

Frequently Asked Questions about the Agroecology Program

What is “Agroecology”?

Agroecology is really the study of managed ecosystems involved in food production.

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:

- Are interested in new sustainable approaches to food production
- Care about the future of our environment, and recognize that agriculture needs to treat the planet better.
- 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.

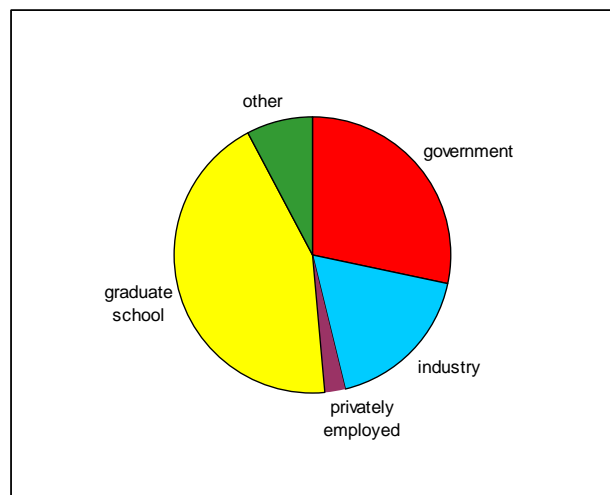
Does Agroecology appeal more to students from farm backgrounds, or can urban students enrol?

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. Here is a graph showing where our graduates have gone.

The high percentage of students going on to graduate school (Master’s degree) is partly because our students get enthused



with further education while doing their major projects in the program. After completing their Master's degree, they are very attractive candidates for jobs with government and industry. Students who do not do graduate work are still sought after by many organizations. There are actually more employment opportunities than students!

Our students become employed by diverse organizations, such as: provincial government (Agriculture, Conservation, Water Stewardship), federal government, Canadian Wheat Board, universities, Ducks Unlimited, Nature Conservancy of Canada, Conservation Authority, Manitoba Hydro, Pulse Canada, Canadian Fertilizer Institute, Organic farm manager, and consulting companies.

Do employers know what “Agroecology” means?

Degrees in Agroecology are very common in the U.S.A. and Europe, 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.

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.

How many students have graduated from this program?

Our first graduates were in 1998. Our annual graduation numbers have been:

Year	Number of Graduates
1998	3
1999	15
2000	12
2001	9
2002	8
2003	8
2004	4
2005	0
2006	5
2007	6
2008	4
2009	1

2010	2
2011	5

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). This program will extend your degree time by one semester (slightly longer if you take more work terms in winter).

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 that would give you detailed knowledge of areas such as: crop production ecology, environmental policy, insect biology, pesticides, pest management, water resources, land resource management, and livestock management. You can also design courses that contribute to a Minor. Our recent students have completed Minors in Animal Systems, Entomology and Soil Science. Our broad choice of electives makes it easy to design a program of interest to you.

What types of major projects do fourth-year students do?

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. Some past examples are:

- The ecological, agronomic and economic impacts of increased use of irrigation in Manitoba
- Sustainability of long-term straw removal
- Effect of long-term alfalfa on denitrification potential with depth
- The effects of climate change on crop production in western Canada
- Sustainability of developing a forage land base for dispersal of hog manure
- Development of a local market for bison meat
- Environmental issues facing Manitoba's dairy industry
- Forest fragmentation and biodiversity
- Long term changes in insect assemblages: a search for evidence of effects of climate change
- Composting bioremediation of diesel fuel contaminated soil
- In search of nitrogen fixing bacterial endophytes of native grass species
- Tillage practices and their impact on soil-landscape variability
- The suitability of solid hog manure for composting

- Characterization of the land cover and land cover changes of the South Tobacco Creek watershed
- Nutrients accumulate around water and mineral sources in cattle-grazed pastures
- Crop water use by hybrid poplar and alfalfa using poplar as an alternative to conventional crops
- Measuring the effects of irrigation on prairie economic growth and development for census divisions
- Nitrous oxide emissions from conventional and super urea
- Influence of site and cell size on mould and parasite induced mortality in feral leaf cutting bees

Who do I contact for more information?

For information on the program or to discuss if Agroecology is right for you, contact the Program Co-Chairs:

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