The Leibniz Institute for Agricultural Engineering and Bioeconomy is a pioneer and a driver of bioeconomy research. We create the scientific foundation to transform agricultural, food, industrial and energy systems into a comprehensive bio-based circular economy. We develop and integrate techniques, processes and management strategies, effectively converging technologies to intelligently crosslink highly diverse bioeconomic production systems and to control them in a knowledge-based, adaptive and largely automated manner. We conduct research in dialogue with society - knowledge-motivated and application-inspired.

Subject to the approval of funds, as part of the project "Knowledge-based precision crop production in a mixed farm (DigiMix-PA)" the following position is to be filled as of October 1st, 2022

**Scientist (m/f/d) (100%)**

- Data Scientist, Agronomist, Agricultural Engineer–

for the research field

„Site-specific, combined organic-mineral N-fertilisation“

The objective of the collaborative project is to test, investigate and demonstrate a digitalised process chain for knowledge-based and site-specific crop production in a mixed farm in Brandenburg. You will measure the nutrition status of soil and plants as well as nitrogen (N) application by organic fertilisers (manure) and mineral fertilisers during on-farm experiments at the Leibniz Innovation Farm. You will apply innovative data scientific methods in order to assess precision of nutrient application, N uptake and N use efficiency for site-specific mineral and organic fertilisation. The position is assigned to the ATB’s research group “Automation and Digitalisation” in the “Engineering for crop production” department in close cooperation with the “Technology Assessment and substance cycles” department, and external partners at Technische Universität Berlin, University of Potsdam and German Research Centre for Geosciences (GFZ).

**Your responsibilities**

- Organising, executing and evaluating an on-farm field experiment including manure, plant and soil sampling and lab analyses
- Tracking of total nitrogen application and nitrogen uptake of site-specific, combined mineral and organic fertilisation, and analysis of nitrogen use efficiency
- Analysis of technical precision of nutrient application
- Development of optimised application strategies for combined organic-mineral N-fertilisation
- Presentation of project results at scientific conferences and stakeholder meetings
- Writing project reports and scientific publications

**Your professional qualification profile**

- PhD in the fields of agricultural engineering, agronomy, data science or related subjects
- Knowledge and experience or willingness to become familiar with most advanced methods, in particular measuring N content in manure (Vis-NIR) and data science methods
- Scientific software development, experience in programming in either one language Python, C/C++, or MATLAB/Simulink or similar
- Knowledge in machine learning and statistical data analysis
- High interest in interdisciplinary cooperation at the interface of agronomy and digital technologies
- Very good written and spoken English skills, German is of advantage
- Ability to work in a team and willingness to cooperate, reliability, flexibility, personal commitment and independent work
- European Driving license class B
We offer

- An attractive, interdisciplinary working environment in a mixed team of experienced and young scientists and technicians
- Excellent infrastructure for carrying out scientific work
- Access to national and international networks for your scientific career
- Family-friendly working conditions that promote the compatibility of work and family life
- Company-owned electric bicycles and business cars for work trips
- Participation on the VBB company ticket
- Our institute is located on the edge of a picturesque park-like landscape and is easy to reach by public transport or by bike

The position is full-time (100%) and limited to three years. An extension for a further two years is possible subject to the approval of the requested funding.

Remuneration depends on your qualifications and professional experience according to TV-L up to salary group 13. For further information please contact Prof. Dr. Cornelia Weltzien (E-Mail: cweltzien@atb-potsdam.de) and visit our website www.atb-potsdam.de.

If you would like to participate in our interdisciplinary research, please apply by August 31st, 2022 using ATB’s online application form for the job advertisement, code 2022-4-12, at https://www.atb-potsdam.de/en/career/vacancies.

Equality of opportunity is part of our personnel policy. Disabled applicants with adequate qualification will be preferentially considered.

By submitting an application, you agree that your job application documents will be stored for a period of six months, even in the case of an unsuccessful application. Further information on the processing, storage and protection of your personal data can be found at https://www.atb-potsdam.de/en/services/data-protection-declaration-for-the-application-process.

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