

## **What areas of Agroecology can I specialize in?**

The basic program concentrates on providing you with the foundation to specialize in many areas. You can design your own mixture of courses. Common streams are: crop production ecology, environmental policy and law, general ecology, insect biology, pesticides, pest management, water resources, land resource management, livestock management and aquaculture. In addition, our students can take advantage of several minor programs that have recently been developed, so you can get recognized credentials in more than one area!

## **What is the "Agroecology Research Project"?**

Our students do a major project in their last year of study. This is one of the defining features of this degree, with our graduating students telling us that this is a great part of the program. Students get to experience a research project for themselves and work closely with a professor in a research environment. They then have a completed report to show employers, plus a letter of reference from their advisor that can make a huge difference when looking for a job.

These projects are wide ranging. Some students do projects involving laboratory studies or field collection of data followed by analysis and interpretation. Other students do reviews of regulations, markets, or other systems with the aim of making recommendations, or assessing the adequacy of current regulations or procedures. See our web site for a listing of some of the past projects.

Some student comments on the project:

*"...best part of the whole Agroecology Program"  
"...looks good on a resume"  
"...great summer employment opportunity"  
"...unique and interesting component"  
"...very beneficial to me in my related work"*

## **So you would like to know more?**

Contact the Agroecology Program Chair,  
Dr. Brian Amiro, Department of Soil Science  
Room 364 Ellis Building  
Telephone 474-9155  
Email: Brian\_Amiro@umanitoba.ca

Or the Agroecology Program Advisor,  
Dr. Neil Holliday, Department of Entomology  
Room 214A Animal Science/Entomology Building  
Telephone 474-6020  
Email: Neil\_Holliday@umanitoba.ca

Or talk to a member of the Program Committee:

Dr. Rob Currie, Department of Entomology  
218A Animal Science Building, Telephone 474-9319  
Email: Rob\_Currie@umanitoba.ca

Dr. Martin Entz, Department of Plant Science  
379 Agriculture Building, Telephone 474-6077  
Email: mentz@cc.umanitoba.ca

Dr. Gary Johnson, Department of Agricultural Economics  
379 Agriculture Building, Telephone 474-9795  
Email: Gary\_Johnson@umanitoba.ca

Dr. Kim Ominski, Department of Animal Science  
225 Animal Science Building, Telephone 474-9468.  
Email: ksignat@ms.UManitoba.CA

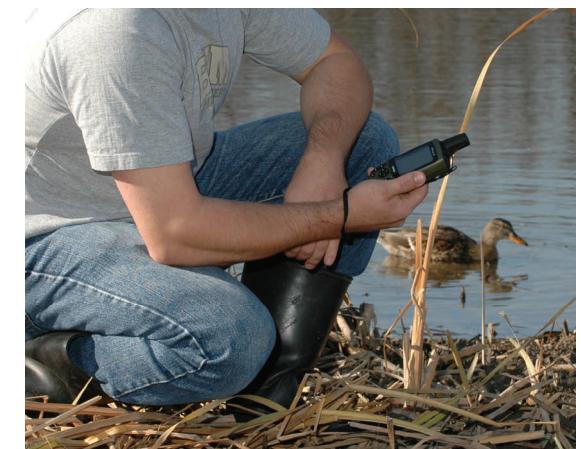
Dr. Mario Tenuta, Department of Soil Science  
307 Ellis Building, Telephone: 474-7827  
Email: tenutam@ms.umanitoba.ca



**UNIVERSITY  
OF MANITOBA**

# **B.Sc. Agroecology Program**

**[http://www.umanitoba.ca/afs/  
programs/bsc\\_agroecology.html](http://www.umanitoba.ca/afs/programs/bsc_agroecology.html)**



**Faculty of  
Agricultural and Food  
Sciences**

## **What is “Agroecology”?**

Agroecology is really the study of managed ecosystems. The discipline evolved from two needs:

1. The need to consider sustainable ecological principles in agricultural systems, and
2. The recognition that classical ecology programs often do not focus on managed ecosystems, such as those manipulated by agriculture.

## **Why should I take a degree in Agroecology instead of some other field?**

First, our students receive a four-year Bachelor of Science Degree in Agroecology. Therefore, students receive fundamental grounding in science disciplines, as they would in other Bachelor of Science programs. But the B.Sc. in Agroecology will interest students who:

- Want to study how managed ecosystems work.
- Care about the future of our environment, and recognize that we need to operate our food and material production systems in a sustainable manner.
- Have an interest in getting a well-rounded education, but would like the freedom to specialize in areas such as management of pests, livestock or land resources.
- Value the learning environment of small class sizes and the personal attention of dedicated instructors.



## **Does Agroecology appeal more to students from farm backgrounds, or can urban students enrol?**

We have students from both rural and urban environments. This creates a fantastic blend of ideas and experiences.

## **What careers are available for Agroecology graduates?**

Our graduates are prepared for a wide variety of careers in industry, government and non-government organizations (NGOs). Many of our students go on to graduate work to get a more specialized education that creates additional career opportunities. Some of our graduates are highlighted on our web page. There are actually more employment opportunities than students!

## **Do employers know what “Agroecology” means?**

Degrees in Agroecology are very common in the U.S.A. and are becoming more widely known in Canada. For example, one Canadian university has renamed their whole agriculture program as “Agroecology”, and have altered the curriculum to include more ecology! This trend to a more holistic view of managed ecosystems means that employers will be increasingly recognizing a B.Sc. in Agroecology as one of the best assets that a student can have. In addition, our students have a background that makes them eligible for professional designations, such as a Professional Agrologist.

## **Can I transfer from another program into Agroecology?**

Yes! Agroecology students often transfer from other programs. Depending on the courses that you have already taken, you may be able to do this while getting full credit for your previous courses. Talk with a student advisor about your options. Many students do not realize that Agroecology is a great area until they have completed their second year in another program.

## **Is there a co-op option in Agroecology?**

Yes, the co-op option is available in Agroecology. It consists of three 4-month work terms. Two of these can be during the summer. This option provides excellent work experience (plus pay).

## **What courses do I take?**

Although the program has flexibility, the typical program looks like:

Term 1	Term 2
Second Year	
Principles of Ecology	Population Genetics
Basic Statistics	Statistics II
Animal Production	Crop Production
Agricultural Business Mgmt.	Technical Communications
Biochemistry	Elective
Third Year	
Engineering Fundamentals	Environmental Economics
Community Ecology	Elective
Soils and Landscapes	Elective
Agroecology	Elective
Elective	Elective
Fourth Year	
Environmental Policy	Agroecology Research Project
Elective	Applied Agroecology
Elective	Elective
Elective	Elective
Elective	Elective

Electives are selected from a list of restricted electives (5 required) and free electives (8).