Nova Scotia Agricultural College

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Graduate Student (M.Sc.) Assistantship

Using Bees as Vectors of Biopesticides

Supervision: Dr. Chris Cutler, Department of Environmental Sciences

Location: Nova Scotia Agricultural College, Truro, NS

Project: It has recently been discovered that honey and bumble bees can be effective vectors of biopesticides, low-risk biologically based alternatives for pest control. In this novel application technique, bee hives are fitted with dispenser boxes through which exiting bees pick-up the biopesticide on their body; the bees thereafter deliver the biopesticide to plants they visit during pollination. This project will examine utility of the technique for disease management in wild blueberry production. The successful M.Sc. candidate will conduct lab and field studies to determine antagonism levels of various microbial agents against *Monilinia vaccinii-corymbosi* and *Botrytis cinerea* fungi, while running complimentary experiments examining the effectiveness of honey and/or bumble bees as vectors of these biocontrol agents for plant pathogen control. The project also constitutes a component of the NSERC Canadian Pollination Initiative and thus will provide the M.Sc. candidate a unique opportunity to collaborate with a large, national team of scientists on a plethora of issues surrounding pollinators and pollination in Canada.

Qualifications: Applicants must hold honours B.Sc. degree (or equivalent) in biology, ecology, agriculture, or related discipline, and have a first class GPA (80%, A- or 3.7) in the last two years of undergraduate study. Experience and knowledge in entomology and pest management would be a valuable assets. Strong written and oral communication skills are a must.

Stipend: $17,500 per year for two years. Canadian citizens and permanent residents will apply for a NSERC-PGS scholarship valued at $17,300 per year.

Start Date: May 2010

To Apply: For additional information on the research project, please contact: Dr. Chris Cutler, Wild Blueberry Entomology Research Program, Department of Environmental Sciences, Nova Scotia Agricultural College, Box 550, Truro, NS B2N 5E3, Canada; e-mail: ccutler@nsac.ca; Phone: 902-896-2471

Graduate Program Information: For further information on the M.Sc. Program at NSAC and to submit the application, contact Marie Law at mlaw@nsac.ca or visit the NSAC web site at http://nsac.ca/research/graduatestudies/.

The Master of Science program with a specialization in Agriculture is offered by NSAC in conjunction with Dalhousie University