

## Profiles of Some Graduates of the University of Manitoba B.Sc. Agroecology program

**Sheila (graduated 2008):**



I graduated from the Agroecology program in 2008 with a minor in Soils. Prior to that, I received a B.Sc. General, also from the University of Manitoba in 2006. I stumbled across the Agroecology program when looking for courses to complete my general science degree and thought it would be a great way to combine my interests in science and the environment in a practical way.

Since graduating in 2008, I have been working as a Soil Survey Specialist with Manitoba Agriculture, Food and Rural Initiatives. Our main focus is collecting soil profile and landscape data which we use to create soil maps, reports and interpretive maps. The information is used to understand the land base; its capabilities and limitations. This information is used in precision agriculture, agri-environmental programming, land use planning, and manure and nutrient management.

Many people will tell you that they do not use what they learned in school in their jobs – this has certainly not been my experience! The soils courses that I took provided me with the background information on soil physical and chemical properties and soil development and classification that I use to understand and describe soils every day. The variety of courses that are included in the Agroecology program allowed me to understand the larger picture of how soils, water, agriculture and the environment interact. They also allowed me to understand where soil survey is used and the implications that my mapping decisions have on agriculture in Manitoba.

## Laura, (graduated 2008)



Farmyard Runoff Control project - site visit

### Currently employed as: Landscape Stewardship Specialist Manitoba Agriculture Food & Rural Initiatives

In 2008 I graduated with my B.Sc. in Agroecology with a minor in Entomology. Up until the 3rd year of my undergraduate degree, I was set on continuing with my education past the B.Sc. level. During my third year, I made the decision not to carry on with a M.Sc. and instead entered directly into the workforce. I have not regretted this decision.

Continuing to farm with my family was a priority for me and at the time of my graduation, a new home and wedding were in the very near future. I knew that the decision to return home could limit the choice of potential ‘external’ (off-farm) job opportunities, however the farm was the place for me. Coming from a forage seed and pollination farm in Manitoba’s Interlake, I had a strong background in the forage seed industry and I was extremely fortunate in landing the position of Research Manager with the Manitoba Forage Seed Association based approximately 30 minutes from home at the local Manitoba Agriculture, Food and Rural Initiatives (MAFRI) office. There, I focused on production research, communicating the results of the research within the industry and representing the industry at provincial and national scales.

In 2010, I moved to a position with MAFRI as a Landscape Stewardship Specialist with the Agri-Environment Knowledge Centre. In this position, I focus on helping producers increase their environmental sustainability and stewardship while remaining profitable. I often help producers via on-farm consultations, in the development of on-farm projects and emphasize a ‘whole farm approach’ to environmental sustainability. I am the lead for two of the eligible Beneficial Management Practices under the Environment Suite of *Growing Forward* programs – Relocation of Livestock Confinement Facilities and Farmyard Runoff Control. I am also involved in consultations with local Conservation Districts, as well as several watershed research initiatives examining novel water management strategies, mainly in the Interlake area. Along with all of this, my husband and I continue to farm with my parents and brother, and are in the process of expanding our own land-base and beginning succession of my parents’ farm.

Some of the reasons the Agroecology program has been essential in preparing me for my career are:

- The large variety of courses on basic agriculture production and agronomics were absolutely essential in allowing me to fully understand the ‘workings’ of the practice of agriculture and aid me not only in my day-to-day work with MAFRI but also at home on my own farm.
- The ecological focus of the Agroecology-specific courses helped me to better understand the complicated agro-environmental system that we work in, and has allowed me to better understand the interactions between the relevant biological systems that determine our success or failure in agriculture production.
- The research techniques and tools that I developed during the preparation, execution and delivery of my undergraduate thesis were key to the success of my first position as Research Manager and are highly useful and transferrable skills that I still use today.
- The network of professors and students that I developed relationships with throughout the course of the Agroecology program has been invaluable. Many of us have stayed connected over the years and I continue to work with several of my old classmates and often collaborate with past professors and instructors.

