

# AGROECOLOGY

NEWSLETTER MAY 2009 VOL. 4 NO. 5

MASTER'S OF SCIENCE (UMB)

## WHAT IS AGROECOLOGY?

*The academic field that bridges agriculture, nature and society.*

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

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For many, the month of May is the time when courses are winding down and it is time for exams. The 15th is also the deadline for the Master degree, and so to all those who have submitted their theses, we would like to congratulate you on your efforts. In the summer months, the newsletter will feature some of the abstracts, reflections and future plans of these graduates. The Food 2009 Anniversary conference is also being held in May in honor of the 150th anniversary of UMB. The program for the conference can be found on the final page of this issue and highlights from the day will be featured next month. The May issue also showcases Wes Jackson, a scientist working on innovative, locally adapted agroecosystems. In addition, Charles Francis provides suggestions for relevant agroecological readings that can be used to prepare for the course, provide thesis inspiration and give greater insight into farming and food system issues.

## AGROECOLOGIST PROFILE: WES JACKSON

By Chuck Francis

How is it possible to design a 100 year research mission to create a sustainable, food-producing agroecosystem in the Great Plains of the U.S.? This formidable task was launched over 30 years ago through the vision of Dr. Wes Jackson and colleagues when they founded The Land Institute near the central Kansas city of Salina. The vision was to research and establish a perennial polyculture based on the principles, structure, and function of the native prairie that once occupied this vast continental region. In total opposition to the prevailing agricultural systems of rainfed wheat and irrigated maize and grain sorghum, this system was designed to run on sunlight rather than fossil fuels, utilizing native soil fertility. It would be sustained by a rich diversity of seed- and forage-producing plants, pest protection through biodiversity, and moisture from rain and snow. Two strategies have been followed to discover the plant cultivars needed for this system. One is to select for greater harvestable and edible grain production from native plants, among them sunflower, Illinois bundleflower, and wild rye. The second is to breed perennial versions of current annual cereals such as winter wheat and grain sorghum. So far there has been great progress in both these priority areas, and The Land Institute is currently looking at advanced generations of selected cultivars as well as studying the resilience of mixtures under the ambient climatic conditions of the prairie. A cytogeneticist by training, Dr. Jackson was co-founder of the Institute and continues as its president and chief fundraiser. For more information, consult their website:

[www.landinstitute.org](http://www.landinstitute.org)



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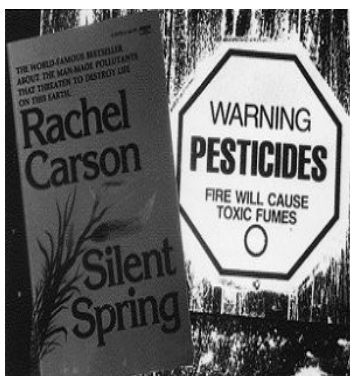
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## READINGS RELATED TO AGROECOLOGY



By Chuck Francis

In addition to the specific recommended readings in the Agroecology courses at UMB, students have asked about more general resources that would be useful in developing a broad appreciation of discovery learning. Here are some of my favorites that have been used on occasion in classes at the University of Nebraska-Lincoln.

Ishmael, by Daniel Quinn, is a superficially whimsical but deep book about Socratic learning and saving the world; a related follow-up book is My Ishmael, and one more related to religion is The Story of B, both by Quinn.

Guns, Germs and Steel by Jared Diamond, as well as his later book Collapse provide a good overview of the reasons why things have played out differently in different countries, and what we can learn from history.

Herland is by Charlotte Perkins Gilman, an early feminist who wrote this novel back around 1910. In it, she discusses permaculture, agroecology, water quality and the carrying capacity of the planet. She was an early ecologist who saw the big picture, writing a compelling novel that speaks to men's and women's roles as well. Another book I have used at times in agroecology is Woman on the Edge of Time by Marge Piercy, a novel that provides two contrasting future projections that differ greatly in technologies and impacts on people.

