PhD Studentship

**Project title:** Development of strategies to allow consistent and high quality fruit yields from Everbearer and Junebearer strawberry varieties.

The University of Reading

**Department/School:** School of Agriculture, Policy and Development in collaboration with the School of Biological Sciences.

**Supervisors:** Dr Evangelos Tsormpatsidis and Professor Paul Hadley (School of Agriculture, Policy and Development) and Professor Nick Battey (School of Biological Sciences).

**The Project:**
A fully funded, industry supported PhD studentship is available from January 2013 to characterise the yield potential of key commercial Everbearer and Junebearer strawberry varieties. The PhD will be supervised by Professor Nick Battey and Professor Paul Hadley of the University of Reading and will involve close collaboration with leading UK strawberry growers. The research will involve the systematic characterisation of key cultivars in terms of their responses to environment during propagation phase (time of propagation, nutrition, temperature, light and interactions between these); the over-wintering phase (chilling or thermal time requirements); and the production phase (focusing on high temperature impacts on flowering, fruiting and fruit quality and storage).

**Background:**
The Soft Fruit Technology Group at the University of Reading specializes in the characterization of soft fruit crop responses to the environment, with the aim of optimising crop production techniques. The Group has worked closely with industry partners over the past 20 years on strawberry, raspberry and blackcurrant crops, in order to allow growers to get the best out of their crops and to allow breeders and agronomists to understand better how to exploit the full potential of existing and new genotypes.

**Project Details:**
Associated with this activity, we are now embarking upon an industry-funded PhD which will thoroughly characterise the response to environment of strawberry cultivars during the propagation and cropping phases. This will require experimentation under semi-commercial conditions, with an emphasis on simulating the yield and fruit quality standards achieved by the industry. Experimental treatments will be applied during the summer, autumn and winter with the aim of providing the background data necessary to enable growers to produce plants able to crop consistently during the following
growing season. Additionally, the effects of high temperature on cropping during the growing season will be studied, particularly in relation to ‘thermodormancy’.

The work will be carried out on the Whiteknights campus of the University of Reading and at its field site nearby at Shinfield. Recent initiatives by the University in the area of food security and crop quality for human health (see Centre for Food Security at http://www.reading.ac.uk/food-security) mean that there is a stimulating and active research environment focused on crops research in the School of Agriculture, Policy and Development and this project will be supervised by Dr Evangelos Tsormpatsidis and Professor Paul Hadley from that School, in conjunction with Professor Nick Battey of the School of Biological Sciences. The industry sponsor and associated growers will provide regular and detailed input into the research.

The mission of the research will be to interact with industry in a consistent and committed manner, at the same time as carrying out experiments to the highest standards of technical and scientific precision, so as to generate novel data for the PhD and to provide useful practical information for the sponsor.

Eligibility:
- Applicants should hold a minimum of a BSc Honours Degree at 2:1 level or equivalent in Plant or Biological Science and have a strong interest in environmental and developmental crop physiology.

- Due to restrictions on the funding this studentship is only open to candidates from the UK/EU.

Funding Details:
This is a 3-year Industry funded PhD studentship. The studentship will cover UK/EU Fees and pay the Research Council stipend for 3 years, starting from January 2013.

How to apply:
Eligible applicants are asked to register their interest by e-mailing their CV and a statement regarding their suitability for this research studentship to: Mrs Sarah Swan, Research & Innovation Office Manager, School of Biological Sciences, University of Reading, sbs.pg@reading.ac.uk Please quote studentship reference GS12-26.

Application Deadline: 4pm, 30th November 2012

Further Enquiries:
For further details please contact: Mrs Sarah Swan, Research & Innovation Office Manager, School of Biological Sciences, the University of Reading; sbs.pg@reading.ac.uk; 0118 378 8011.

Bibliography: previous publications involving the Soft Fruit Technology Group

strawberry crops are UV light sensitive, but colour is not a good predictor of several quality parameters. *J. Sci. Food Agric.* 92, 1597-1604.


