

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.

In the research program “Precision farming in crop and livestock production”, the working group “**Water productivity in agriculture (Agrohyd)**” works on the assessment of water use in agricultural systems by improving precipitation and technical water productivity through the modeling of the effect of farming measures in crop production and livestock production.

The working group “**Water productivity in agriculture (Agrohyd)**” is looking for a

Supervision of BA and MA Theses

The working group is currently working on the topic “**water scarcity impact assessment**” considering the contribution of agriculture and livestock water uses to water scarcity and the related potential environmental impacts resulting from deprivation of other human or ecosystem water users, including supply chain water consumption. At least two water scarcity assessment methods are being applied in a case study, in Brazil, in a study area where 115 farms are located, focusing on the regionalization of water scarcity factors.

We offer two proposals of study:

- a “literature review” about the methods (and uncertainties associated) for water scarcity assessment and its potential impacts considering the water consumed by livestock activities focused on studies developed in Brazil and Germany;

or

- an “empirical study” focused on the regionalization of the characterization factor (CF) used in the AWARE method to assess water scarcity in a watershed located in Germany including a literature review of the method and a discussion about its application taking into account the agriculture and livestock water demands.

Your qualifications

- English language is required
- Knowledge in agriculture and livestock is desirable
- Independent work, personal commitment, reliability, enjoyment of basic science, solution-oriented action, ability to work in a team and willingness to cooperate

We offer

- Supervision of your thesis
- Attractive, interdisciplinary working environment and very good conditions for developing your scientific career and network
- The best prerequisites for independent, interdisciplinary research in an ambitious team and with modern and excellent infrastructure
- Access to national and international networks for your scientific development
- Extensive remote work opportunities

For further information please contact **Sofia Helena Zanella Carra** (E-Mail: szanella@atb-potsdam.de, phone: 0331-56 99 218) and visit our website www.atb-potsdam.de.