

Liquid manure on snow & frozen ground – polluting our Michigan streams and Lake Erie



All photos: ECCSCM

Spraying liquid waste on snow or frozen ground – no crops to fertilize – is a risky practice and has led to highly-contaminated runoff to streams (upper photos, left to right: black manure flowing on the ice of Toad Creek after application to snow-covered field; manure runoff flowing to Hazen Creek; manure polluting Wolf Creek; lower l-r: manure runoff at inlet to Lime Lake; tankers spraying liquid manure, which ran off in sun and drained to Bean Creek)

With Lake Erie suffering toxic algae blooms, and a “dead zone” forming, calls for changes in manure-handling practices are getting louder and more urgent.

Scientists at Heidelberg College and the University of Toledo’s Lake Erie Center have sounded the alarm about the need to reduce phosphorus, especially dissolved reactive phosphorus, and other nutrients. The Great Lakes Restoration Initiative is putting funds and muscle into cutting back pollution.

Agriculture is the major contributor to nutrient pollution, both fertilizer runoff and manure runoff, especially liquid manure. While smaller farms may graze animals, allowing drier waste to be spread throughout growing pastures, where it decays and fertilizes rapidly, the large confined operations like the dairy CAFOs here in the headwaters of Lake Erie all liquefy animal waste (with clean groundwater) and then spray the contaminated liquid on fields. If those fields are tilled, or bare ground, or frozen, the waste can runoff, enter field tiles, and never function as fertilizer.

Worst manure management practice

One of the most polluting manure management practices is spraying liquid manure on snow-covered or frozen ground. The risk for pollution is extreme, with thaw, with sun. Since liquid manure is black, when sun hits the black manure on snow, the snow can melt quickly – even on cold winter days. Manure on snow led to the black flow on the ice of Toad Creek in 2003 (see photo above). The manure and melted snow drained to a catch-basin, which carried the black liquid through tiles onto the frozen stream. The pollution flowed on to Bean Creek, the Maumee River, and Lake Erie.

Many states are re-examining their manure management practices in an effort to reduce nutrient pollution. Iowa enacted a new law acknowledging in particular the pollution risk of black manure on white snow. The law, which went into effect in December 2010, makes it illegal to apply liquid manure on snow-covered ground from Dec. 21 to April 1, and on all frozen ground from Feb. 1 to April 1.

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Other states – best practices

(Note: language matters!)

Wisconsin: CAFOs are **prohibited** from spreading liquid manure on frozen or snow-covered ground unless injected or immediately incorporated into the soil.

Iowa: Confinement feeding operations with more than 500 animal units **cannot legally apply** liquid manure on snow-covered ground from Dec. 21 to April 1, or on frozen ground from Feb. 1 to April 1.

Ohio: Unless approved in advance, **no manure application shall occur** on frozen or snow-covered ground.

Kansas: Unless approved in advance, liquid waste, CAFO animal waste or other liquid process waste **shall not** be land-applied when the ground is frozen or snow-covered.

Indiana: Surface applications of manure on frozen or snow-covered ground are **prohibited** on slopes in excess of 2%.

Minnesota: CAFO liquid manure application **prohibited** on slopes in excess of 2%.

MICHIGAN: “Application of manure to frozen or snow-covered soils should be avoided.” (“Should” is a recommendation, not a requirement.)

Source: Universities Council on Water Resources (Survey: DNRE, 2010)

Vreba-Hoff gone from 3 Hudson dairy CAFOs

Vreba-Hoff no longer owns or operates any dairies in Hudson. On Nov. 12, 2010, Southern Michigan Dairies, a Rabo Agrifinance entity incorporated in Delaware on Nov. 3, 2010, took over operation of all three Vreba-Hoff facilities.

Rabo Agrifinance, the bank that filed foreclosure action against Vreba-Hoff, created the new dairy entity and immediately closed down two Vreba-Hoff locations – Waldron Dairy and Vreba-Hoff 1 on Dillon Hwy – and moved cows to the Vreba-Hoff 2 facility on US- 127, where all operations are now consolidated. **\$580,000 fine still in place**

Fines, liens of \$580,000 against properties, and court orders remain in place and are the responsibility of Southern Michigan Dairies, according to Nicole Zacharda of the Department of Natural Resources and Environment.

