

Dairy Feed Management

Ag vulnerable to climate change

From Watt Feed e-News (May 22, 2009)

Agriculture both affects and is affected by climate change due to the increase in greenhouse gas, speakers said at a lively debate at the World Agricultural Forum in St. Louis. Speakers debated how, or even if, agriculture can be part of the solution to global warming in a session called "Climate change: Impacts on food security."

"Agriculture is not at the table (at the global debate on climate change that will occur this fall in Copenhagen)," said moderator Carole Brookins, former U.S. representative to the World Bank. "How do we make agriculture part of the solution?"

Livestock is very vulnerable to climate change, said Dr. Frank M. Mitloehner, air quality extension specialist at the University of California-Davis. During a recent hot summer, 30,000 dairy cows died in California in one week, and one of the state's largest dairy herds saw productivity fall by one third.

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A newsletter for certified feed management planners

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PA, Bay states set new milestones for accelerated cleanup of Chesapeake Bay

From a press released prepared by the Pennsylvania Department of Environmental Protection.

HARRISBURG – Environmental Protection Secretary John Hanger today (May 14, 2009) outlined how new, clearly-defined and attainable nutrient reduction goals for the Chesapeake Bay and a presidential order calling for increased federal participation in the cleanup will accelerate recovery of the bay while greatly improving the health of Pennsylvania's rivers and streams.

Hanger represented Pennsylvania at the annual meeting Tuesday of the Chesapeake Executive Council in Mount Vernon, Va. The council consists of representatives from the six states that contribute fresh water to the bay along with the District of Columbia, the Chesapeake Bay Commission, the U.S. Environmental Protection Agency and the U. S. Department of Agriculture, and is responsible for establishing policies for restoring and safeguarding the bay. "The Chesapeake Executive Council has established clearly-defined, attainable goals for reducing nitrogen and phosphorus pollution in the bay and restoring the health of this vital estuary," Hanger said. "Creating a series of two-year milestones that will demand real action from all states, along with President Obama's executive order, clearly show that all jurisdictions have committed to accelerating the pace of bay restoration."

The Executive Council announced a series of two-year milestones for reductions in nitrogen and phosphorus pollution that cause murky water and algae blooms that block sunlight from reaching bay grasses and dramatically reduce oxygen levels for aquatic life. In the past, states had established deadlines for reduction in nutrients and sediments but had not set specific benchmarks or realistic deadlines. As a result, although progress was being made, the deadlines were moved to accommodate shortcomings in pollution reduction efforts.

Under the milestone agreement announced Tuesday, Pennsylvania will reduce its current nitrogen load to the Bay from 102 million to 95 million pounds per year by 2011, and reduce phosphorus loading from 3.5 million to 3.19 million pounds per year by 2011.

The ultimate goal is to have pollution reduction processes in place by 2025 that will reduce Pennsylvania's annual nitrogen load to 72 million pounds per year and phosphorus load to 2.46 million pounds per year. "Pennsylvania is responsible for 50 percent of the fresh water entering the Chesapeake Bay, and as a result, no state has been called upon to produce greater reductions in nitrogen and phosphorus loads," Hanger said. "As we reduce raw sewage running into our streams, Pennsylvanians will also realize the greatest benefits from this effort."

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Bay a priority

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The action by the Executive Council was further enhanced when President Barack Obama issued an executive order directing EPA to take a larger role in accelerating and overseeing restoration efforts by the states and the federal government. The agency will take a number of actions including creating a Total Maximum Daily Load (TMDL) in 2010 which establishes federal limits for nitrogen and phosphorus entering Chesapeake Bay waterways from six states and the District of Columbia.

The secretary noted that Pennsylvania is leading by example through innovative programs that are improving water quality by significantly reducing nitrogen, phosphorus and sediment pollution to the bay and are producing measurable results such as a 22 percent increase in underwater bay grasses in the upper reaches of the bay during 2008 which signifies the improvements in water quality entering the bay.

