

Master Thesis (m/f/d): Systematic Review and Meta-Analysis on Woody Mulches in Perennial Cropping Systems

6-month thesis project · Justus-Liebig-University Giessen

Background

Wood chips, bark mulch, sawdust, and ramial chipped wood (RCW) are widely used in orchards, vineyards, berry plantations, and tropical plantation systems — yet a quantitative synthesis of their effects on yield, soil moisture, weed cover, nitrogen dynamics, soil organic carbon (SOC), and soil microorganisms is still missing.

The Project

You will conduct a full systematic review and meta-analysis following PRISMA 2020 standards: protocol pre-registration, literature search in Web of Science and complementary databases, structured title/abstract and full-text screening, data extraction, risk-of-bias assessment, and quantitative synthesis in R (**metafor**). Co-authorship on the resulting publication is anticipated.

Requirements

- Bachelor's degree in agricultural, environmental, or life sciences (open to all disciplines)
- **Prior experience with systematic reviews or meta-analyses** (hard requirement)
- **Solid R skills from day one**
- Excellent English, strong self-organization

We Offer

Close weekly supervision, methodological mentoring, access to Web of Science, a pre-validated search string, and a clearly defined 6-month project with high publication potential.

Application

Please send your motivation letter and CV to the contact below.

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