

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

Exact-Trial: Impact of different buckwheat (Fagopyrum esculentum Moench) varieties on yield and quality parameters

BACKGROUND: After buckwheat was still a widespread staple food and animal feed in Germany until the 19th century, the importance of its cultivation in Europe declined with the introduction of potato and the intensification of agriculture. In the last 20 years, buckwheat has come back into focus due to changing dietary habits and is now considered an extremely valuable functional food. Buckwheat is a very interesting crop with many advantages (Undemanding in cultivation, excellent weed suppression capacity), not only from an agronomic point of view (Contains high crude protein content, a balanced ratio of amino acids, gluten-free).

However, there are some tremendous disadvantages such as uneven flowering and maturity, making it difficult to choose a harvest date, and highly variable yields.

Buckwheat will be grown at the experimental station Heidfeldhof to determine the yield and quality parameters of different varieties.

PROJECT DESCRIPTION: Within the scope of this trial, the impact of different varieties on yield and quality parameters of buckwheat will be determined. The results will contribute to a profitable buckwheat cultivation in Baden-Württemberg.

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

- Effects of different varieties on specific agronomic (e.g. yield, tkm) and quality traits (e.g. protein, amino acid profiles)
- Determination, comparison, and evaluation of those traits in order to provide a cultivation recommendation for buckwheat

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 and motivation to conduct field
 work
- Communicative and hands-on mentality



Seeds of different buckwheat varieties, E. Häfele, C. Baier, K. Yasaminshirazi, I. Jenickei, Uni Hohenheim

PROJECT START: Summer 2023

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