The potential for widespread hydraulic fracturing, or “fracking,” threatens New York’s abundance of farmers markets, community-supported agriculture, and locally grown produce and food products. Fracking is a process that the oil and gas industry uses to extract natural gas and oil from shale rock formations buried deep within the Earth. It requires large quantities of water mixed with sand and toxic chemicals, which are injected underground at high pressure to crack dense rock and release oil and gas.

The New York State Department of Environmental Conservation’s (DEC) Revised Draft Supplemental General Environmental Impact Statement recommends opening up large areas of New York to shale gas development, which would permit fracking. However, the DEC did not analyze how fracking would affect New York’s agricultural and farming sector.

Recently, the news media leaked information that Governor Andrew Cuomo is considering a plan to allow fracking in five Southern Tier counties: Broome, Chemung, Chenango, Steuben and Tioga. Agriculture and farming are considered central to the Southern Tier economy, and about two-thirds of the area’s agricultural sales are for milk and dairy products.

Food and agriculture play important roles in New York’s economy, culture and environment. New York has the second-largest number of farmers markets in the country, ranks fourth for the number of organic farms, and is the third-largest dairy state. In fact, Steuben County, one of the counties that Governor Cuomo is considering opening up to fracking, has one of the highest numbers of dairies in New York. As state comptroller Thomas DiNapoli has noted, “New York State’s rural economies are dependent on the survival of the dairy industry.”

Agriculture is a leading economic engine in New York. In addition to its plentiful dairies, in 2010 New York was the second-largest apple producer in the nation, with apples being the leading fruit crop in the state. New York was also the second-largest maple syrup, cabbage and wine producing state. Moreover, New York’s wine sector is on the rise and is a huge economic driver, attracting millions of tourists each year. In 2010, milk, corn grain, corn silage, hay, apples and...
floriculture were the top six agriculture commodities in the state.19 (See Figure 1.) Overall, farming, agriculture and food production support thousands of jobs across the state, ranging from tourism to food processing.20

**Ways Fracking Threatens New York Farms That Supply the U.S. Northeast With Fresh, Locally Grown Food and Milk**

A Penn State Extension study found that among Pennsylvania counties with at least 10,000 dairy cows, counties that had at least 150 Marcellus shale wells experienced a 16 percent average decline in dairy cows between 2007 and 2010, compared to a 3 percent increase experienced in counties without shale gas wells.22 On average, the counties with at least 150 Marcellus wells endured an 18.5 percent decrease in milk production, while production in counties with no shale drilling increased.23 As Timothy Kelsey, the professor of agricultural economics who led the research, noted, “…it’s important to understand the implications of Marcellus Shale development on farming.”24

**Fracking Pollution Travels Beyond Site-Specific Well Pads**

Contamination is not just an on-site problem, and fracking’s risks extend beyond the drilling sites. Traffic accidents, spills, well blowouts and leaks can all put farms and agricultural land in jeopardy. Fleets of trucks are used to ship hazardous wastewater and toxic materials. Traffic accidents have caused fracking wastewater to be released into nearby freshwater bodies and private property.25 Such accidents also could pose a threat to nearby farmland. In New York, it is estimated that if the state allows shale gas development, each well would require 3,950 total trips of heavy trucks and 2,840 trips of light trucks.26

In Tioga County, Pennsylvania, in 2010, a fracking wastewater storage pond leaked and spilled into a pasture where 28 cattle were grazing.27 Eight of the 11 calves born the following spring from the herd were stillborn or were born so weak that they did not survive.28 In 2011, a well blowout in Bradford County, Pennsylvania, contaminated adjacent streams and farmland with thousands of gallons of drilling fluids.29 Exposure to fracking fluids can be lethal to livestock. A 2012 study identified an incident where 17 cows died within an hour of direct exposure to fracking fluids.30

**Competition for Resources**

In addition to water contamination, and because it takes millions of gallons of water to frack a single shale gas well,31 widespread shale development could compete with agriculture for increasingly limited water supplies.32

As trucking demands increase to accommodate fracking operations, commodity trucking rates for agriculture could increase,33 and the growing presence of the oil and gas industry could disadvantage farmers. In Pennsylvania, many truckers have gone to work for the industry; as a result, dairy

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**Figure 1. New York State’s Leading Agricultural Commodities by Market Value in 2010**

- **Milk**
- **Corn Grain**
- **Corn Silage**
- **Hay**
- **Apples**
- **Floriculture**
- **Cattle & Calves**
- **Soybeans**
- **Fresh Cabbage**
- **Fresh Sweet Corn**
- **Potatoes**
- **Grapes**
- **Eggs**
- **Summer Onions**
- **Wheat**
- **Fresh Snap Beans**
- **Squash**
- **Pumpkins**
- **Other**
farmers in both Pennsylvania and New York have had to pay more for transporting their milk. Resource competition may also present itself in other, potentially unforeseen ways. Sawdust is often used for animal farm bedding. The oil and gas industry also uses it, combining it with drilling waste before sending it off to landfills. Because of this, some farmers in Pennsylvania were unable to purchase sawdust for their cattle bedding. Resource competition may also present itself in other, potentially unforeseen ways. Sawdust is often used for animal farm bedding. The oil and gas industry also uses it, combining it with drilling waste before sending it off to landfills. Because of this, some farmers in Pennsylvania were unable to purchase sawdust for their cattle bedding.

### Air Pollution Can Harm Agricultural Yields

Volatile organic compounds, including benzene and toluene, can be released during fracking and can mix with nitrogen oxide emissions from diesel-fueled vehicles and stationary equipment to form ground-level ozone. Increased ground-level ozone damages crops and threatens food security. Moreover, ground-level ozone pollution from shale gas development is not just a local problem; it can be spread hundreds of miles.

### New York’s Farmland Is Vital

Much of the land in the Marcellus Shale region is active farmland. It would be shortsighted to go forward with shale gas development given that threats to food security are unknown. Agriculture and farming contribute heavily to New York’s economy and workforce and are crucial to rural economies and communities. Fracking could pose an economic and physical risk to the farms that supply New Yorkers and large portions of the U.S. Northeast with fresh, locally grown food.

For New York State’s agricultural sector to grow and thrive, Governor Cuomo must ban fracking in all of New York State.

### Endnotes

6 Haskell, Jean. “Assessing the Landscape of Local Food in Appalachia.” For the Appalachian Regional Commission. May 1, 2012 at 55.
9 Ibid. at 10.
11 Klopott and Efstathiou, Jr., 2012.
12 DiNapoli, 2010 at 1.
13 Ibid. at 2.
15 DiNapoli, 2012 at 1.
16 Ibid. at 1.
17 Ibid. at 2.
18 Ibid. at 2.
19 Ibid. at 2.
20 Ibid. at 1.
21 Data for graph from Figure 1, “Top Agricultural Commodities in New York (2010),” in: Ibid. at 2.
23 Ibid. at 3.
27 Pennsylvania Department of Environmental Protection. [Press Release]. “Cattle from Tioga County Farm Quarantined After Coming in Contact with Natural Gas Drilling Wastewater.” July 1, 2010.
30 Bamberger and Oswald, 2012 at 55, 59 and 60.
31 Ibid. at 52.
38 Colborn, 2011 at 1042.
40 Colborn, 2011 at 1042.