



PEAT

Peat, a traditional raw material, has been used worldwide for decades as an organic raw material for growing media. Growers have extensive experience with it, and their cultivation methods are traditionally adapted to its properties. Peat is safe and, with minimal drawbacks, practically problem-free in use.

What is peat?

Peat forms from plant remains that decompose in an oxygen-poor (anaerobic) environment. In an oxygen-rich (aerobic) environment, plants decompose entirely, leaving little behind. The oxygen-poor environment, often due to high groundwater, allows plant remains to transform into peat, initiating a process of coalification. Peat, therefore, consists of old plant remains that have decomposed under low-oxygen conditions.

There are two types of peat: raised bog peat and fen peat. Raised bog peat is formed by rainwater, is low in minerals, and has a high acidity (low pH). Fen peat is formed by surface water, often contains minerals (nutrients), and usually has a neutral pH. Peat is extracted by draining peatbogs.

Raised bog peat is primarily used for growing media for pot cultures and propagation of crops. Raised bog peat can be classified in several ways, for example, by decomposition degree, harvesting methods or fractioning.



Degree of decomposition

White peat	Upper layer of the peat bog, least decomposed, light brown colour.
Brown peat	Layer between white and black peat, also known as transition peat.
Black peat	Lowest layer of the peat bog, most decomposed, black colour.

Harvesting method

Milled peat	Peat is milled at the surface and collected after drying, horizontal method of harvesting.
Blocks	Peat blocks (10-50 litres) are cut and, after drying, broken into fractions, higher air content than milled peat.
Black peat	Can be extracted horizontally through milling. Another extraction method is the vertical method, in which part of the profile is dug away, spread out, and collected after freezing and drying.

Origin

Raised bog peat for horticultural growing media in Europe is primarily sourced from Scandinavia and the Baltic States.

Properties

The properties of peat are largely determined by the degree of decomposition and the harvesting method. No peatbog is exactly the same, partly due to its unique botanical composition. In addition, the fractions determine the physical properties of the product.

Chemical

Nutrient level	low
Unwanted salts	very low
pH-H ₂ O	3.5-6.0
pH-buffering capacity	high/very high
Nitrogen immobilization	very low
Pesticide residues	none

Physical

Air content (%-v)	5-30
Water uptake characteristic (WOK)	slow-fast
Water retention capacity	moderate-very high
Stability	high

Biological

Susceptibility to saprotrophic fungi	low
Human pathogens	low

Purpose of use

Widely applicable, pH-buffer and water retention capacity.

Application

Peat is a raw material that is broadly applied in organic growing media. Decades of research and experience have resulted in extensive

knowledge about peat compared to other raw materials. Peat is safe, has few drawbacks, and is applied very broadly. A wide range of growing media is used in horticulture. For sowing of seeds and the propagation of young (vegetable) plants and herbs in greenhouses, fine growing media with a relatively high air content are usually required. This can be achieved with peat, provided the right choice is made. Peat is also used in growing media for pot plants, tree nurseries and mushrooms.

Names of peat products and even millimetre-based fractions vary between producers, making it essential to test the properties of the raw material or substrate in a laboratory. By combining peat in a substrate with renewable raw materials, these can be applied in higher percentages more safely.

Distinctive RHP quality

Peat with the RHP quality mark is sourced from regularly inspected peatbogs. There are also strict transportation requirements to minimise contamination risks of the peat. These quality mark requirements provide more security of the quality and plant safety of the substrate raw material, especially in terms of human pathogens, plant diseases, nematodes, weeds and contaminants.

