

February, 10th 2022

Leibniz Centre for Agricultural Landscape Research (ZALF), WG Isotope Biogeochemistry and Gas Fluxes offer a

Master/ Bachelor Thesis Project (Master-/ Bachelorarbeit)

We are looking for motivated Bachelor/Master student who is interested in the topic of N cycling in agricultural used landscapes and its spatial and temporal dynamics.

N₂O Emissions and their relationship to leaf N

Background. The working group Isotope Biogeochemistry and Gas Fluxes studies dynamics of bVOCs, C and N in agricultural landscapes using mass spectrometry, gas chromatography, spectroscopy and optical methods as well as isotope dilution and tracer techniques.

Within the project "Optimal-N" (dealing with N cycling in agricultural used landscapes) a ZALF customized, low-cost, handhold, multispectral sensor device was developed with the aim to determine leaf N. In addition

it is planned to monitor N₂O emissions in highly heterogeneous agricultural landscapes. The coupling of those two approaches will increase the understanding of nitrogen dynamics and losses in new agricultural landscapes.



Master Thesis Project. What can you expect?

You will organize and conduct measurements for the monitoring of N₂O emissions, plant measures such as NDVI, RVI, plant height and Leaf N, at the on-farm field trial in Tempelberg (15 min. from ZALF). Additionally you will test the Leaf N Sensor for its ability to obtain leaf N. Analyses will be done with the statistical software R. Previous knowledge is advantageous but not a requirement. During the measurements and evaluations you will benefit from a close cooperation in a collegial, dynamic and open-minded team.

If you have any questions, please do not hesitate to contact us:

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We look forward to receiving your application!