Dear colleague,

Here at our plant ecology group at SLU Uppsala Sweden we are seeking a highly motivated postdoc to work on modelling of plant-plant and plant-environment interactions to establish predictive understanding of ideal plant mixtures in agriculture for high and stable crop yields, efficient resource use, reduction of losses due to biotic and abiotic stresses, and provision of ecosystem service. This position will be associated with the H2020 project “DIVERSify – Designing InnoVative plant teams for Ecosystem Resilience and agricultural Sustainability” (www.plant-teams.eu).

Deadline for applications: **November 5th, 2017** (Apply by sending an email to registrar@slu.se, referring to the opening code 3718/2017 and attaching the relevant documents as pdf)

Contact person: Giulia Vico giulia.vico@slu.se

More information and application instructions can be found below and at http://www.slu.se/en/about-slu/jobs-vacancies/read-more/?eng=1&Pid=6473

It would be great if you could share this information among colleagues and potentially interested candidates.

Best regards,

Giulia Vico

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**Full description of the opening**

**Postdoc position in modelling plant-plant and plant-environment interactions**
Food security and sustainable use of resources are central to the United Nations Sustainable Developmental Goals by 2030. Improved management of agroecosystems and available resources will be necessary to meet these challenging goals. Among management practices, increasing the diversity of crop systems has been suggested as a way to enhance productivity, resource use efficiency and resilience to environmental fluctuations, and decrease the frequency of pests and disease outbreaks. To exploit in full this possibility, it is necessary to determine the mechanisms promoting positive plant-plant and plant-environment interactions, as well as identify the most suitable plant mixtures for specific pedo-climatic conditions.

We seek a highly motivated postdoc to work with existing mathematical process-based models and to develop novel ones describing plant-plant and plant-environment interactions and their impacts on: crop yields and their stability in the face of biotic and abiotic stressors; efficiency of resource use; and provision of ecosystem service.

This position will be associated with the project “DIVERSify – Designing InnoVative plant teams for Ecosystem Resilience and agricultural Sustainability”, funded within the EU Horizon 2020 framework. DIVERSify aims at optimizing the performance of crop species mixtures to improving agricultural productivity and sustainability, combining field experiments, modelling approaches, and stakeholder involvement (www.plant-teams.eu/).

The postdoc will be based at the Department of Crop Production Ecology in Uppsala. The research conducted within the Department generally aims at improving crop productivity and sustainability. The Department is part of the Ecology Center, which offers a stimulating research environment. The location in Uppsala facilitates further collaborations with researchers at Uppsala University, Stockholm University and KTH.

Duties:

The project will focus on developing, evaluating, and applying process-based mathematical models for the assessment of plant-plant and plant-environment interactions, in arable systems and grasslands. The work will include the use of existing crop models and the development of novel process-based mathematical models, as well as analyses of eco-physiological, environmental and climatic datasets, both existing ones and those collected as part of DIVERSify.

Qualifications:

Applicants shall hold a PhD in ecology, earth and environmental sciences, agronomy, biology, mathematics, or related fields. Applicants shall also have research experience and interest in eco-hydrological or crop models (coupling plants, ecosystems, and environmental conditions). A working knowledge of MatLab, R, or other computational environments and/or previous experience with crop models like APSIM and Daisy are merits. The applicant should have a
demonstrated ability to independently initiate, conduct, and complete research projects and to generate and publish the findings in international peer-reviewed journals. The candidate must have strong written and oral communication skills in English, as evidenced by peer-reviewed publications and presentations at professional meetings.

As postdoctoral appointments are career-developing positions for junior researchers, we are primarily looking for candidates with a doctoral degree that is three years old at most.

Place of work: Uppsala

Form of employment: 100% fixed-term employment as postdoc for two years.

Starting date: By agreement

Application: We welcome your application marked with Ref no. SLU ua 3718/2017.

Please submit your application to the Registrar of SLU, registrar@slu.se, no later than November 5, 2017.

Specific documents attached:

The application package shall include i) a short letter of motivation, highlighting current research interests and other activities of relevance for the position; ii) curriculum vitae; iii) publication list; iv) a two-page research statement and vision; v) the names and contact information of at least two professional references familiar with the applicant's qualifications; and vi) copies of degrees and transcripts of academic records. It is preferable that the documents i)-iv) are submitted in English.

SLU is an equal opportunity employer.

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Giulia Vico

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