

Graduate Student (M.Sc.) Assistantship M.Sc. Agriculture (Nutrient Management)

Supervisor: Dr. Mehdi Sharifi, Environmental Sciences Department

Location: Nova Scotia Agricultural College (NSAC), Truro, Nova Scotia

Project: Wine grape production is an expanding industry in Nova Scotia (NS). The NS Wine Industry Investment Initiative was created in 2009 with the goal of increasing vineyard acreage in NS from 400 to 1,000 acres, and doubling the number of wineries from 10 to 20 by 2020. A major challenge for the NS wine industry is to maintain strong productivity growth. The highly competitive nature of the wine business requires high productivity with consistent quality of grapes. To achieve this outcome requires sustainable soil nutrient management practices. In some cases, intensive unsustainable production has resulted in soil degradation and increased fertilizer requirements. In this research novel management tools such as cover crops, organic amendments and industrial wastes have been proposed to address these issues. This research study will investigate the benefits of using biowaste compost, wood ash and cover crops in promoting high yield and quality wine grapes, and improving soil fertility and quality while reduce risk of environmental impacts. Soil and plant tests for evaluation of nitrogen, phosphorus, potassium availability and status in grape wines will be also validated. This research project will provided a great opportunity for a M.Sc. student to involve in Sustainable Agriculture research, to collaborate and interact with top research scientists in the region, to interact with agriculture industry, to learn necessary techniques for characterizing nutrient bioavailability, soil quality and soil health. These set of skills can provide the student a great competitive position in the work market.

Requirements: Applicants must possess a B.Sc. Honors degree or equivalent degree in Agriculture, Viticulture, Biology, Environmental Science or Earth Science and be eligibility to enroll in the M.Sc. Program at NSAC.

Stipend: \$16,500 annually for a two-year period.

Start Date: May 2011.

All application documentation should be sent directly to the Research & Graduate Studies Office at NSAC. Applicants must reference this specific research assistantship in their description of research interests to be considered for this position.

For information regarding the research project contact:

Dr. M. Sharifi, Environmental Sciences Department , NSAC, P.O. Box 550, Truro, Nova Scotia B2N 5E3 Canada. Email: Mehdi.Sharifi@agr.gc.ca Tel: 902-679-4333, Fax: 902-679-6062.

For Graduate Program information, or to apply, contact:

Marie Law, Program Assistant. Email: mlaw@nsac.ca Telephone: 902-893-6360, or visit the NSAC website at <http://www.nsac.ca/research/graduatestudies>)

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