

Graduate Module

Title: Agroecology

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Timing: Winter (April/May) 2016

Description:

Agroecology has been promoted as a framework to help redress the negative impact of farming on biodiversity, and/or to enhance beneficial organisms on farm (Altieri and Nichols, 2000; Wezel et al. 2009). In some jurisdictions the concept has provided the basis of policy and support programs for producers, although the efficacy of such programs is debated. Is the goal enhanced biodiversity or ecosystem services and what is the linkage between these?. For soil biota the influence of management practices may be transient, or small in response to inherent edaphic factors and soil resilience (Lynch, 2015). The module will provide an opportunity to examine these considerations. Particular emphasis will be placed on discussion of the relative influence of farming system versus cropping practice, and farm habitat and landscape composition, on soil biota and on pollinators.

Format: Lecture, 2.5 hours/week for 4 weeks. Each student will be expected to participate with questions and comments related to lectures and distributed readings. The presentation will include material from the major essay written by each student.

Method of Evaluation:

1) Essay	40%
2) Presentation of paper	20%
3) Participation in discussions	40%

References

- Altieri, M., & Nicholls, C. 2005. Agroecology and the search for a truly sustainable agriculture. 1st Edition. Berkeley, CA, University of California.
- Lynch, D.H. 2015. Nutrient cycling and soil health in organic cropping systems - importance of management strategies and soil resilience. Sustainable Agriculture Research. 4:76-84
- Wezel, A., et al. 2009. Agroecology as a science, a movement and a practice. A review. Agron. Sustain. Dev.