

WATERWAYS

A Quarterly Publication of the Iowa Drainage District Association

Volume 3, 2012

Iowa Farm Technology Shines

State and federal organizations, government funded ag researchers and private ag businesses held their own trade show of a sort on September 12 for the secretaries of agriculture representing 45 states. Also included in the entourage were members of the Gulf of Mexico hypoxia task force.

The event, held at the Iowa State University BioCentury Research Farm in rural Ames, included field demonstrations, tours of the facility, educational posters and trade booths, all touting Iowa's expertise in bringing conventional farming into sustainable environmental practices.

"I don't know anything that's been done like this before," said Bill Northey, Iowa's secretary of agriculture, who played host. Northey and the National Association of State Departments of Agriculture (NASDA) and the Hypoxia Task Force, which Northey co-chairs this year, were set to meet, so it was decided to bring both together and show what Iowa is doing in advancing environmental technology in farming.

The Gulf of Mexico Hypoxia Task Force, made up of members from five federal agencies and 12 state agencies is working to address environmental concerns associated with the Gulf of Mexico hypoxia zone - also known as the "dead zone."

In addition, Northey said the NASDA members "are not afraid of the water quality issue." Iowa created several initiatives in getting farmer volunteers to get onboard with sustainable, environment-friendly practices and bring those efforts to their neighbors.

"This won't get fixed by regulations," Northey said, "but through volunteer efforts."

Ann Mills, the U.S. Department of Agriculture undersecretary for natural resources and the environment, is the other co-chair of the task force. She said the event was ideal for her organization which formed in 1997. "We're interested in Midwest practices and technology available to support farmers to remain productive, while maintaining healthy soils



The IDDA executive director had the opportunity to test drive the John Deere ride-n-drive system at the technology expo. Both the tractor and Mr. Torbert survived the experience.

and (have) less nutrient runoff."

The Gulf's dead zone was created with increased nitrates flowing down the Mississippi River Basin, the largest watershed in the world. Part of the nitrates comes from field runoff of farms.

"This is unique, Mills said of the displays and demonstrations, "and it's a smart use of our time by talking to researchers and private entities."

She said the task force has moved from identifying the causes of hypoxia in the Gulf to actions that need to be taken.

"We want to know how to use the new technologies and information, using Extension services and farmer-to-farmer programs.

"We're starting to put the mechanisms in place to measure edge-of-the-field nutrient runoff into the Mississippi."

Mills said the task force members have noted a drop in nitrogen and sulfur reaching the gulf.

She said the task force knows there is more than one practice that's needed to solve the hypoxia problem.

Continued on page 2 ►

Waterways is a quarterly publication of the Iowa Drainage District Association. Comments can be directed to the association at:

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Plan to Attend!

IDDA Annual Meeting

Friday, December 7, 2012, Fort Dodge, Iowa

Details in this issue!

Continued from page 1 ▶

She said the organizations will also work for more cost-share for farmers to adopt these practices.

She said the USDA’s Natural Resources and Conservation Service has spent \$221 million in cost-share for water quality initiatives that are protecting 1.5 million acres in the Mississippi River Basin. In 2013, another \$80 million is earmarked for additional efforts, bringing in more organizations. “We believe a targeted approach is making a difference,” Mills said.

Some of the displays, field demonstrations and farm visits showed water quality efforts including;

- Use of cover crops that, among other benefits, tie up nitrogen in plant roots while fields lie idle between harvest and planting.

- Bioreactor filter systems that take nitrogen out of field runoff before it reaches a waterway.

- Drainage tile systems designed to back up water temporarily giving it a chance to soak down, rather than run-off.

- An array of farmer-to-farmer systems.

- Research on water quality and soil impact of strip-till and no-till systems

- Developing wetlands that filter nitrogen

- Precision chemical application implements, using global positioning systems that pinpoint areas in fields that do not require spraying, such as waterways and field areas.

- Farmer-to-farmer program that encourage sustainable farming practices as well as using social media to tell farming’s story to non-rural audiences.