To further reduce pollutants that damage Pennsylvania's waterways and ultimately impact the bay, Pennsylvania is:

- Promoting wider use of riparian forest buffers and grass buffers to reduce urban and agricultural runoff, reduce sediment and nutrient loading and improve habitat for aquatic life;
- Creating the Resource Enhancement and Protection Program (REAP) to assist and encourage farmers to use no-till farming which greatly reduces nutrient and sediment-laden runoff from agricultural lands;
- Implementing a new anti-idling law to help to reduce atmospheric deposition of nitrous oxide emissions from diesel exhaust. Nitrogen deposition is responsible for approximately one-third of the nitrogen entering the Chesapeake Bay from Pennsylvania's waterways;
- Awarding Growing Greener grants to assist with installation of agricultural and stormwater best management practices and the development of nutrient Management plans and conservation planning practices at Pennsylvania farms. Pennsylvania was the first state in the Chesapeake Bay watershed to require farms to have some form of nutrient control.
- Directing money from the H2OPA fund, the American Reinvestment and Recovery Act and the Clean Water Referendum through PENNVEST to finance projects that will improve the operation of municipal wastewater facilities in the Susquehanna River watershed.

"Pennsylvania has taken a leadership role in the restoration of the Chesapeake Bay since the signing of the original Chesapeake Bay Agreement in 1983," Hanger said. "All of the steps we have taken in the past to reduce the pollution entering the bay from Pennsylvania, and the steps we will take in the next few years, are putting Pennsylvania in a good position to comply with the EPA's forthcoming TMDL for the entire watershed and to keep our commitment to do our part to restore the Chesapeake Bay."

The Chesapeake Bay is the nation's largest estuary. The 64,000 square mile bay watershed is home to 17 million people in Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia and the District of Columbia.

For more information, visit www.depweb.state.pa.us, keyword: Chesapeake Bay.

Odor charges dropped

From Dairy Herd news source (May 15, 2009)

On May 6, District Judge Michael Kraker dismissed criminal charges filed against Excel Dairy for a lagoon-emptying incident that caused offensive odors to be released.

The charges stemmed from odor complaints received during and after the Minnesota Pollution and Control Agency ordered a manure lagoon to be emptied at the dairy operation.

In the ruling filed in Marshall County, Minn., Judge Kraker stated that the lagoon remediation was "justified and excusable" because it was ordered by the Minnesota Pollution and Control Agency.

In a recent statement, Rick Millner of Prairie Ridge Management Company, Veblen, S.D., explained that Excel Dairy was issued a permit in March 2007 that allowed two new manure basins to be built on the operation and also required Excel to completely empty an original lagoon in order to inspect the bottom and sides.

To meet the requirement, sludge at the bottom of the original basin was excavated beginning in May 2008 and re-directed to the two new aerobic basins. This caused the release of offensive odors that led to the court case.

He reiterated that it was never Excel Dairy's intent to cause offensive odors. "The odors were unfortunate, but were caused by the MPCA-ordered remediation that disturbed the manure basins and prevented normal operations," Millner explained.

Source: Prairie Ridge Management Company

NOTE TO READERS:

Some of the articles in this newsletter relate events that are happening in other parts of the country so that you may understand what precedent is being set that could eventually impact the Mid-Atlantic region and the Northeast.



Welcome to this issue of
Dairy Feed Management,
a monthly publication featuring news
of interest to certified feed management
planners. For more about feed
management issues, visit:

<http://dairyalliance.psu.edu/resources/feed-management-planners/>

Ag vulnerable

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California is the largest U.S. milk producing state. Livestock is affected by the variability in climate, he said.

Livestock contribution debated

Mitloehner added that the recently published figure which stated that livestock is responsible for 18% of global warming is "very controversial and cannot be applied regionally." For example, he said, the bulk of the 18% is due to deforestation in developing countries, while livestock in developed countries are only a small contributor to global warming. He noted that in the United States forested land has actually increased in recent years. Furthermore, he said that methane production from cows has decreased dramatically since the 1940s due to increases in productivity.

