Quality compost for growing media

PEATLESS Project
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The problem

Rising peat costs and sustainability concerns are accelerating demand for **alternative growing-media ingredients**. Compost, already common in hobby gardening, is increasingly used in **professional nurseries**.

The solution

Green- and food-waste compost is **recognised under EU Regulation 2019/1009 (CMC 3, PFC 3)** and most national laws as both a fertiliser and a growing-media ingredient.

Benefits

Locally available compost is generally **cheaper than peat, coir or wood fibre**. In peat blends, its alkaline pH helps optimise substrate pH and limit shrinkage. Its nutrients can **reduce fertiliser needs,** while its **high cation-exchange capacity improves nutrient retention**. It may also suppress soil-borne pathogens.

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Practical Recommendations

- As an innovative ingredient, compost also brings challenges that must be understood to make the most of its use.
- Its pH can be too high when used at high rates, requiring correction of substrate reaction.
- Salinity can vary considerably between products and must be checked during compost selection.
- Its hydrological properties are generally less favourable than peat's, which may require adjustments to irrigation protocols.
- Solutions to overcome these challenges fall broadly into two groups.
- The first is compost selection: growing media producers need to choose products that fit their formulation needs.
- The second is the design of blends that enhance compost's beneficial properties while minimising, its drawbacks.

About PEATLESS and this Practice Abstract

This practice abstract was elaborated in the framework of the PEATLESS project, based on the EIP AGRI practice abstract format. © 2023
Project dates: from May 2025 to April 2028.
Goal: To characterise sectorial needs at selected systems towards tailoring PEATLESS alternative substrate blends to overcome identified barriers for peat reduction in horticulture.

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