

# Get Ready for the Gas Rush

Sue Smith-Heavenrich

*This is the first of a series of articles that will discuss the agricultural and environmental impacts of gas drilling.*

We may not have gold in “them thar hills,” but we do have natural gas. The first gas well in the state of New York was dug by hand, with a shovel, in 1821 in Fredonia. Since then, many farmers in the Appalachian region have had shallow wells drilled on their property to extract gas from underlying formations.

Within the past five years, energy companies have been drilling deep wells into the Trenton-Black River formation, nearly 10,000 feet down. Closer to the surface—about a mile down—are the Utica and Marcellus shales, black carbonaceous rock rich in hydrocarbons.

It is those black shales that have caught the interest of energy companies. Last January Terry Engelder, professor of geosciences at Penn State, and Gary Lash, professor of geosciences at SUNY Fredonia, touched off a “gas rush” when they published their estimates of large reserves of natural gas trapped in the Marcellus shale. A couple of months ago, these experts revised their estimates upwards to 363 trillion cubic feet of gas. That’s seven times their original calculation: enough to meet the entire nation’s gas needs for 14 years.

The Marcellus shale formation may be the largest in the U.S., extending from the southern tier of New York to West Virginia. In New York the Marcellus shale lies beneath fields, forests, and towns in 27 of the state’s 62 counties. During the summer of 2008, energy companies courted many landowners in these counties, offering hundreds—then thousands—of dollars per acre for the right to drill.

The gas rush slowed when Governor David Paterson directed the state Department of Environmental Conservation (DEC) to study potential environmental impacts of drilling in the Marcellus—but expect companies to flood back into the area once the DEC



*Photo by Sue Smith-Heavenrich*

finishes its study this summer. Especially since last month, Gary Lash significantly revised his estimate of gas reserves yet again. Based on work done with Dallas-based Chief Oil & Gas LLC, Lash now believes the Marcellus may hold 1,300 trillion cubic feet of natural gas. In November 2008 one energy company, Chesapeake Energy Corporation, told investors and analysts that each square mile in the Marcellus could contain 30 to 150 billion cubic feet of gas.

What does this mean for us? As upstate geologist Don Zaengle put it, “The economic promise from this region will place a lot of pressure on landowners to lease their land to energy companies.”

Natural gas is touted as the “greenest” fuel around, but the process for drilling and extracting gas has a tremendous impact on our environment, communities, and infrastructure. Drilling in the Marcellus will require enormous quantities of water, and many toxic chemicals will be injected into wells to aid in fracturing the rock. Drilling pads require 5 acres, and pipeline rights-of-way will cut through fields, pastures, and forests. Heavy trucks will make hundreds of trips to haul water to the wells and haul wastewater out, putting a tremendous strain on community infrastructure.

Apart from the impact on individual properties, drilling for gas will have an impact on the region’s farms, forests, and water supply—indeed, on our entire food system. In upcoming articles, I will address different aspects of drilling, with attention to how it impacts organic agriculture.

Reprinted from the quarterly newsletter of the Northeast Organic Farming Association of New York, Inc. (NOFA-NY), an organization dedicated to the creation of a sustainable regional food system which is ecologically sound and economically viable. NOFA-NY can be contacted at: 607-652-NOFA or on the web at [www.nofany.org](http://www.nofany.org). For permission to reproduce more copies contact NOFA-NY. Please include this message in any reprints.