



What is Biogreen Peat?

Peat forms when organic matter decomposes slowly under continuously anaerobic conditions. Such environments exist under various climatic and topographic conditions.

There are two main types of peat:

1. Blanket Peat forms where cool temperatures and high rainfall contribute to precipitation being greater than evapotranspiration. The only source of water at such sites is rainwater, which is low in bases, leading to extremely slow organic matter decomposition for only partially humified peat.

The ash (mineral) content of this peat is very low (usually < 5%). Most of this peat formed between 4000 and 7500 years ago and the dominant species at such sites are sphagnum mosses, hence the common name, **Sphagnum Peat**.

2. Basin Peat forms where drainage water collects at low-lying land with an impermeable underlay of clay or rock. Although the decomposition rate can be more rapid than with sphagnum peat formation, neutral to alkaline water allows the plant growth rate of the reeds and sedges to exceed the decomposition rate, resulting in well-humified **fen peats**.

These peats have a high ash (mineral) content (10-50%) due to transported soil particles in the drainage water. **Biogreen Peat** is a fen peat commonly referred to as **reed-sedge peat**. Basin and fen peats formed earlier (8-12 thousand years ago) in the Holocene period than blanket peats.

Biogreen peat has a high proportion of humic substances because of its mode of formation, the organic matter content (60-80%) being completely comprised of humic acid, fulvic acid and humin.

A healthy soil contains a significant proportion of organic matter (5-10%) and this organic matter should consist of two main types of organic matter, particulate organic matter and humus. **Particulate organic matter (POM)** is young, actively decomposing organic matter.

POM is relatively cheap to source but its rapid rate of decomposition means that regular applications are required to maintain healthy levels. In the first year of decomposition of particulate organic matter a large proportion (60-80%) is lost to the atmosphere as carbon dioxide.

This decomposition continues in the following years leaving only a miniscule proportion in the soil as humus. **Humus** is the most important form of soil organic matter and because it takes so long to form in the soil, once depleted it is the most difficult to replenish. Biogreen peat is a ready-made source of humified organic matter and can therefore be used to replenish a soil's humus content.