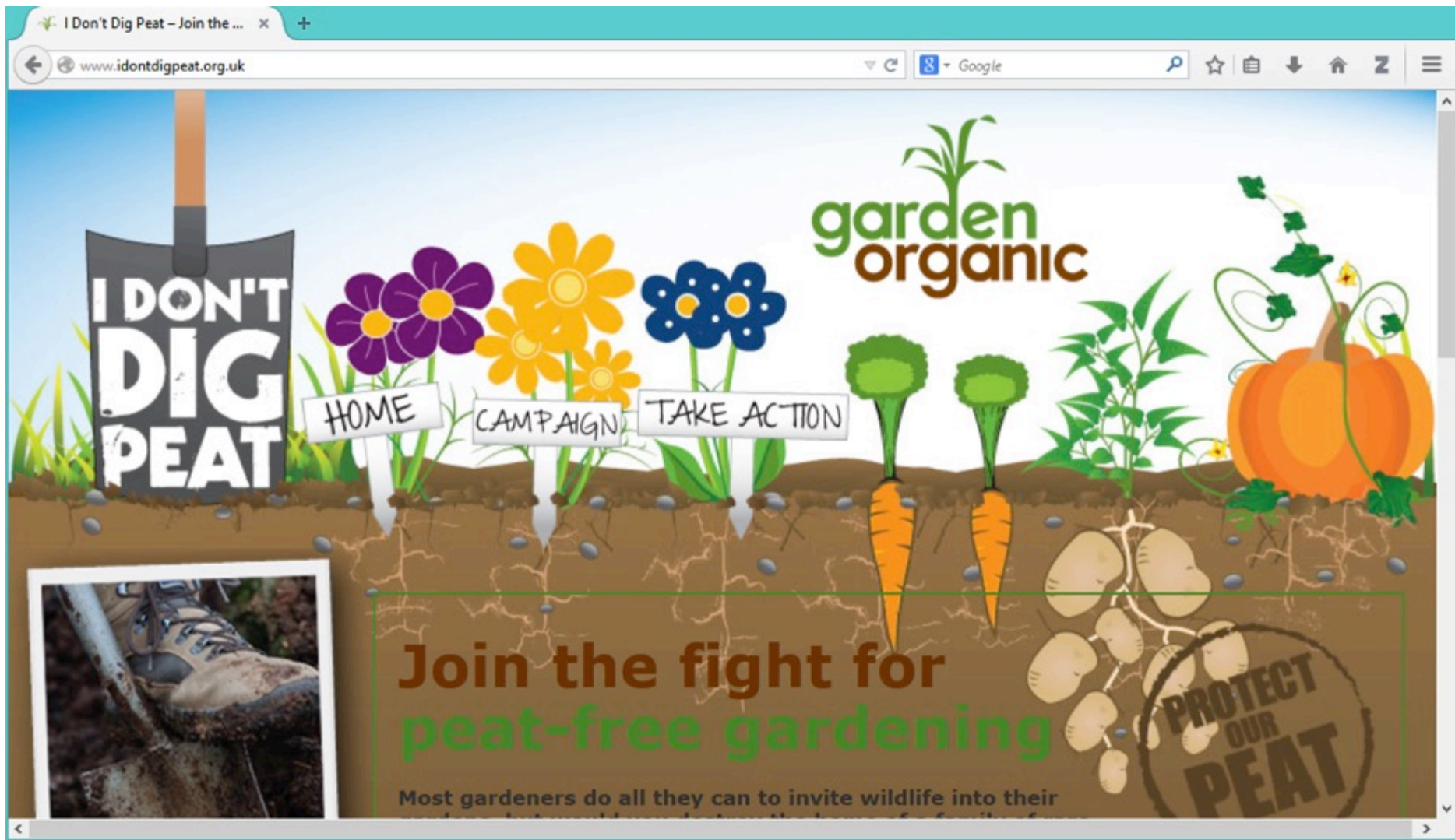
Peat is a fossil fuel and non-renewable. The development and success of renewable peat alternatives will use waste streams (green waste, garden waste) and by-products from sustainable forestry and agriculture. Making more use of these products keeps the carbon circle closed and helps recycling and sustainable land use by adding economic value to the waste and by-products.