Even though Vreba-Hoff no longer owns or operates the dairies, Vreba-Hoff's spokesperson Cecilia Conway, told the Adrian *Telegram* on Nov. 18, "We're still here. We haven't gone away."

Future uncertain – Option Agreement signed

The future of the CAFOs, and of Vreba-Hoff, is uncertain. A Memorandum of Option Agreement was signed and filed on Nov. 19 with the Lenawee County Register of Deeds, with Southern Michigan Dairies granting Willie van Bakel, president of Nova Lait, an Ohio corporation, "certain rights and options to purchase...the real property for such price and on such terms and conditions as are described in the Option Agreement."

The Option Agreement has not been made public. Willie van Bakel is, of course, also the head of Vreba-Hoff.

Winter Spraying - continued from p. 1

Michigan's Generally Accepted Agricultural Management Practices (GAAMPs) prohibit nothing. They are voluntary guidelines only. The Manure Management GAAMPs do say the application of manure to frozen or snow-covered soils "should be avoided." And liquid manures should only be applied to soils where slopes are 3% or less.

But "should" is not "shall." The recommendations are not legally binding.

If liquid manure on a frozen field runs off into a stream – that is prohibited – and the CAFO can be cited for a discharge violation. But that's after the fact. The risky practice is not prohibited. No preventive practices are required.

2012 Manure Management GAAMPs

The committee that revises Michigan's Manure Management GAAMPs will be meeting in March to begin work on the 2012 GAAMPs.

For current GAAMPs, see the Michigan Dept. of Agriculture site:

<http://www.michigan.gov/mda/> Click Farming, then Environment.

Send comments to the Wendy Powers, Chair, wpowers@msu.edu and to Scott Miller, millers@michigan.gov

Request that Michigan follow Iowa's example, or Wisconsin's example, and protect our drinking water, our streams and Great Lakes. **Request that Michigan – at last – prohibit the application of liquid manure on snow-covered or frozen ground.**

WHAT'S HAPPENING NATIONALLY?

Farm Bureau fights Clean Water Act clean-up of Chesapeake

American Farm Bureau Federation President Bob Stallman announced at the group's convention Jan. 9, 2011 in Atlanta that Farm Bureau will sue the Environmental Protection Agency to try to stop use of the Clean Water Act to reduce the level of pollutants in the Chesapeake Bay.

EPA posts CAFO air emission monitoring studies

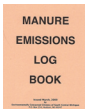
In January, EPA posted online the data and reports from a 2-yr CAFO air emission monitoring study at 21 sites, including CAFO facilities and lagoons. The study monitored particulate matter, ammonia, hydrogen sulfide and volatile organic compounds, some of the pollutants most commonly emitted from confined animal operations. The study was funded by the animal production industry as part of a 2005 compliance agreement with EPA.

To help develop emission-estimating models, as required by the study, EPA has called for public comment, including any additional data on CAFO emissions, information about field application emissions, and other pertinent details on industry practices.

To see the monitoring reports and get more information on submitting comments, go to: <http://www.epa.gov/airquality/agmonitoring/>

How to document the health impacts on our community

When you notice manure emissions and have physical or mental health symptoms, when you have to change your daily activities, please report the details to ECCSCM. All information will be anonymous. We use the health data to raise awareness and to inform policy makers, legislators and health departments.

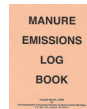


To report health symptoms from manure emissions

1) go online: www.nocafos.org/reportform.htm

or

2) use printed log: contact us for a free copy of *Manure Emissions Log Book*



ECCSCM Meetings - 3rd Wednesday of the month, 7:30 p.m. Hudson Community Center

JOIN US: Yes, I want to help protect our water and promote sustainable agriculture. Contributions support water monitoring and community education.

Name: _____

Address _____

City _____ State _____ Zip _____

____ Annual Membership \$25 ____ Senior Membership \$10

Mail to: ECCSCM, P.O. Box 254, Hudson, MI 49247

Thank You!

We Support Sustainable Agriculture

that preserves and protects water quality in streams and lakes

that raises animals in a healthy, natural environment, grazing, absorbing sunshine

that avoids the steady diet of hormones and antibiotics given animals in the crowded, confined conditions of industrial facilities

that values and protects farmland, the environment and the rural community