



Project title: Wood protection realised by functional textiles

Partner: FBW GmbH, Niederzier (DE);
Reimann – Spinnerei und Weberei GmbH, Emsdetten (DE)

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Funding agency: BMWi (ZIM)

Mission Statement

The aim of the project is the development of an insect protection net for biological protection against insect pests in logged timber. Currently, the wood is protected by insecticides, which are harmful for insect pests but also other organisms. In order to protect beneficial insects and other organisms, the protective function of the net is based on aversive rather than killing methods. Furthermore, the net should be reusable and easy to install and uninstall.

Project content

In the project, a compound based on a polymer and a functional odorous substance is developed. The odorous substance is chosen according to its repellent effect on wood pests. Subsequently the compound granulate is spun into a functional synthetic filament which is emitting the odorous substance on a long-term basis due to the compounding process. The filaments are investigated according to optical, mechanical and functional properties and afterwards processed to a textile net. Finally, also the mechanical properties of the net are investigated and the function of warding off insect pests is validated.

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Contact

Elena Schüll
elena.schuell@ita.rwth-aachen.de
0241 80 23400

Univ.-Prof.
Prof. h.c. (Moscow State Univ.)
Dr.-Ing. Dipl.-Wirt. Ing.
Thomas Gries
Head of the institute

Elena Schüll
Scientific Associate

Jonas Hunkemöller
Scientific Associate

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