Mitloehner is critical of consumers who want safe technologies banned that increase livestock efficiency, such as rBST for cows. In addition, organic systems may contribute more to global warming, Mitloehner said. He continued saying that through the increasing use of methane digesters, methane can be captured and used to make electricity and natural gas.

Professor Alan Buckwell, director of the Land and Business Association of the United Kingdom, said that agriculture is hurt by climate change. Specifically, he said, climate change above 2% creates heat stress for plants and animals and spreads diseases for both. He also said that it's a "gigantic challenge," but agriculture has to learn how to reduce its production of methane and nitrous oxide, which contribute to greenhouse gases. It's a very complex issue, he said, and "we do not have good measurement tools."

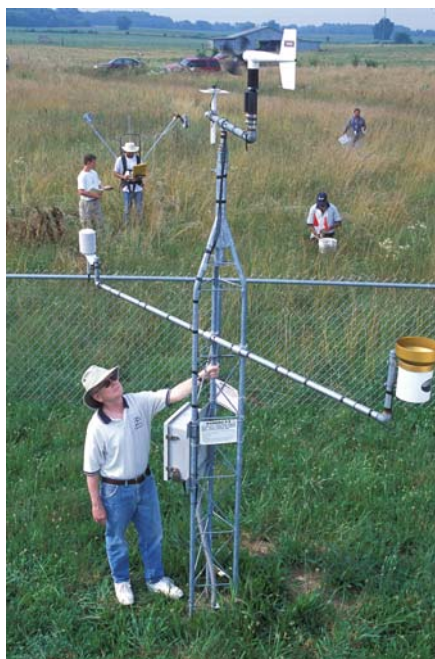
In addition, Buckwell and other panel members said, it's very difficult to control the behavior of millions of independent farmers. Right now, he said, "Agriculture is not part of the solution, and we better face that."

Poor most affected

One piece of the solution is to boost efficiency of plants, which results in fewer emissions, said Dr. Jerry Hatfield, director of the USDA-ARS National Soil Tilth Laboratory in Ames, Iowa. He added, however, that making plants more resistant to climate change "doesn't get quite the press."

Particularly affected by climate change will be the world's poor, which are disproportionately concentrated in Africa. "By 2080 it's a terrible picture for the world's poor," said Frank Tugwell, president and CEO of Winrock International. Many areas of Africa will "not be very inhabitable," he said, which presents "a catastrophic picture." One of the major problems in reversing climate change trends, he said, is that democratic societies are not very good at dealing with long-term problems.

Michael Walsh, executive vice president, the Chicago Climate Exchange (CCX), said that despite a dire picture, positive developments are taking place within agriculture. For example, 20 million



Hydrologist Tom Jackson and several of the Alabama Soil Moisture Experiment ground crew collect an array of ground observations at a permanent NRCS Soil Climate Analysis Network site. (Photo by USDA/ARS)

acres in the U.S. and Canada have enrolled in the CCX, in which farmers agree to management practices that sequester carbon in the soil in exchange for payments. "There is reason for optimism," he stated. Walsh added that in time, it may be possible that agriculture may be 5% part of the solution, and that as much as 20% of net ag income may come from programs such as those offered by the CCX. Livestock producers may also participate in CCX programs by reducing methane output.

Disagreement over no-till

"We won't take ag emissions to zero, but we can improve," Hatfield said. Farmers can "drastically change" nitrogen emissions, he added. Some panelists were concerned, however, that at the same time farmers in developed nations reduce their emissions, farmers in developing nations may increase them by adopting more efficient production practices with more fertilizer and other inputs. Some said that through proper development, farmers in developing nations may be able to concentrate production on the highest-producing soils, thus reducing their carbon footprint. The panelists also debated whether or not reduced tillage and no-till actually reduces or increases carbon emissions. Europe does not allow farmers to receive credit for carbon sequestration for no-till because of the view that it may increase carbon emissions. Some panelists, however, took the strong view that no-till reduces a farmer's carbon footprint.