**Bryan (graduated 2007):**



Controlled Burn on Native Grasses

I graduated from the Agroecology program in May 2007. From there I went directly into agriculture retail and worked for Terraco in Elie Manitoba as an agronomist. There I did field scouting, soil sampling and working with fertilizer and chemical. In September 2007, I decided to find something a little closer to home. I got a job working for Paterson Grain in Gunton Manitoba as an assistant manager/agronomist. This position included all the similar duties as Terraco, along with managerial responsibilities for sales and staff. After two and a half years working for Paterson Grain, I obtained my current position as a Conservation Programs Specialist for Native Plant Solutions (NPS). NPS is a division of Ducks Unlimited Canada. At NPS we work as a team to install wetlands and native grasses as a service to our clients. My job's main focus is on leading on projects from start to finish, including; soil preparation, erosion control, weed control, seeding and management. During winter months I am in the office 70% of the time and 30% outdoors. During summer the office work is down to about 10% of my time.

The Agroecology program gave me the background I needed to start my career. I had the skills needed in soils and agronomy that gave me the opportunity to work in the agriculture field. I also gained the skills to write large papers and reports from the Agroecology research project. Those are skills that I use often at my current position. My position now requires knowledge in soils, ecology, biology, agronomy and the environment which are all things I learnt through courses provided by the Agroecology program. The program also looks great on a resume. My current employer requested to see my paper from my research project prior to hiring which helped obtain the position.

**Stuart (graduated 2001):**



I entered the agroecology programme hoping it would teach me about, and be focussed on, ecological or green agriculture. Initially I was disappointed by the limited focus on sustainable agriculture. I later recognized the real strength was providing a sound understanding of the science of ecology as it relates to agriculture. I also found it provided me the best possible knowledge for working in sustainable agriculture. This knowledge was transferrable anywhere in the globe and to different industries. My agroecology degree has taken me from working for the United Nations in the South Pacific, doing agricultural research in Sweden, and working in the agriculture industry in the Maritimes and the Prairies of Canada. I have worked with the Canadian Wheat Board since 2007. In my role as a Weather and Crop Analyst the skills learnt during my Agroecology degree have daily application. I need to understand the complex intersects of meteorology, plant physiology, crop management and agricultural policy. I also have been highly involved in the certified organic sector where I actively work as an organic inspector and sit on a number of boards. In this area too my education has provided an ideal starting place to build further knowledge.

Like many Agroecology graduates, I eventually chose to pursue a second degree. I think the inclusion of an undergraduate thesis in Agroecology better prepared B.Sc. graduates to pursue M.Sc. or Ph.D. level education. Having completed an undergraduate thesis, the second more involved thesis is not nearly as daunting. One has acquired practical skills, developed strong writing styles, and built networks of contacts.

While I can understand the attraction of a highly specific agricultural degree, I feel the strength of the Agroecology program is the breadth of topics studied. This allows flexibility in adapting to changing job markets. It gives a person the ability to have a sound base from which they can go deeper into a topic when they need to for whatever reason.

**Kristian (graduated 2000)**

Currently employed as:  
Senior Manager, Technical Affairs  
Canadian Fertilizer Institute (CFI), Ottawa

I graduated from the Agroecology program in May 2000. I then completed my Master's degree in Soil Science at the University of Manitoba in 2003.

Afterwards I moved to Alberta where I worked for both the provincial and a municipal government in agricultural extension positions. My positions mostly entailed working with farmers for them to adopt beneficial management practices in the areas of nutrient, crop, and pasture management.



Kristian presenting about the fertilizer industry in the Parliament Hill.  
Photo credit: A. Davis

Then I moved back to Manitoba where I was producing livestock nutrient management plans for a private agricultural company. I then became an Environment Officer with Manitoba Conservation in which I focused on the day to day administration and enforcement of submitted livestock nutrient management plans.

In my current position with the CFI, I work on various projects including the fertilizer industry's Codes of Practice for anhydrous ammonia and ammonium nitrate, and on extending nutrient stewardship information. I also regularly meet with various federal and provincial government officials.

Two aspects of the Agroecology program have assisted me greatly with my career. First was my undergraduate thesis project in which I measured greenhouse gases from land-applied livestock manure. From this, I had gained some practical research and technical experience. This program also helped me during my Master's degree. The second aspect was the variety of courses that I completed. While I focused on soil science courses with my free electives, I took courses in other aspects of agriculture and in environmental sciences. This gave me much needed background material on a variety of important subjects. In addition, these courses helped develop my teamwork, project management, and communication skills.