Selecting reduced-peat blends for seedling growing media

Alternative Materials

7 raw materials.

- Hemp fibre
- Sunflower fibre
- Spent Mushroom Substrate (SMS)
- Biochar
- Wood fibre
- Composted bark
- Green compost

From screening to validation

A progressive selection pathway to identify the most promising growing media.

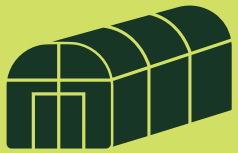
1 Candidate blends

12 candidate blends

2 Selected for research validation

5 selected blends

3 Selected for commercial demonstration



4 blend variants

The 5 selected blends for validation

Growing media combinations evaluated in plant trials.

- Peat + wood fibre + composted bark + SMS
- Peat + wood fibre + composted bark + green compost + SMS
- Peat + wood fibre + composted bark + green compost + sunflower fibre
- Peat + wood fibre + composted bark + green compost + hemp fibre
- Peat + wood fibre + green compost + SMS

How were blends selected?

- Technical criteria
- Plant trial results
- Joint expert review

(ZHAW facilities)

(ZHAW facilities)

Key message for growers

Peat reduced to 30% without compromising plant growth. Next step: assess compressibility and field performance.

Current status and next steps

4 blends selected. Challenges: high salts, variable compost quality and greater salt sensitivity in lettuce.

*This project has received funding from the European Union's Horizon Europe research and innovation programme under **Grant Agreement No 101216569** and by the Swiss State Secretariat for Education, Research and Innovation (SERI). Views and opinions expressed are however those of the PEATLESS project only and do not necessarily reflect those of the European Union or the European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them."*

Project funded by

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs, Education and Research EAER
State Secretariat for Education, Research and Innovation SERI

Funded by the European Union