Silent Spring (Rachel Carson) and A Sand County Almanac (Aldo Leopold) can be read and re-read to glean new gems of wisdom; at least that happens to me every time. Any of the books by Wendell Berry, Wes Jackson or David Orr are also contemporary critiques of current science, agriculture, and educational systems, and I value their insights.

Michael Pollan has written a number of recent articles and books: Omnivore's Dilemma is one of the most popular, but also "Unhappy Meals" in the New York Times review and a recent one that gives recommendations for a White House farmer. He puts a more sophisticated face on popular books such as Fast Food Nation and Super-Size Me, both of which are now movies that you can easily access.

The Farm as Natural Habitat: Reconnecting Food Systems with Ecosystems (Dana Jackson and Laura Jackson, editors) is a good collection of authors and thoughtful assessment of the emerging awareness of biodiversity and how this can coexist with farming. Economist John Ikerd has several recent books that critique the current U.S. farming paradigm and offer exciting alternatives; one of these is Crisis and Opportunity from our Nebraska Press series, and another is A Return to Common Sense.

In the Norway courses, you have plenty of Steve Gliessman, Miguel Altieri, Richard Bawden, and our materials from the Nordic Region, but the above books would be a way to broaden knowledge and develop a healthy respect for systems, big issues, and the complexity of learning.

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## FOOD 2009: THE ANNIVERSARY CONFERENCE

In honor of the 150<sup>th</sup> anniversary of the Norwegian University of Life Sciences (UMB), a conference on food is being held on the 28<sup>th</sup> of May, 2009. The program includes both Norwegian and international speakers addressing food from a wide range of social and natural science perspectives. Look for next month's newsletter for a more detailed story about the conference.

The contents of the day are shown below:

**10:00 Welcome – 150 years with food in focus!**

Knut Hove, Professor and Rector, Norwegian University of Life Sciences (UMB)

**10:10 Teaching award 2009**

**10:20 Food and food security– A global perspective**

Hilde Frafjord Johnson, Deputy Executive Director, UNICEF

**10:50 Food, environment and climate change– How to ensure sustainable development**

Arild Vatn, Professor, Noragric, UMB

**11:10 Fishfarming– A blue revolution?**

Atle Guttormsen, Professor, Department of Economics and Resource Management, UMB

**11:30 "Techno-food" - A simple solution?**

Tor Lea, Professor, Department of Chemistry, Biotechnology and Food Sciences, UMB

**11:55 Flight recorder for food**

Brit Salbu, Professor, Department of Plant and Environmental Science, UMB

**12:00 Lunch**

**13:00 The food industry– welfare developer in bad weather?**

Roald Gulbrandsen, Director of Trade Policy, NHO Food and Drink

**13:20 Food, physiology and psychology: What governs what we eat?**

Magni Martens, Senior Researcher, Nofima Mat and Professor, University of Copenhagen

**13:40 Norway– a fatter society: nutrition policy and challenges for the food scientist!**

Birger Svihus, Professor, Department of Animal and Aquacultural Sciences, UMB

**14:00 Coffee**

**14:15 Stuffed and starved: Why the global food system is failing and what can be done about it**

Dr. Raj Patel, University of KwaZuluNatal and University of California at Berkeley

**15:00 Comments and panel discussion:**

Lars Sponheim, MP and Leader, Liberal Party of Norway

Hilde Frafjord Johnson, Deputy Executive Director, UNICEF

Raj Patel, University of KwaZuluNatal and University of California at Berkeley

Birger Svihus, UMB

Atle Guttormsen, UMB

Brit Salbu, UMB

Panel chair: Eva Bratholm



**PROGRAMME**  
 THE ANNIVERSARY CONFERENCE  
 FOOD 2009  
 ÅS, 28 MAY

[www.umb.no/mat2009](http://www.umb.no/mat2009)