Job vacancy at the Johann Heinrich von Thünen-Institute

The Institute of Climate Smart Agriculture, one of 14 specialized institutes of the Johann Heinrich von Thünen Institute, Federal Research Institute for Rural Areas, Forestry and Fisheries, invites applications for a

Scientific assistant position

with 65 % of the regular working time from 16.01.2018 for a period of 6 months. The successful applicant will collect and process data on the pH state and liming practice of agricultural soils in North and Central Europe.

Requirements:

- A Master's degree in agricultural science, environmental science, geoecology, physics (or equivalent)
- Experience with process based modeling of soil- vegetation- atmosphere (SVAT) systems
- Experience with a scriptable programming language (Python, R)
- Experience with GIS systems (ArcGIS, GRASS)
- Solid knowledge of carbon and nitrogen cycling in SVAT systems
- Highly motivated and creative personalities
- Excellent written skills in English
- Willingness to travel to conferences and workshops within Europe

Employment complies with the German wage agreement for the civil service sector (TVöD Bund), salary group
E 13.

The temporary employment period is in accordance with § 14 Abs. 2 of the German Teilzeit- und Befristungs-gesetz. The announcement is therefore addressed exclusively to persons who have not been employees of the Federal Republic of Germany with either a time-limited or unlimited contract.

The Thünen Institute promotes the professional equality of women and men and thus expressly welcomes applications from women.

Handicapped persons with equal qualifications will be particularly considered. The positon requires only a minimal level of physical ability.

If you have any questions about this job vacancy, please contact Rene Dechow (rene.dechow@thuenen.de, Tel.: +49 531 596-2722).

Written job applications together with curriculum vitae, tabular overview of your educational and professional career as well as copies of testimonials and certificates preferably via e-mail in one PDF file should be sent by **10.12.2017** with the code word **"MAGGE-pH modeling"** to:

ak@thuenen.de

Johann Heinrich von Thünen-Institut
Institut für Agrarklimaschutz
Bundesallee 65
38116 Braunschweig

Index number: 17-260-AK-engl

Job vacancy at the Johann Heinrich von Thünen-Institute

In Germany, agricultural soils are the major source of nitrous oxide emissions a potent greenhouse gas. Recent findings indicate that the pH of soils regulates enzymatic activities within the denitrification chain and thus the amount of nitrous oxide emitted to the atmosphere by agricultural soils. Therefore climate smart pH regulation within agricultural practice could mitigate nitrous oxide emissions.
The project MAGGE-pH will examine mitigation potentials of climate smart pH regulation by field experiments and modeling. In case of approval the employment of a scientific assistant for further 27 months with 65% of the regular working time is planned.
Based on the experimental work, the successful candidate will analyze mitigation efficiencies and trade-offs of pH management at different spatial scales using process based and empirical models.

Tasks:

- Data management: Collecting and processing of data from lab and field experiments and data on pH state and management within the targeted region (North and Central Europe and New Zealand)
- Up-scaling of the pH state based on data sets from pH surveys, soil, climate, geolocic maps
- Modeling pH effects on production and GHG emissions of agricultural soils using biogeochemical models
- Implementation of the pH effect on direct nitrous oxide emissions into empirical models. Up-scaling of this effect to the target region
- Processing model output data in order to support the evaluation of incentives or regulations by agro economic modeling
- Cooperation with project partners in particular with the project partners of the Thuenen Institute of Rural Studies responsible for the agro economic modeling and colleges at the Thuenen Institute of Climate Smart Agriculture conducting mesocosm experiments
- Publications in peer reviewed journals