

## 1 PhD student in the research education subject: Agricultural Sciences, crop production

### Cropping systems diversification for multiple ecosystem services and sustainable development

Future agricultural systems must ensure the ability to deliver ecosystem services and use ecological principles such as diversity, facilitation and competition in the design of sustainable and multifunctional cropping systems. Eco-functional intensification of production systems is a means of enhancing food, feed and fiber production using functional diversity of systems, ecosystem services and existing knowledge on the ecology of systems. Diversification of cropping systems at multiple temporal and/or spatial scales may enhance the use of natural resources, stimulate biodiversity and the delivery of ecosystem services. Examples of ecosystem services of importance for agriculture of relevance for CSE research are: soil formation, soil fertility, dinitrogen fixation, pest and disease control, water use efficiency and pollination. The cropping systems ecology group performs research and teaching on the effect of diversifying annual, perennial and cover crops by intercropping and rotational designs in arable systems. The announced PhD student position will be related to ongoing research projects and the task will be to design, test and assess the sustainability of diversified crops in food systems. The PhD student will conduct a meta-analysis on a relevant question within the subject diversification of crops or cropping systems, and carry out field experiments in farmers' fields and at the SITES Lönnstorp field experimental station. He or She will compile, evaluate and present data and results, both orally and in writing in different contexts and also have the opportunity to teach at undergraduate level. The work is conducted in a research team within the Cropping Systems Ecology Research group (<http://www.slu.se/en/departments/biosystems-technology/research/cropping-systems-ecology/>), which is an internationally-orientated and interdisciplinary group with an agroecological profile

### Qualifications

A university degree corresponding to Master level within agroecology, agricultural or horticultural science, plant ecology or similar. Knowledge and experience from studies within cropping systems, soil science, nutrient cycling and sustainability assessment are strong merits. Documented experience or knowledge in applied statistics is considered a qualification. A high level of both written and spoken English is required (documentation), as well as a driver's license.

### Forms for funding or employment

Employment as PhD student 4 years

SLU is an Equal Opportunity Employer.

### A person has basic eligibility for third level education

if he or she has taken a second level qualification or has completed course requirements of at least 240 higher education credits, including at least 60 higher education credits at second level. Those who met the requirements for general eligibility before July 1st, 2007, i.e. had completed a programme of higher education for at least 180 Higher education credits or the equivalent, will continue to do so until the end of 2015."

**Selection among applicants meeting the requirements** is made with reference to written application including curriculum vitae, copies of degrees and transcripts of academic records, one copy of the dissertation for masters or undergraduate degree, a list of at least two references familiar with the applicant's qualifications, certified knowledge of the English language and an interview.

**Read more** about the PhD education in [the Handbook for postgraduate students](#)

**Read** about the PhD education at SLU at [www.slu.se/en/education/postgraduate-studies/](http://www.slu.se/en/education/postgraduate-studies/)

Use this [APPLICATION FORM](#)

### Further information:

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**Applications**, marked with **ref no SLU ua 4652/2015**, must have arrived at the Registrar of SLU, P.O. Box 7070, S- 750 07 Uppsala or [registrator@slu.se](mailto:registrator@slu.se) no later than **2016-01-04**.