Panelists also debated whether incentives will be enough to change the behavior of millions of farmers or whether mandatory incentives will be necessary. "It's better to produce incentives," Tugwell said, while Buckwell countered with: "I don't think we know enough about incentives."

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Pesticide permit ruling a burden on producers

By Forrest Laws, Farm Press Editorial Staff (May 14, 2009)

You just received some disturbing news. Plant bugs or soybean aphids or some other pest has been discovered in above-threshold numbers in a cotton, soybean or corn field bordering a lake or stream that meanders through your farm.

The news starts an agonizing mental process that could mean you spend \$25,000 to \$30,000 depending on which pesticide you use and how many acres must be treated. That's a decision no farmer takes lightly.

But what if you had to consider another step: Filing a request for a National Pollution Discharge Elimination System permit from the state bureau of plant industry, department of agriculture or other regulatory agency because the pesticide could drift into the lake or stream?

That could become a reality because of a ruling by a three-judge panel of the U.S. Sixth Circuit Court of Appeals in a lawsuit brought by several environmental groups against EPA.

In the past, EPA officials have said pesticide applications were exempt from the permitting requirements of the Clean Water Act if they followed the pesticide label. But environmental activists weren't satisfied and decided to "muddy" the waters.

In its ruling in January, the three-judge panel said EPA could no longer follow that policy but, instead, must require farmers to obtain NPDES permits for applications made to, over or near bodies of water.

The judges did agree with EPA that not all pesticides should be considered pollutants, but they declined to follow previous court rulings which said miniscule amounts of pesticide in water did not violate the law if applied for purposes approved by EPA.

"If the panel's findings stand, scores of beneficial pest control activities necessary to maintaining the health and welfare of Americans could be subjected to lawsuits," said Jay Vroom, president and CEO of CropLife America, which represents technology providers.

CLA, farm groups, Agriculture Secretary Tom Vilsack and Sens. Tom Harkin and Saxby Chambliss, the chairman and ranking member of the Senate Agriculture Committee, criticized the decision and asked EPA to challenge it. (Instead, EPA asked that implementation of the ruling be delayed two years.)

The American Farm Bureau Federation and CropLife America requested the full Sixth Circuit Court of Appeals review the three



To determine the amount of pesticide loadings in the Chesapeake Bay, chemist Laura McConnell (right) and Maryland University graduate student Bo Liu collect water samples from the largest tributary of the Bay, the Susquehanna River. (Photo by USDA/ARS)

-judge ruling and expressed disappointment that EPA has not done so.

"Farmers should not need a permit under another law when they are already following an existing law," said AFBF President Bob Stallman. "The decision will complicate farmers' ability to farm and raise their expenses without improving the environment."

The ruling raises other issues. In their letter to EPA Administrator Lisa Jackson, Harkin and Chambliss note the decision could "impose an overwhelming burden on the agency and state agencies administering the NPDES permit program and would be difficult to administer." It could also allow states to modify pesticide rules and hinder Section 18 emergency use labels.

"A state-by-state regulatory mechanism in which each state can modify permit requirements would present serious logistical problems," they say. "First, it would require manufacturers to deal with at least 49 separate jurisdictions, on thousands of products with numerous active ingredients. Individual producers might well have to deal with two or more sets of regulations."

That, of course, may be what the environmental activists intend. These days, the goal of those groups seems to be to make a point, no matter what the cost to farmers, input suppliers, consumers or the U.S. economy.

e-mail: flaws@farmpress.com

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Produced by
Penn State Dairy Alliance
324 Henning Building
University Park, PA 16802
Phone: 888-373-7232
Email: askdairyalliance.org
www.dairyalliance.org