With its work, the Leibniz Institute of Vegetable and Ornamental Crops (IGZ) contributes to a better understanding of plant systems and thus to the development of sustainable and resilient horticulture. The IGZ conducts research at the interface between plants, humans and the environment. In doing so, we address systemic and global challenges such as biodiversity loss, climate change, urbanization and malnutrition. We provide scientifically sound recommendations for healthy agri-food systems and sustainable interactions with the environment. The IGZ brings together a broad spectrum of scientific disciplines. Employees with different backgrounds conduct research in national and international research co-operations. The IGZ is based in Großbeeren near Potsdam and near Berlin and is a member of the Leibniz Association.

To strengthen our team within the BMEL funded project "Reduction of nitrous oxide and ammonia emissions through processing crop residues in vegetable farming" we look for an enthusiastic and ambitious

Scientist (f,m,div) in the area "Assessment of N-Emission in open-field vegetable production"
Reference Number: 09/2024/4

The employment will be initially from the earliest possible date until 31.03.2027. The salary will be based on qualification and research experience according to the wage agreement TV-L, up to pay scale 13, full time.

The scientist will be part of the research group HORTSYS-Controlled environment horticultural systems. One of the main areas in this research group is systems modelling and environmental assessment. In the national BMEL funded project NemGem ("Verringerung der Lachgas- und Ammoniakemissionen durch Verarbeitung von Ernterückständen im Gemüsebau" - Reduction of nitrous oxide and ammonia emissions through processing crop residues in vegetable farming) focusing on the effect of green mulching on environmental effects, the IGZ participates as the lead partner within a consortium of four partners. In NemGem, we will use our experimental back-ground to assess the yield effectiveness and nitrogen efficiency of upgraded white cabbage residues at the IGZ and at two demonstration farms. The successful candidate will involve various fertilization treatments based on the incorporation of differently processed crop residues compared to control treatments (incorporation of crop residues directly after harvest, no incorporation of crop residues with/without mineral fertilization). Laughing gas measurements will be carried out both in closed hoods and using a multi-gas sensor at selected locations. Activities in the NemGem project will be done in close cooperation within the consortium, including common workshops, and field visits.

Tasks include

- data management and systems modelling
- planning and conducting field trials at the IGZ and with two practice partners
- theoretical and practical assessment of plant – soil interaction in field crop cultivation
- measurements of gaseous N-emissions in field experiments
- collection of soil samples and analysis of N_{min} content, soil texture, N_{org} content, C_{org} content, C:N ratio, pH, and EC
- mathematical modelling of cropping systems and N-emissions
- conducting environmental assessment with LCA-methods
- simulation studies and environmental systems analysis
- planning, managing and supervising experimental work
- supervising PhD and MSc students
- writing scientific publications and presentation of results to the international project consortium and scientific audience

We are looking for highly motivated candidates with the following qualifications and profile

- a PhD within the field of horticulture or crop science with background in field vegetable production
- experience with scientific and/or applied horticulture and in crop cultivation techniques and in nutrient uptake
- experience with climate models, crop models and/or environmental modelling
- knowledge of mathematical analytics and ability to translate processes to equations and to systems
- experience in environmental assessment and usage of tools as e.g. SimaPro
- experience in scientific guidance or supervision of bachelor, master or PhD students
- proven track record of publication in peer-reviewed journals
- English language communication on international level
- readiness to integrate into an international working environment

We offer

- an inspiring and dynamic research environment, including state-of-the art research facilities
- participation in an international research project
- participation in a successful, dedicated and team-oriented research group
- flexible and family-friendly working time models and the possibility of mobile working (up to 50% of working time)
- subsidy for the company ticket for local public transport or the Germany ticket

More information on the IGZ under www.igzev.de. For questions please contact: Dr. Oliver Körner (koerner@igzev.de).

We encourage a healthy work-life balance. The IGZ attaches great importance to equal opportunities. Applicants with disabilities will be given preference in case of equal qualifications. The IGZ embraces diversity in its workforce, and welcomes applications from all qualified candidates, irrespective of age, gender, sexual orientation, religion, world view, disability and belief or ethnic origin.

Please send a strong motivation letter stating why this is an interesting topic for you and why you have the right attitude and expertise to contribute to the NemGem project and make progress in this field. Also send your CV, names of two references, copies of academic certificates.
We prefer to receive applications citing the reference number send by email to bewerbung@igzev.de in pdf format by 10.04.2024. Our postal address is: Personalbüro, Leibniz-Institute of Vegetable and Ornamental Crops, Theodor-Echtermeyer-Weg 1, D-14979 Großbeeren.