



EASTCOTE HORTICULTURAL SOCIETY INFORMATION SHEET (SOURCED FROM RHS)

WHAT'S THE PROBLEM WITH USING PEAT?

Peatlands are the world's largest carbon store on land. These natural boggy areas provide valuable ecosystems for both plants and animals. When we take peat for our gardens via industrial peat extraction, the peat is exposed to the air and begins to oxidise, releasing carbon dioxide into the atmosphere. The remaining habitats are damaged and dried out.

Keeping peat in bogs is a crucial part of the fight against climate change:

- Our planet's 10 billion acres of peat hold more carbon than all the world's forests combined
- It takes 100 years to form just 10 cm of peat in a peat bog.
- Area for area, peatlands store more carbon than rainforests
- The UK is one of the world's top 10 countries in terms of peatland area, with nearly 5 million acres
- At least 80% of our peatlands are damaged

Reference - rhs.org.uk/advice/peat

WHAT CAN BE USED AS AN ALTERNATIVE TO PEAT?

Peat-free potting composts contain blends of various organic (plant-derived) materials – such as composted bark, coir, wood fibre and green compost mixed with inorganic materials such as grit, sharp sand, rock wool and perlite. A mix of coarse and fine particles is needed to create a balanced compost that will hold enough water and air, which are essential for root growth.

The three most commonly used organic ingredients are:

- **Wood-based materials** such as wood fibre, composted bark, sawdust, wood or paper waste are usually the main ingredient. Wood-based mixes can be tailored to the requirements of most plants, as they have excellent drainage properties, as well as a low [pH](#).
- **Coir or coconut fibre** – this is a waste product, mainly imported from Sri Lanka. It has excellent water-holding abilities and a sufficient mix of fine and coarse fibres to hold air in its pore spaces, to provide good growing conditions. However, it doesn't hold nutrients well. The environmental

credentials of coir are debatable, due to the distance it has to be transported, but this is balanced out by the fact that it is a genuine waste material.

- **Green compost** – many local authorities and private companies collect and compost green waste. The resulting compost tends to have a high nutrient content and high [pH](#), making it an excellent soil improver or mulch. There is an industry for green compost that enforces consistent and regulated processing, in order to encourage its use in potting composts. Due to its high pH and high levels of nutrients, green compost tends to be mixed with other materials to make potting compost – it's usually no more than 30 per cent of the overall product.

Other ingredients

Research is ongoing into a number of materials that, if locally available, may be useful ingredients in blended products, such as arable straw waste, wool waste, carpet waste, and paper and cardboard production waste.

Home-made potting compost

You can mix your own peat-free potting compost using home-made [garden compost](#), [leaf mould](#) and inorganic materials (loam and sand). This has the great benefits of being free and having no carbon footprint, but the results can be variable – it can be difficult to standardise the [pH](#), moisture retention and available nutrients, and to ensure that the final mix is weed-free. Experiment with your mix of ingredients – aim for a blend that holds moisture when watered, but doesn't stay waterlogged. It can take a bit of practice to get this right, but is worth persevering with.

Home-made potting composts are best avoided for seed sowing, because of the potential for them to contain fungi that can harm seedlings or cause [damping-off disease](#).

HOW TO SELECT THE RIGHT PEAT-FREE COMPOST

Always choose a compost to suit the type of plants you will be growing in it, such as seedlings or long-term container plants. With the expansion in the range of peat-free options, you should be able to buy peat-free versions of all the various types of compost.

When deciding between similar peat-free composts, look for good information on the packaging about how to use it and which plants it is suitable for. Also look for the [Responsible Sourcing Scheme logo](#) on the packaging, and check the environmental rating of that particular compost.

The packaging may also recommend the use of specific fertilisers with that compost: this is not a marketing ploy, as different formulations have different balances of nutrients. Use either the recommended product or one with a similar nutrient balance – compare fertilisers by [checking the NPK ratio](#) (Nitrogen (N), phosphorus (P) and potassium (K)) and the trace-element content quoted on the packaging.

Look for the following peat-free options:

- **Multi-purpose and seed compost** – most of the major manufacturers produce peat-free multi-purpose products, including SylvaGrow and Westland New Horizon
- **Ericaceous compost** – the choice for ericaceous (acid-loving) plants is more limited, but look for SylvaGrow Ericaceous

- **John Innes compost** – for containers that will be home to plants for more than two or three years, use a peat-free compost such as SylvaGrow with John Innes. But note that traditional-recipe John Innes contains peat
- **Carnivorous plant compost** – these bog plants are traditionally grown in peat, but sustainable options have been developed in recent years, such as milled bark, other fibrous materials such as coir, or live sphagnum moss, combined with sharp sand, perlite or vermiculite.

Reference – [rhs.org.uk/soil-composts-mulches/peat-free](https://www.rhs.org.uk/soil-composts-mulches/peat-free)