International Peat Society

- Strive to develop suitable replacement substrates for peat in growing media and for other uses of peat.
- Recognise the economic benefits provided by largely intact peatlands through environmental services such as carbon capture, water regulation and biodiversity maintenance.
- Avoid deforestation and drainage of tropical peatlands for agriculture or plantations.
- Consider use of peat for horticulture, bedding and other purposes when it can be derived from degraded peatlands.



I don't dig peat campaign www.idontdigpeat.org.uk



The image shows a screenshot of a web browser displaying the homepage of the 'I Don't Dig Peat' campaign. The browser's address bar shows the URL www.idontdigpeat.org.uk. The main content is a colorful illustration of a garden bed. On the left, a shovel is stuck into the soil with a sign that reads 'I DON'T DIG PEAT'. To its right are three flowers (purple, yellow, and blue) with signs that say 'HOME', 'CAMPAIGN', and 'TAKE ACTION'. Further right are two carrots, a leafy green plant, and a large orange pumpkin. The soil is depicted with roots and small blue stones. In the bottom left corner, there is a small inset photo of a boot stepping on a peat block. In the bottom right corner, there is a circular stamp that says 'PROTECT OUR PEAT'. The text 'garden organic' is written in green and brown in the upper right area of the illustration.

garden organic

I DON'T DIG PEAT

HOME

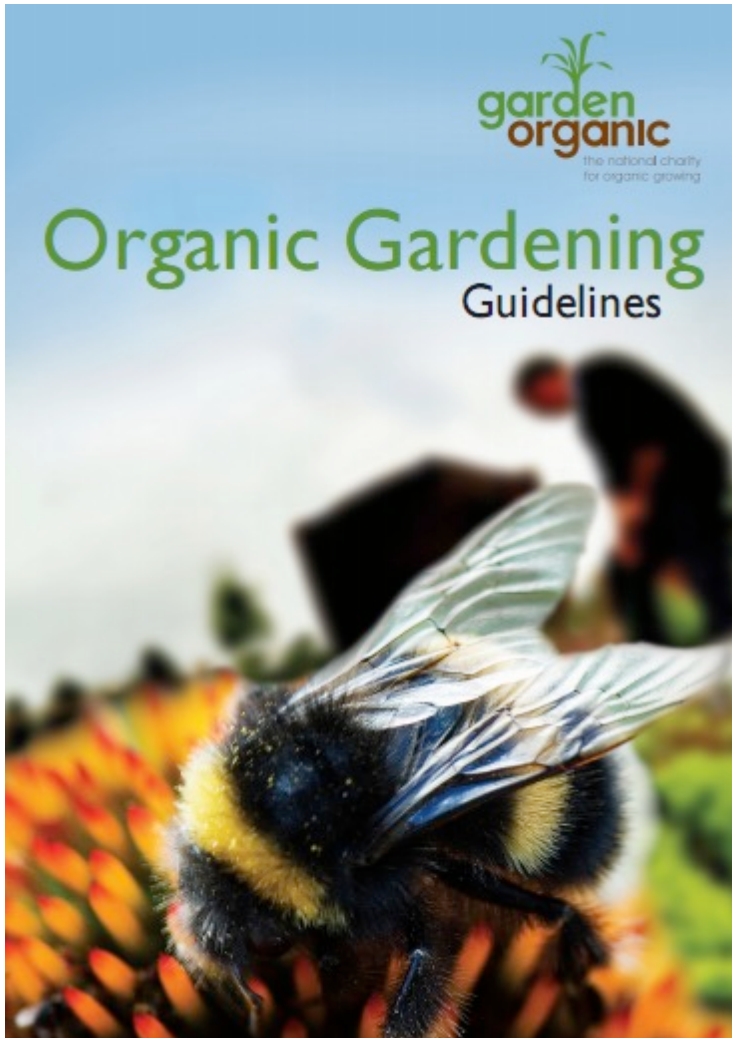
CAMPAIGN

TAKE ACTION

Join the fight for peat-free gardening

Most gardeners do all they can to invite wildlife into their

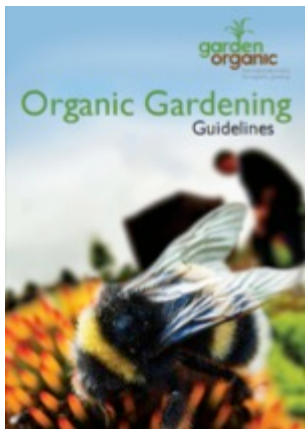
PROTECT OUR PEAT



Best Practice acceptable not-regular never



- Organic soil care
- Plant raising and growing in containers
- Plant health
- Weed management
- Water management
- Wood in the garden
- Biodiversity
- Energy use



Peat and Organic Gardening



Acceptable, but not for regular use

- Container grown plants and transplants in peat-based growing media, but without an accredited organic symbol



Never acceptable in an organic garden

- Peat or coir as a soil conditioner
- Growing media containing materials not approved in these guidelines, including non-organic fertilisers and peat
- Peat, other than recycled/reclaimed peat
- Peat pots

Organic standards



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Waste

Do you allow the use of peat in organic farming?

