

Innovative Technique for Early Thinning of Young Forests – Project "Mini-Harvester"

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The research project "Development of an innovative fully mechanized method for precommercial thinning" aims to increase the production of woody rawmaterials by easing the harvest of small trees in early thinning.

Early thinning is an important tending measure in young forests to stimulate the growth and biomass production of trees. It increases the vitality, stability and quality of forests. The effects of early thinning can be observed over the whole life span of forest stands. It also results directly in significant amounts of woody biomass that is much in demand for industrial and energy production. Early thinning is costly and time-consuming, and damages to the soil and remaining trees can occur. Large machinery can be used only under certain conditions.

Within the project, researchers, forest practitioners, mechanical engineers and software specialists cooperate in developing and testing an innovative harvesting technique. A small harvesting machine has been designed and constructed specifically for this purpose. This harvester is very narrow and versatile and the traction power is distributed evenly to the ground. The harvester can move easily in forests; impacts to the soil are minimal. The thinning technique is designed for professional use. The productivity will be tested under a range of harvesting conditions that are typical for Central Europe.

Funding: Federal Ministry of Food and Agriculture

Duration: 2015 - 2018

Project Partners:

- Technische Hochschule Wildau
- Tyroller Hydraulik Herzberg
- Möhle und Braker Datentechnik







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Federal Ministry of Education and Research

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****** The Research Group Transport Logistics at the Technical University of Applied Sciences Wildau – Our portfolio

The Research Group Transport Logistics analyses and develops new solutions and technologies in the field of logistics in cooperation with business partners.

Selection of our research core themes:

- Warehouse logistics with an interface to the external logistics. For example: location analysis and selection for the optimization of logistics processes.
- Development and implementation of ICT-systems. For example: intermodal routing tool for planning intermodal transports.
- Macro logistics: transport-related development and strategies in the commercial transport. For example: identification of transport flows.
- City logistics: Development of new supply chains. For example: business modeling and development of urban freight hubs.
- Analysis, evaluation and testing of new technologies in transport. For example: electromobility.
- Logistics for the timber and wood business. For example: implementation of RFID solutions in the wood supply chain.
- Consultation of political decision makers. For example: Study "Logistics in East Germany".







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