

## Project description

### „Regional residues and renewable raw materials as peat substitutes | Processing - Utilisation - Evaluation (NWG-Torfersatz)“

The 'NWG peat substitute' project is investigating the use of regional residues and renewable raw materials as peat substitutes in potting soils and growing media. The aim is to reduce the use of peat in horticulture and replace it with more environmentally friendly alternatives. Using an interdisciplinary approach, the ecological, economic and social aspects of these new substrate materials are being comprehensively assessed.

The project is being carried out in close co-operation between several research institutions. It is coordinated by the Weihenstephan-Triesdorf University of Applied Sciences (HSWT) in Freising, which is represented by the Institute of Horticulture (IGB). The Rosenheim University of Applied Sciences (THRO) and the TUM Campus Straubing for Biotechnology and Sustainability (MNR-TUMCS) are involved as co-operation partners. The project comprises several specific subtasks that are coordinated by the participating institutions:

- **Subtask A (HSWT):** Evaluation of new peat substitutes and development of methods for quality assessment and peat quantification.
- **Subtask B (THRO):** Processing of regional residuals and renewable materials for use as a peat substitute
- **Subtask C (MNR-TUMCS):** Sustainability assessment of peat substitutes, including the life cycle impact assessment, economic and the social sustainability

The Weihenstephan-Triesdorf University of Applied Sciences is responsible for the overall project management as well as the qualitative analyses of the peat substitutes and will also carry out the plant cultivation trials. These trials are focused on testing the suitability of the new substrates for use in horticulture, with both laboratory and practical experiments being carried out. The Technical University Rosenheim is responsible for the processing of regional residuals and renewable raw materials. This includes the procurement, processing and optimisation of the materials to ensure their suitability as substrate feedstock.

The TUM Campus Straubing is dedicated to the comprehensive sustainability assessment of the new peat substitutes. As part of the sustainability assessment (subtask C), the environmental impacts of the new peat substitutes are systematically analysed along the entire value chain. The focus of this investigation is on recording and analysing basic production and processing data. Life cycle assessments will be

used to identify both the ecological benefits and potential ecological impacts of the new substrates in order to enable a well-founded assessment of their sustainability.

In addition, measures to introduce these new peat substitutes into horticultural practice are to be implemented as part of the project. This also includes adapting cultivation methods for users and producers in order to support the switch to peat-free growing media.

The long-term objective of the project is to increase the use of peat substitutes significant in growing media, in order to reduce the ecological impact of horticultural products. Interdisciplinary cooperation and systematic evaluation are also intended to expand scientific expertise in this area and lay the foundations for future sustainable developments.

The project is funded by the Federal Ministry of Food and Agriculture and runs from 01.07.2023 - 30.06.2026.

Project sponsor:



Project founding:

Gefördert durch



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