

# Fracking and Farmland: What Farmers and Landowners Need to Know About the Risks to Air, Water, and Land



## Ohio Ecological Food and Farm Association

Promoting and supporting  
sustainable agriculture since 1979

### Potential Impacts on Organic Production

There are more than 500 certified organic operations and nearly 16,600 acres of certified organic pasture and cropland in Ohio, much of it in areas of the state containing shale deposits.

Water and soil contamination can jeopardize a farmer or rancher's organic certification.

All products applied to certified organic land, whether intentional or not, must be disclosed in the farm's Organic System Plan. Gases and heavy metals can compromise certification, even if the elements are naturally occurring. Soil, product, or tissue samples can be taken by an organic inspector or certification agency at any time to verify compliance with the National Organic Program (NOP).

• • •

*For more information about  
fracking or to take action, go to  
[http://policy.oeffa.org/  
fracking](http://policy.oeffa.org/fracking), call (614) 421-2022  
Ext. 208, or email  
[policy@oeffa.org](mailto:policy@oeffa.org).*

### About Fracking

Fracking uses water, sand, and chemicals injected at high pressure into deep underground shale formations to create underground explosions that crack the rock and release natural gas. Also known as "high volume hydraulic fracturing" (HVHF), "horizontal fracturing," and "slick-water hydraulic fracturing," fracking became popular after 2005 when the process was made exempt from important provisions of the Clean Water Act, Safe Drinking Water Act, Clean Air Act, and other environmental and public health protections.

### Potential Impacts to Farmland

#### Water Contamination

Fracking requires up to 300 times more water than conventional hydrofracturing. Each well can be fracked up to 18 times, using millions of gallons of water each time. Waste water, or "brine," that contains chemicals used in the fracking process, as well as naturally occurring heavy metals and toxic gases, which return from the well, can contaminate ground and surface water supplies through underground fissures, surface spills, and blowouts. Injection wells are used by oil and gas producers to get rid of wastewater from the drilling process. The disposal of wastewater in these injection wells and unlined pits can pollute water supplies, and injection wells have also been linked to the proliferation of earthquakes in Oklahoma and elsewhere.

#### Soil Contamination

In addition to the chemicals used during the fracking process, waste water returned to the surface can contain radioactive materials, including strontium, uranium, and radon; and heavy metals which can contaminate the soil through spills, leaks, or during venting and flaring. Heavy metals such as lead, mercury, cadmium, chromium, barium, and arsenic have been found in soils near gas sites.

#### Land Fragmentation

Fracking creates significant disturbance to the land. Well pads can be four or more acres, each containing up to eight wells, which can be fracked multiple times. Semi-truck trailers are needed to deliver water, sand, and drilling equipment, and remove waste water. A typical well pad with seven wells could result in 13,000 round trips on local roads. Numerous pipelines are in the process of being constructed across Ohio, which also fragment farmland. Furthermore, construction and maintenance of pipelines compacts the soil and can introduce materials that jeopardize organic certification and the livelihood of organic farmers.

#### Livestock Health Effects

Livestock and wildlife are attracted to the salty taste of fracking brine. Poisoning can result in death or loss of normal reproductive function, still births, and birth defects. Light and noise from fracking wells can also increase stress on livestock.

#### Decreased Land Values

Gas development can lower property values and limit insurance access, making resale difficult, and leave farmers "stuck" with contaminated land that cannot be farmed.