We support the phase out of peat as quickly as possible as it is a non-renewable resource and there is an overwhelming conservation case for not using it. Organic commercial growers already only use peat in limited circumstances. Alternatives are available such as reclaimed peat, coir (the hairy outer part of coconut husks), biochar and green waste as a base for the compost. Ongoing research and development means that these products are improving all the time.

Organic standards

Managing semi-natural habitats, 4.5.25

- you may cut turf or peat from peat bogs only for your own domestic fuel supply

Manure, compost and plant wastes , 4.7.4

You may only use peat in propagating media, but you should use alternatives to peat where possible. Ideally these should be from sustainable UK produced materials

Growing plants in pots and containers to sell as organic, 5.3.15

you do **not** use peat or slaughterhouse wastes

Mushroom substrate, 7.1.4

Your mushroom substrate may only consist of the following materials:

- peat (not chemically treated)

Housing livestock

You must **not** use peat as bedding material

2011

 HM Government

The Natural Choice: securing the value of nature



2011 - “The Natural Choice”

- In 2011 the UK government publishes the Natural Environment White Paper: **The Natural Choice: securing the value of nature**
- Phase-out peat by **2020** in **non-commercial** horticulture
- Phase-out peat by **2030** in **commercial** horticulture, through a voluntary partnership
- -> Task Force established in 2011

UK: Sustainable Growing Media Task Force

- established in June 2011 following the publication of the Natural Environment White Paper, the Natural Choice, to explore how to overcome barriers to further reducing peat use in horticulture.
- The Task Force is made up of representatives from 35 organisations from across the growing media supply chain, including retailers, growing media manufacturers, growers and environmental organisations.

Members (organisations)

Growing media manufacturers

Growing Media Association
Bord na Mona
Horticultural Coir
Melcourt
The Scotts Miracle-Gro Co.
Somerset Peat Producers Association
Vital Earth
Westland Horticulture
William Sinclair

Retailers

British Retail Consortium
Horticultural Trades Association
B&Q
The Garden Centre Group
Homebase
Scotsdales

Professional growers – industry groups

Horticulture Development Company
Horticultural Trades Association
National Farmers' Union
West Sussex Growers Association

Professional growers – Food

Delfland Nurseries
Lincolnshire Herbs
Monaghan Mushrooms
Madestein
Produce World
The Shropshire Group
Vitacress Ltd Group

Professional growers – Ornamentals

Fleurie Nursery
Hillier Nurseries
Johnsons of Whixley
Lovania Nursery
Lowaters Nursery
Millais Nurseries

