Residue Management and Hygiene Measures

PEATLESS Project
Practice Abstract No. 5

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The problem

In seedling production, **crop residues, used growing media, contaminated trays, tools and irrigation water** can act as sources of pathogen inoculum and spread diseases between production cycles. Infected plant material may harbour pathogens when environmental conditions are favourable. Pathogens may be present **without visible symptoms** so visual cleanliness does not guarantee that equipment or surfaces are free from contamination.

The solution

Disease prevention requires a **hygiene programme combining quick residue removal by cleaning**, appropriate disinfection and prevention of recontamination. Disinfection lowers contamination but does not ensure complete sterilisation. When transitioning towards peat alternatives, the same high standards remain essential.

Benefits

Good hygiene practices **reduce pathogen sources and interrupt disease spread** protecting future seedling batches and improve production reliability.

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Practical Recommendations

- Diseased plants and associated growing media should be collected in closed containers and handled separately from propagation activities.
- Untreated residues and spent substrates should never be reused in seedling production.
- Reusable trays, benches and tools must be cleaned to remove soil, roots and plant debris before disinfection.
- Additional measures include removal of plant waste, maintaining drainage, controlling weeds and algae, protecting clean materials from contamination and separating tools used in clean and contaminated areas.
- Staff should follow proper cleaning procedures.
- Keeping records of cleaning and disinfection activities helps ensure consistency and supports investigation of recurring problems as damping-off, root rots and foliar diseases.

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
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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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