

biogas4textile – Concept for the combination of wool washing, plant fibre opening with biogas plant

Problem / Motivation

- Lack of industrial-scale capacity for washing domestic sheep's wool
- Reproducible conditioning of indigenous fibre plants for fibre opening
- Rising resource costs (energy, water, auxiliary material resources)

Solution

- Increasing the added value of biogas plants beyond pure energy production
- Small-cycle wool washing in combination with plant fibre wet opening
- Use of energy and process heat from the biogas plant as well as wastewater treatment and working with odour-intensive substances in the cycle
- Optimisation of the microorganism population in plant fibre wet retting and biogas plant
- Bundling various competences in fibre processing and fibre quality assessment

Project Launch

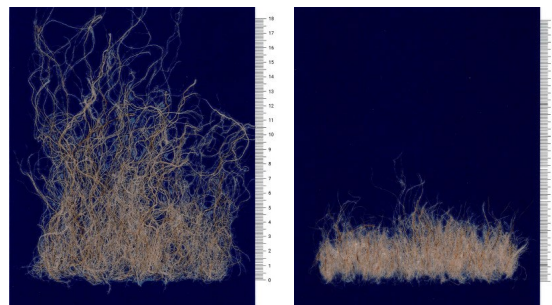
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Hemp mowing with field placement (left) and after field drying (right) © Farmhus materials GmbH

Project Partner

A total of eleven partners: three farms producing bast fibre plants, three fibre-producing or fibre-processing companies, three research institutions, the Thuringian State Office for Agriculture and Rural Areas and a project



SEM image of hemp fibres: mechanically (left) and wet-opened (right)

Acknowledgement

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