

Rural Impacts: How Shale Gas Drilling Affects Farmers

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On the morning of April 20, the anniversary of the BP blowout and just two days before Earth Day, farmers and residents near Canton, in Bradford County, PA awoke to a blowout of their own.

A few minutes before midnight, during the fracking process, Chesapeake Energy's Atgas 2H well blew out. Unlike the blowout in Clearfield County last June, the Chesapeake well did not shoot a fountain of gas and water thousands of feet into the air.

It did, however, send thousands of gallons of fracking chemicals and brine spilling across a farmer's field and into Towanda Creek, which feeds into the Susquehanna River. One eyewitness reported that the farmer's cow was within 100 feet of Towanda Creek.

Workers responding to the spill quickly erected a barbed wire fence to keep the cows out of the creek and the pooling frack fluid. But the precautions may have been too late – cows had access to both water sources for hours before the spill was reported.

Despite reports of wealth and the push by landowner's groups for higher royalties, intensive industrialized drilling in Pennsylvania has affected farmers. Recently two dairy farmers living in Bradford County shared insights into the rural impacts of drilling. Carol French and Carolyn Knapp are dairy farmers. Though their farming techniques differ – Knapp is certified organic and French farms conventionally – both share one thing: their farms are ringed by gas wells.

“There are seven wells drilled within a mile radius of my farm,” said French, “People are complaining of contaminated water.” Leases, they say, do not protect farmland. Once signed, farmers find that they lose control over their land. The companies decide where to place access roads, well pads, pipelines and compressors, says Knapp.

“Farmers think they are going to get rich,” said French. Some do, she said, noting one farmer with 8 producing wells on his 500 acres receives close to \$90,000/month in royalty checks. But his neighbors have yet to be paid for the well pads Chesapeake built on their farms.

Drilling interrupts farming activities. French described one situation in which drillers sited a well behind a farmer's barn. It cut off his access to fields and he ended up selling his cows. He's earning royalties – about \$400/month, French said – but the drilling polluted the groundwater so now they have to rely on bottled water for drinking.

“We are told we can co-exist,” Knapp added. As an organic farmer she integrates intensive grazing into her dairy operation. “A driller showed us where he wants to put a 20-acre water impoundment – right in the middle of my rotational grazing system!”

Then there are the unanticipated impacts. Drillers mix sawdust into their cuttings before trucking them to a landfill. “That means there's no sawdust for bedding,” French said. She currently grinds feed to provide bedding for her cows.

Then there's the problem with finding truck drivers to haul milk to market. So many truckers have gone to work for the gas industry, hauling water and waste fluids to and from well sites, that dairy farmers have been forced to pay an additional 8 cents per hundredweight.

Farmers don't have to lease their land to suffer the impacts of drilling. French related the story of one farmer: although his 125 acres are not leased, the drilling activities on a well 100 feet from his property line have resulted in two fracking spills that have damaged his fields.

In addition to destroying crops and contaminating soil and water, these spills effect the health and lives of livestock. Farmers in Troy and Canton area are losing cows, French explained. Remember that farmer getting the large royalty check? He used a portion of that money to add new cows to his herd. And now, she said, the cows are getting sick.

The problem is that cattle, and sheep and goats, are attracted to drilling wastewater because it contains salts, along with the toxic chemicals. Cows that survive exposure to frack spill may lose their reproductive capabilities, and farmers often lose more than half their herd in cases of frack fluid exposure.

That cows – both dairy and beef – are affected by drilling chemicals has implications for food safety. Where do these cows end up? And what happens to the milk and dairy products from cows living in and around gas wells? Knapp is concerned about the implications industrialized drilling has for organic certification. Although Horizon continues to buy her milk some customers are already raising questions about the safety of food grown in the drill zone.

Another issue is property value. Knapp pointed to three houses along her road that have suffered water contamination due to drilling. Their value has fallen significantly, she said, noting that one home originally valued at \$350,000 was recently appraised at \$29,000.

Water is the key issue. The drilling companies can provide water, filling up huge tanks the locals call "water buffaloes". But the homeowner still has to filter it and make sure that the tanks don't freeze. That means heating elements and skyrocketing electric costs, Knapp said, noting that electric bills for some went from \$120/month to \$480/month. "And they still have to purchase bottled water to drink," she said.

"This is not a small inconvenience," Knapp said. "Not a day goes by that we don't discuss when – not if – we'll leave this farm."