


---

# CHN at Work:

## Bringing Perspective to the Biofuels Debate

CURT MEINE

uring the growing season of 2006, large financial and political forces lined up in a manner that made it plain, to promoters and critics alike, that corn-based ethanol was becoming a transformative force in the agricultural landscapes of North America.

A juggernaut was beginning to move—with few ethical “rules of the road” to guide it, and all too little appreciation of the need for such rules. The debate over ethanol and its discontents has

evolved so quickly that it is difficult now to recall the feverish headlines of 2006: “Ethanol’s Promise Isn’t False” (Washington Post)... “New Fuel Source Grows on the Prairie: With Oil Prices Up, Biomass Looks More Feasible” (Washington Post)... “The Energy Challenge: Ethanol Bonanza Is Reshaping Sleepy Cow Towns in Heartland” (New York Times)... “The Great Corn Rush” (Minneapolis Star-Tribune)... “Midwest Farmers Reap Benefits of Ethanol Boom” (USA Today).

During the last two years, CHN has organized or participated in a series of critical discussions that have both deepened and broadened our understanding of the perils and promise of biofuels development—even as the speculative bubble in corn-based ethanol production in the United States has been punctured by economic, environmental, and technical realities.

In October 2006 I was invited to speak in a lecture series jointly organized by the University of Wisconsin-Madison’s Agroecology Program and College of Engineering. The title of the series was “What Would Aldo Leopold Think About Corn Ethanol?” Others in the series had addressed issues of corn ethanol production from the perspectives of physics and energetics, the potential social and economic benefits, and the environmental impacts (especially on soil and water conservation and air quality). In my presentation, “Ethics, Economics, Ecology, Engineering, Ethanol, and... Aldo,” I argued that it is always risky to presume what Aldo Leopold might have thought about any given issue involving natural resources, conservation,

economics, and the public good.

However, Leopold’s own life and work—especially his commitment to conservation in the agricultural landscapes of the Midwest—provide ample evidence of how he would have thought about corn ethanol (and biofuels in general). He would have required us to think about these issues in a manner commensurate with their complexity. He would have had us regard land not as a mere source of this latest commodity, but “as a community to which we belong.” He would have us think hard about the ways in which our actions affect the health of the land. He would push us to cross artificial disciplinary boundaries in the field, the laboratory, the classroom, and the policy arena. He would have demanded rigorous research and monitoring of results. He would have had us look not only at the means of energy production, but the realities of energy consumption. He would have insisted that this question, like all resource management questions, inherently involved ethical consideration of the common good, of future generations, of other species, and of the land as an integrated whole.

Yet, it had to be admitted that in the heat of the ethanol boom this land ethic perspective was all but absent in the statements emanating from the policy salons, the partisan think tanks, and the corporate publicity mills.

That was soon to change. Countervailing headlines soon began to grace newspaper pages and internet blogs: “Will the End of Oil be the End of Food?”; “An End Run on Ethanol”; “Most of Nebraska Corn Crop Will Go to Ethanol by 2011: Some Wonder If It’s Worth It.”

Recognizing the need for deeper, more critical discussion of the issue, the CHN in November 2006 convened a meeting in Chicago entitled “Biofuels: Creating a Humans and Nature Perspective.” The meeting brought together representatives from several universities and NGOs to share background information and compare positions. Wes Jackson and Wendell Berry contributed their deep agroecological perspectives. (Berry’s comments at the meeting would appear in Harper’s magazine as “Faustian Economics: Hell Hath No Limits,” May 2008.)

In the meantime, scientific discussion of the complex trade-offs, risks, and externalities involved in ethanol production, and of alternative ways of thinking about biofuels generally, was beginning to filter through the professional and public media. A key transition point came in early December 2006 with publication in the journal *Science* of an article by David Tilman and colleagues at the University of Minnesota, “Carbon-Negative Biofuels from Low-Input High-Diversity Grassland Biomass.” Their study pointed to the potential to derive broader environmental benefits through biofuels that utilized native grassland perennials as feedstock (vs. corn-based ethanol or soy-based biodiesel).

The article was a portent of things rapidly to come. In the months that followed, a series of scientific, economic, and policy papers called into question any simple conclusion that large-scale corn ethanol production provided net gains in environmental quality, energy efficiency and reduced greenhouse gas emissions, and raised troubling

grassland biodiversity. The ethanol boom has put pressure on policy makers to remove lands enrolled in CRP and to put them back into production.

In September 2007, as part of its Biosphere Ethics Project, CHN hosted an international meeting that involved colleagues from the World Conservation Union (IUCN). Among the attendees was Jeff McNeely, IUCN Chief Scientist, who also serves on the Steering Board of the Roundtable on Sustainable Biofuels, an international initiative organized by the École Polytechnique Fédérale de Lausanne in Switzerland to establish standards for sustainable biofuel production. McNeely agreed to participate in a symposium that I and several colleagues had begun to plan on biofuels and biodiversity conservation for the July 2008 annual meeting of the Society for Conservation Biology (SCB) in Chattanooga, Tennessee. That symposium, “Biofuels and Biodiversity: An Assessment of Potential Effects on Species and Ecosystems,” was among the best attended at the SCB meeting, and featured research reports and policy proposals involving the intertwined topics of biodiversity conservation and biofuels development.

Sadly, as the SCB meeting in Tennessee was taking place, I learned of the loss of my friend Strachan Donnelly. I like to think that the SCB symposium served, in its own way, as a tribute and memorial to Strachan. It exemplified the interdisciplinary inquiry that he so greatly appreciated. It connected science and ethics, philosophical concepts and pragmatic realities, local concerns and global

The policy debate about biofuels goes on, but corn ethanol is not the juggernaut it once seemed destined to be.

questions involving the impacts on food security, land conservation, water quality, and other matters that had too often been regarded as “side issues” (if at all).

The Center’s involvement in the biofuels debate continued in May 2007, when the Center partnered with the Chicago Botanical Garden to present a public symposium, “Biofuels: Distilling Fact from Friction.” The symposium provided an opportunity to elaborate on themes from the previous fall’s meeting, and to share them with a larger audience of interested citizens and organizations. The following day, a smaller follow-up meeting was convened at the Center’s conference facility, “Windblown Hill” in Libertyville, IL to consider the impact of the rapid development of the U.S. biofuels industry on the federal government’s Conservation Reserve Program (CRP). This program encourages farmers to keep some land out of agricultural production, thereby protecting marginal soils and encouraging

trends. It reached an audience that has continued to expand as the attendees have dispersed again to their classrooms, study sites, policy offices, and home landscapes. It was a productive example of what Strachan referred to as “orchestral causation,” the complex conjunction of many forces and influences that have effects one cannot always anticipate.

The policy debate about biofuels goes on, but corn ethanol is not the juggernaut it once seemed destined to be. As one thing leads to another, it is sometimes easy to overlook the role that CHN plays in catalyzing thought in circles far from our own—and in providing a place to make fortuitous connections.



*Curt Meine, Ph.D. is Director for Conservation Biology and History at the Center for Humans and Nature*