

Agroecology Education and Research: an Academic Platform for Organic Farming

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Continuing Struggle for Legitimacy

- Organic farming still seen as counter culture by many in academia
- OF is perceived as low input and low output farming that will not feed the world
- Many consider OF as anti-science and anti-progress in spite of credible literature in organic farming
- Non use of chemical fertilizers and pesticides and GMOs seen as non-scientific
- Including values in decisions is perceived by some as outside of objective science



Organic Farming Methods and Goals Are Needed in the Mainstream

- Agricultural and food systems must produce safe, nutritious food products
- Economies of scale are important to producing food at a reasonable price
- Market forces determine most decisions, but should not compromise food quality
- Consumers should know and care about where and how food is produced; one of our tasks is education
- Most producers as well as processors and retailers seek larger volume and expanded business opportunities, but these should be done within the context of local systems



Issues that Organic Farming Courses Can Bring to University Education



- Multiple goals of production and economics, social and environmental impacts are important
- Ethics and values are among the criteria guiding farming decisions: enterprises, methods, overall systems
- Industrial organic systems challenge these values, and there is discussion needed on local versus global food systems and their long-term implications

Agroecology: an Evolving Definition

- Combination or *marriage* of ecology and agriculture
- Scope is beyond production and short-term economics
- Foundation includes many principles from organic farming
- Agroecology defined as *the ecology of food systems*



Useful Definitions

- **Organic Farming:**
a certified method of producing crops and animals that will lead to sustainability of production, environmental stability, and food security
- **Organic Food Systems:**
certified production and sales systems that are governed by recognized and accepted rules at the national and international levels
- **Agroecology:**
an academic discipline and umbrella over organic farming and other approaches to sustainable agriculture and food systems, or ...
the ecology of food systems

Advantages of Agroecology Focus



- Students and learning are the focus, and these goals direct the research program
- Agroecology focus avoids unproductive confrontation with mainstream opponents of organic farming
- Emphasis on ecology, environmental, and social impacts of systems provides greater opportunities to influence the mainstream of agriculture and food systems

Agroecology MSc in Nordic Region

- Autumn term, first year
 - Agroecology and Farming Systems*, 15 ECTS
 - Agroecology and Food Systems*, 15 ECTS
- Spring term, first year
 - courses at UMB, SLU, Wageningen, Wales, KVL, ESA, ISARA, Viterbo, Torino, 30 ECTS
- Autumn term, second year
 - courses at UMB, SLU, Wageningen, Wales, KVL, ESA, ISARA, Viterbo, Torino, 30 ECTS
- Spring term, second year, 30 ECTS

Future Research Priorities & Topics

- Resource/efficient methods of maintaining soil fertility
- Pest management in organic crop/animal systems
- Local food systems and resource cycling
- Future of agriculture without subsidised fossil fuels
- Preserving habitat and biodiversity in rural landscapes



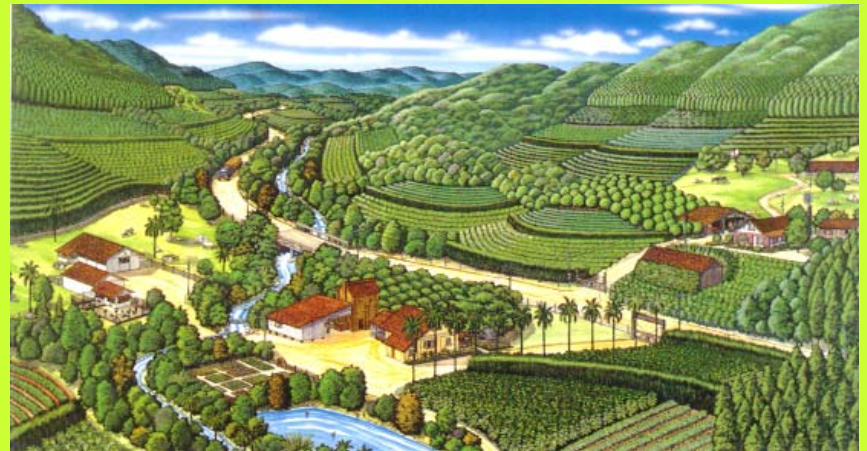
Future Research Priorities & Topics

- Agricultural viability after national and regional subsidies
- Enhancing ecosystem services in rural landscapes
- Ecological economics as a guiding principle for systems
- Equity of resource use and benefits from food systems
- Impact of global trade and treaties on agriculture
- Future contributions of universities to food security



Advantages of the Agroecology Umbrella

- Academic platform for resource efficient, stable, and socially viable food systems
- Acceptable academic forum for discussing organic farming and other resource efficient alternatives
- Organic farming courses enriched by agroecology systems approach, other courses also use organics
- Focus on experiential learning, practical problem solving, and an active learning university will attract new students



Questions and Discussion