Other Non -Government Experts

Friends of the Earth
National Trust
Royal Horticultural Society
WRAP

Sustainable Growing Media Task Force

Towards Sustainable Growing Media

Chairman's Report and Roadmap

June 2012

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Four Point Summary

1. The horticulture industry over relies on peat. The more it argues the economic case for peat, the more it exposes the inherent risk in having an industry that is too reliant on peat to compete. It is in the economic interests of the industry to develop more choices and alternatives in the raw materials for growing media.
2. All growing media regardless of origin must be competitive, perform to agreed standards and have proven sustainability credentials. Consensus is needed amongst the key stakeholders on what those credentials are and the degree of third party auditing required to show compliance.
3. The environmental movement needs to restate its rationale for zero peat use in horticulture and be consistent in the delivery of that message, not just across the UK but also across the EU and beyond. It also needs to balance its narrative on peat in horticulture with other uses of peat.
4. Government should continue to show bold leadership on this issue....

Dr Alan Knight, chairman

“Whilst there is a clear consensus that no peat should be sourced from pristine or high quality peat habitats, there is a spectrum of opinion over the extent to which the protection of bogs extends to a complete phase out of all peat use including peat from agricultural land or bogs that are degraded.

Government, through the Natural Environment White Paper and its peat targets, has placed itself at the ‘complete phase out’ end of the spectrum.

(like all environment groups and organic farming and gardening)

Whilst some might argue that peat is renewable and can be harvested like a forest the vast majority accept the principle that peat is effectively non-renewable and that as the industry grows, the reliance on peat will need to be reduced and alternatives developed...the industry should move towards alternatives in order to avoid commercial risk created by an over reliance on peat as the sole raw material for growing media.”

Alan quote continued...

“Europe surfaces another paradox in this debate; the pressure to phase out peat use is very UK-centric. It is fair to say that the debate in mainland Europe is significantly different. As companies choose to expand into Europe and beyond and begin to rely on European sources for key raw materials, it is not unreasonable for the sector to hesitate in reacting whilst the arguments pushed forwards by the NGOs vary so much in intensity. If an NGO believes it is unreasonable for Eastern European peat to be used in potted plants sold in the UK, then surely the same pressure should be applied on a potted plant sold in Holland or France.”

Alan quote continued...

...

“If you look at biochar, for example, in today’s paradigm, you will see a growing media ingredient that is too expensive, too limited in supply and not proven to work. However, if you look at the potential of biochar in a future where carbon negative products generate money (e.g. through carbon credits), nothing goes to landfill and there is adequate feedstock, then biochar might be more attractive. I do not know. But what I have observed is that the industry think about their sector in the light of today’s challenges not tomorrow’s opportunities. This means that sustainability, if ignored, creates the space for new companies to emerge. Their success makes the existing companies uncompetitive and the market does the rest.”

Roadmap

Performance standard

Goal: All growing media is fit for purpose.

Year 1	<ul style="list-style-type: none">• Testing protocol and audit protocol developed by the Growing Media Association for multi-purpose compost• First product testing against protocols completed
Year 2	<ul style="list-style-type: none">• Retailer and stakeholder buy-in obtained• Implementation of scheme by growing media manufacturers
Years 3-5	<ul style="list-style-type: none">• Products appear on market that have been audited as meeting the standard• Choice editing by retailers to ensure that the default choice is products meeting the performance standard• Review performance of scheme• Integrate with the responsible sourcing and manufacturing standard• Identify other types of growing media for which a performance standard is required
Years 6-10	<ul style="list-style-type: none">• Other performance standards developed and implemented

