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# WHAT IS AGROECOLOGY?

The academic field that bridges agriculture, nature and society.

Agroecology links theory and practice using social and natural sciences to describe, analyze and manage complex agroecosystems. We focus on integrating ecology, organic and conventional agriculture, socio-economics and culture with the ultimate goal of sustaining production, food security, community and environmental health.

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# Summary of a forthecoming Agroecology pedagogy article: "Educational Learning Ladder Leads to Action"

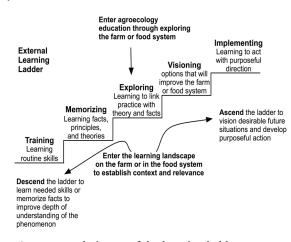
Your instructors in the Agroecology courses are continually searching for ways to understand and communicate about the unique learning opportunities that are offered in the autumn courses at UMB in Norway. We will be publishing a paper describing the classroom experience of climbing a "learning ladder" that leads to responsible action in the farming and food systems sector. The following is an abstract and summary.

The Nordic Agroecology MSc program educates professionals to deal with complex challenges facing agriculture and food systems today and in the future. We strive for understanding multifunctionality, complexity, and uncertainty of performance of agroecosystems. Cognitive processes are seen as steps in an external learning ladder, where we break from the classical concept of always starting at the bottom rung for a oneway climb toward more advanced learning. Our students start in the middle, exploring real-life cases on farms and in food systems, and move up and down the ladder. They step down to train in routine skills and memorize factual and theoretical knowledge needed to deal with the real-life challenges, or step up for visioning and implementing improvements. We envision a corresponding ladder that describes internal, personal reflection on the course activities. This requires emotional involvement, clarification of ethics and personal values, and reflection on experiences. While the external ladder goes upwards toward more complex cognitive processes, the internal ladder goes downwards for a deepening of individual reflection as a practicing,

assimilating, connecting, creating, and acting person. The focus on the agroecosystem phenomenon as experienced and linked to theory is balanced by the process of becoming an agroecologist. The dual learning ladder enables students to improve their understanding of agriculture and the wider food system and to practice reflection as basis for personal growth.

As faculty we are continually energized by students who come in each year with fresh ideas, an attitude that something can be done to design and improve the future, and an unlimited supply of questions about how systems work and how we can develop indicators to measure their changes.

The paper by Geir Lieblein, Tor Arvid Breland, Edvin Østergaard, Lennart Salomonsson, and Charles Francis will appear later this year in the NACTA Journal (National Association of College Teachers of Agriculture) in the U.S. Watch for its publication.



A conceptual picture of the learning ladder.

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# STUDENT PROFILE: MARIE-LOUISE RISGAARD

Having new eyes: reflecting on the Agroecology education

I took the Agroecology course at UMB in 2001. When I look back, I know I had a lot of small but essential epiphanies – I certainly learned to look at things with "new eyes". But it wasn't until recently that I realised the actual influence of this particular course on my life. In autumn 2006, I was contacted by a potential Agroecology student who asked for information about the course. Running on a tight time schedule I decided to send him the short version of the final reflection assignment I did at UMB. When I reread it I was completely stunned. "Seeing possibilities, asking 'how can we..?' instead of 'can we...?', focusing on the human part of the food system, seeing and acknowledging the larger perspective" - all of this I was taught at UMB and it has no doubt since then become an integrated part of my life. The "eye opening" I owe to the committed people at the Agroecology course; the part of keeping me on track and nursing the inspiration and vision I owe to my supervisor, Vibeke Langer at KVL, from whom I have learned even more since I came back from the Agroecology course! Through a close working relationship with Vibeke and two senior researchers from The National Environmental Research Institute, Pia Frederiksen and Pernille Kaltoft, I was introduced to interdisciplinary work at its best and was provided with the possibility of setting up the initial network needed for a career within research.



Marie-Louise Risgaard works for the Danish Institute of Rural Research and Development at the University of Southern Denmark as the coordinator of a local network of producers called Vadehavsprodukter. Her job entails creating links between the network of producers, the gastronomic sector and the tourist sector.

I did my thesis on human interactions in the organic food and farming system. The two main questions were: What are the socio-cultural processes behind the differential distribution of organic farming in Denmark and why do organic farmers revert to conventional farming?

One case study in southern Jutland in Denmark focused on explanations for reversion among organic farmers. Research highlighted that the problems of marketing and lack of expansion possibilities for dairy producers were important. To a lesser degree the length of contract period, bureaucracy, problems with weeds, and original drivers of organic farming contributed to reversion. Most farmers did not perceive a large difference between organic and conventional farming nor did they relate their way of production with anything else in their daily life (for example organic consumption, meetings or a social network). However, none of the reverters wished to start using pesticides again and most of them considered organic farming to be a rewarding and professional challenge.

The other study focused on two neighbouring areas in northwest Jutland with high and low densities of organic farming, respectively. It was found that the social environment at the time of conversion played a strong role in determining whether local diffusion would take place or not. Secondly, converters with similar or cooperating production types versus converters of differing or even niche production types induced different diffusion processes. Neighbour effect was thus not only dependent on the physical distance between the farms, but even more importantly on the kind of production method employed. Also it seemed that the decision process was prolonged when farmers did not receive advice and thus had to be their own knowledge agents. Finally, high land prices might have acted as a restriction to conversion and/or expansion of organic farms.