Main pests affecting vegetable seedling in plug-tray nurseries

PEATLESS Project
Practice Abstract No. 3

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The problem

Vegetable seedlings grown in multicell plug trays are vulnerable to **thrips, whiteflies, aphids, and fungus gnats**, among others. High plant density favours **pest infestations**, which can reduce seedling vigour and uniformity, transmit plant viruses, damage young roots, and be carried with transplants to the field or greenhouse.

The solution

Pest management should combine **exclusion, hygiene and early detection**. Keep production areas free of weeds and crop residues and use **insect-proof screens** where appropriate. Inspect both the plant canopy and the growing medium. Sticky traps detect flying adults, while visual inspection is essential for finding immature stages and **early feeding damage**. These principles remain equally important when transitioning towards peat alternatives.

Benefits

Early detection helps maintain **uniform, marketable transplants**, reduces virus risk, prevents pest introduction into the crop, and supports **integrated pest management**.

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Practical Recommendations

- Inspect trays weekly, especially young leaves, leaf undersides and tray edges.
- Place sticky traps just above the canopy for thrips and whiteflies, and near tray level for fungus gnats.
- Keep weeds and plant residues away from the nursery.
- Avoid prolonged surface moisture and algal growth, which favour fungus gnats.
- Identify the pest before choosing biological, physical or chemical control measures.

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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