

Peat-free Compost

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I realised after the feedback from the January meeting that it might be helpful to provide some encouragement to those members who are not yet proficient in the use of peat-free compost. Changing to peat-free compost is something we will all have to get to grips with as peat based compost will no longer be available after 2024.

Finding a good product is the first challenge and it is worth paying a bit more for a good product when you find it as results will be more rewarding in the long run. Hopefully, a season of experimentation, whether with different composts or different techniques, will help clarify what works in your own particular situation.

If you are tempted to make your own mix of compost here is a run-down of potential ingredients:

Topsoil – variable quality and pH and possibly contains pathogens and weed seeds. Garden compost – variable quality and fertility, and likely to contain weed seeds unless you are a master composter!

Green waste – sustainable product usually from local authority garden waste treatment process. Perfect for mulching, but texture and fertility usually too variable to use as basic compost ingredient in large quantities.

Coir – a sustainable by-product best used mixed with other ingredients as pure coir compost is difficult to wet when dried out and has a dense, air-excluding texture.

Bark – a sustainable by-product. Fine composted bark is best. 'Propagation' bark is available at some outlets.

Vermiculite - silicate mineral that is heat treated. It expands hugely and holds air and moisture.

Perlite – volcanic rock that is heat treated. It expands hugely and holds air and moisture.

Sand – use coarse/sharp only, and when bought from a builders' merchant usually has been washed and is perfectly acceptable.

Sterilised soil – can be either a quarried product or treated topsoil with a higher humus content.

Grit – best for topping seed trays etc. (around 4-6mm size) rather than use in ordinary compost.

Ready-made compost

When buying ready-made compost always look for the new stock in bright shiny bags. It may be worth asking how fresh it is because the fertiliser content will start to degrade fairly quickly once incorporated and even fresh stock will only give good growing results over the first 2 to 3 months. If you have old bags left over at the end of the season use it as a garden mulch.

Read the ingredients list (if available) and instructions on bag. Unfortunately, compost make-up is not often stated which makes comparisons difficult. It may be that manufacturers prefer to be able to change formulation easily but I would not buy anything with too much wood fibre in it as it is difficult to work with. Be wary of 'with added John Innes' claims. Compost recipes from the John Innes Horticultural Institute were formulated using soil, peat and sand and varying levels of fertiliser to be complete in themselves to facilitate sowing, cuttings or potting. Adding 'extra John Innes' to a mix is like making a mild Korma curry and adding an unknown sized spoonful of hot Madras powder – a very unpredictable result. There is now an official formulation for peat-free John Innes compost and although the bags currently available are a little more expensive they will be worth getting for long term potting purposes.

Store unused compost in dry and preferably dark conditions to preserve fertility for as long as possible before use.

Potting

I always think the ultimate test of a compost is - is it nice to get your fingers into? A pleasing friability often means a good texture without big amorphous lumps and which maintains the best structure for rooting. Strong firming of peat compost around plants was normal in order to remove voids and keep the plant in position in the pot. Most peat-free compost will need much less work, and heavy-handed firming around plants will tend to remove air spaces essential for root growth. Sometimes just tapping a full pot on the bench is enough to settle the compost well enough.

Even if the compost says 'Multi-Purpose' on the bag, do be prepared to adapt the mix to the task in hand. Most composts are fine used to plant up annuals and summer season subjects, in situ for just one growing season, and even then there may be a need for supplementary feeding later in summer as the fertiliser is used up or leached out. Seed sowing, cuttings and long term potting will need the addition of other ingredients to be successful.

Watering

The watering of peat-free compost is not a more difficult task than a peat based medium – it is just different.

When initially potting a plant using peat-free, water well and, when settled, lift it up to gauge the weight in your hand. The surface of the compost can dry out before the lower levels run out of moisture so often the best way to ascertain if watering is necessary is to pick up a pot to see if it feels light.

Seed sowing mixes

Although there are peat-free mixes prepared for seed and cuttings use they may not be readily available so it may be easier to learn to adapt ordinary multi-purpose compost to the variety of growing techniques.

Fresh ready-made multi-purpose compost has a high fertility and dense texture. This can inhibit seed germination and prevent good initial root growth. To reduce fertility and add drainage and open up the texture, mix in fine composted bark and/or perlite and sand.

Potential mix to try:

3 parts ready-made compost (not too coarse – sieve if necessary) to 1 part perlite/vermiculite and 1 part coarse washed sand/fine composted bark.

Cuttings mixes

The best mixes for cuttings have a very low fertility and good aeration. Again high fertility can inhibit the start of root growth and a dense compost may rot the roots before they establish.

Potential mixes to try:

1 part coarse sand/grit/perlite to 1 part fine composted bark

or

1 part sand to 1 part ready-made compost (sieved if too lumpy)

or

1 part perlite to 1 part composted bark to 1 or 2 parts ready-made compost

or

2 parts perlite to 2 parts composted bark to 1 part sand to 2 parts ready-made compost

Use some plant material that is generally fairly easy to strike and try in several different mixtures to find your optimum recipe.

Long term potting

To keep a perennial such as a Hosta or a shrub happy in a pot for more than one season I think the answer is adding something like 15 to 20% of sterilised soil to the ready-made compost and some granular slow release fertiliser (going on the dose rate recommended for the compost volume used). There are several reasons for this but mainly it lies with the ability of the soil to lock molecules of fertiliser in to be made available to the plant. Also, compost with a soil content is much easier to wet if it gets dry and for plants propagated and grown on in pots, to be put into the garden later, the establishment is much more assured even in heavy soil.

This is definitely the moment when some experimentation using something easy and undemanding could help smooth out the path to successful peat-free perfection. Treat it as your year of discovery and who knows it might turn out to be fun.