Call for Master's Thesis (MSc)

Wild plant mixture in agriculture: Is the biomass production promoting biodiversity and preventing soil erosion? An analysis of the „Veitshöchheimer Hanfmischung“ in the Rhön-Grabfeld district in northern Bavaria

**Topic:** The referendum for more biodiversity in Bavaria 2019 showed how important the preservation of biodiversity is. This confronts many farmers with the question on how they can preserve biodiversity without endangering the profitability of their farms. One novel approach that combines biodiversity and productivity grassland is the use of wild plant mixtures for biomass production. Against this background, the Bavarian Farmers Association has launched the project “Wildpflanzenmischung”.

The project is based on an initiative of various farmers in the northern Bavarian district Röhn-Grabfeld including the Bavarian State Research Center for Viticulture and Horticulture (LWG), the Bavarian Nature Conservation Fund, the Bavarian Farmers Association and Agrokraft GmbH. The aim of the project, which is running since 2018, is the evaluation of a novel wild plant mixture (developed by the LWG) for the production of bioenergy.

The tasks of this thesis include the analysis of the different geosystem performances of the „Veitshöchheimer Hanfmischung“ using a high resolution remote sensing time series. This includes the derivation of the duration and intensity of the vegetation cover, the evaluation of the soil erosion potential of the respective fields as well as the objective assessment of the crop yield potential and comparison with the expectations of the farmers.

**Requirements:** B.Sc. degree or almost completed MSc. degree in the field of geographical remote sensing, geography, soil science or comparable, interest and/or previous knowledge in field work, interest in ecological issues, previous knowledge in remote sensing, previous knowledge in spatial statistics and geoinformation systems

**Place of work:** The place of work is freely selectable. Regular meetings with the supervisor and presentations to introduce the topic are required. The possibility for a two-week internship at Agrokraft GmbH exists.

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