



Fachgebiet Pflanzenbau/ Department of Agronomy (340a)
*** The following thesis can be written in English or German***
Bachelor-/Masterthesis

30.05.2023

On-Farm-Monitoring: Influence of landscape on pollinators and other beneficial insects in buckwheat (*Fagopyrum esculentum* Moench) cultivation

BACKGROUND: In Baden-Württemberg, around 46% of the state's land is used for agriculture. However, biodiversity in the agricultural landscape has declined sharply for numerous species in recent decades. A key measure for increasing biodiversity in agriculture is seen in the introduction of new crop species or the rediscovery of old crop species, which usually require lower management intensity. For this reason, the cultivation of buckwheat holds great potential to counteract this trend while contributing to a more regional and "biodiversity-friendly" agriculture.

PROJECT DESCRIPTION: Within the scope of this project the diversity of pollinators and other beneficial insects in buckwheat stands in different cultivation regions in Baden-Württemberg will be recorded, and thus the contribution to biodiversity regarding the respective cultivation method and environment will be determined.

The aims will be achieved by conducting insect monitoring in cooperation with the Julius-Kühn-Institut (Department of Beneficial Organisms & Functional Biodiversity) and the Center for Biodiversity and Integrative Taxonomy (KomBioTa) at the University of Hohenheim.

Specifically, the following goals will be addressed in this work:

- Determine species diversity and abundance by comparing different methods (nets and insect traps) of insect monitoring
- Characterize the factors that influence the diversity and abundance of these insects
- Improve understanding of the relationships between biodiversity and land use

WHAT WE ARE LOOKING FOR:

- Independent execution and documentation within the scope of the work package defined for the master's thesis
- Reliable and structured way of working
- Interest in insect monitoring and hands-on mentality
- Drivers Licence necessary

PROJECT START: Summer 2023

Please contact me if you are interested or wish for more information.

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Buckwheat inflorescence, F. Longin and A. Mrasori, Uni Hohenheim