Roadmap

www.the-hta.org.uk/page.php?pageid=1453

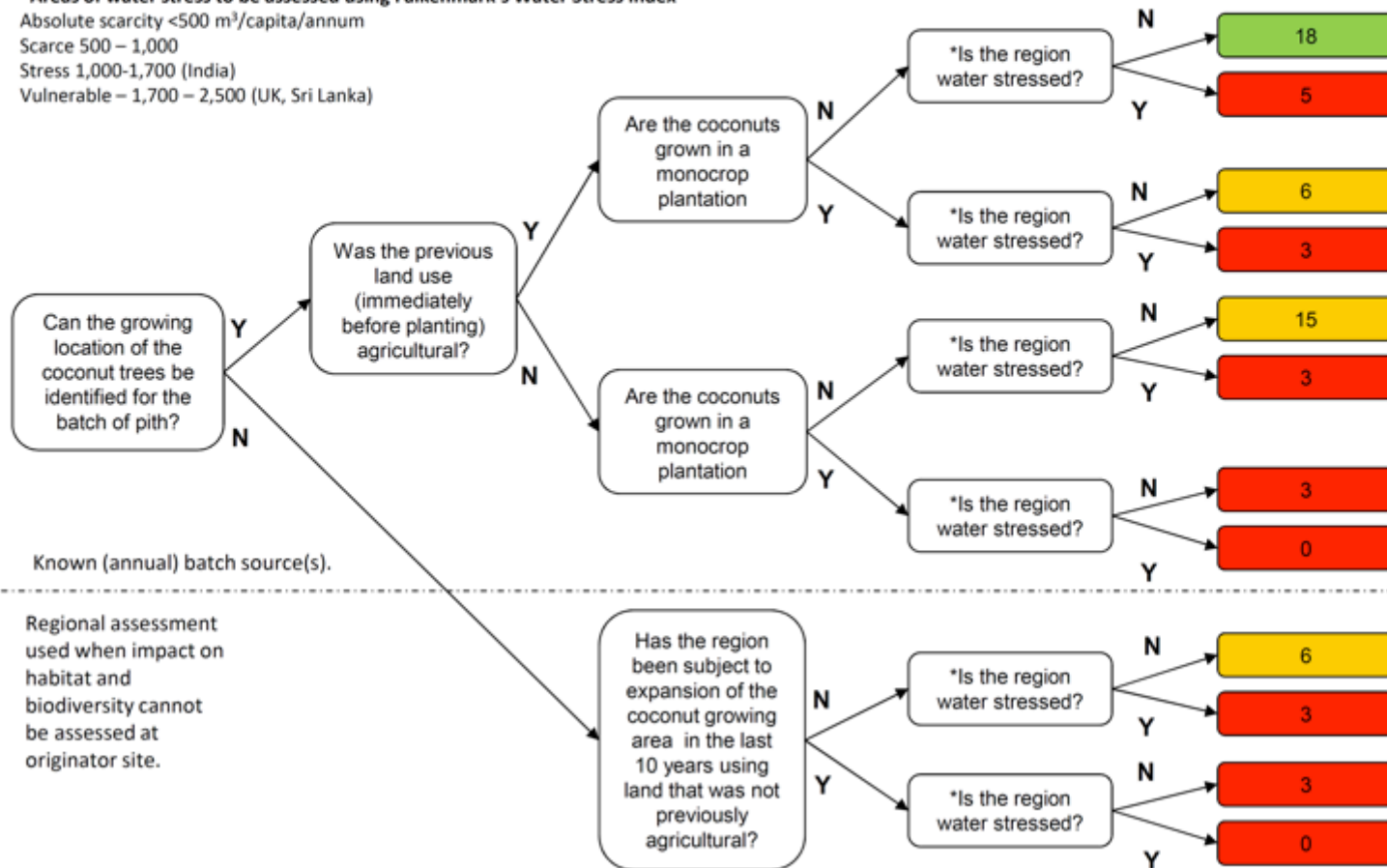


Responsible Sourcing & Manufacture of Growing Media' Project Toolkit (Excel)

Habitat and Biodiversity – Coir

***Areas of water stress to be assessed using Falkenmark's Water Stress Index**

Absolute scarcity <500 m³/capita/annum
 Scarce 500 – 1,000
 Stress 1,000-1,700 (India)
 Vulnerable – 1,700 – 2,500 (UK, Sri Lanka)





Thank you

discussion please

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