Source—by Larry Kershner of the Ft. Dodge Messenger News.

Unattributed Wisdom

“If you want to walk on water you have to get out of the boat.”



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Lawsuit would Force EPA to Adopt Numeric Water Quality Standards

A coalition of environmental groups filed a federal lawsuit in March of this year to ask the court to force the Environmental Protection Agency (EPA) to adopt tougher numeric nutrient standards for water quality in the Mississippi River basin. The court case is Gulf Restoration Network v Jackson

In 2008, the plaintiffs in the lawsuit petitioned the EPA to establish numeric nutrient criteria and TMDLs (total maximum daily load) for the Mississippi River. EPA denied that petition in July of 2011. In its denial, EPA said that it did not view the “use of federal rule-making authority as the most effective or practical means of addressing the concerns in the petition. Undertaking an unprecedented and complex set of rule-makings to promulgate federal numeric nutrient criteria for a large region would be highly resource and time intensive. The use of EPA’s rule-making authority is not a practical or efficient way to address nutrients at a national or regional scale.”

So, what the lawsuit seeks to do is have the courts force EPA to do what they refused to do in denying the petition.

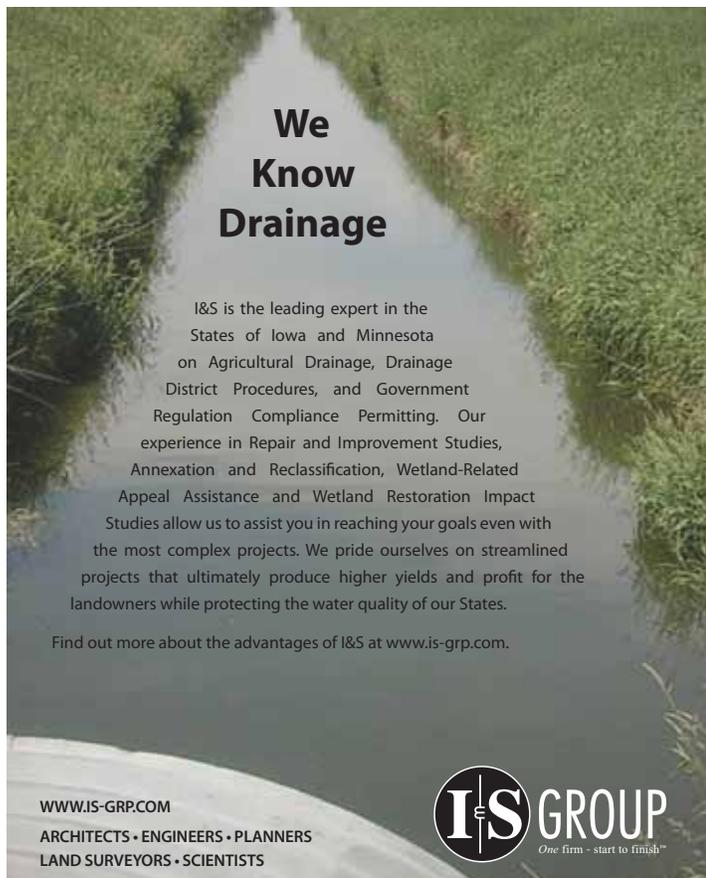
The Clean Water Act allows states to choose whether to use narrative or numeric standards to determine water quality. Most states in the Mississippi Basin employ the narrative method which calls for “no nutrients at levels that cause a harmful imbalance of aquatic populations,” meaning water quality should be such that it doesn’t lead to the demise of one species or another. Numeric standards would set hard and fast limits on nutrients.

The American Farm Bureau and fourteen state organizations (including Iowa) claim that such a move would be bad for farmers. Numeric standards, they say, could impose limits on runoff to bodies of water that drain into the Mississippi River. They have intervened in the lawsuit. The ag groups say that numeric standards and TMDLs do not take into account the successful voluntary efforts by farmers to reduce nutrient loss.

“Setting appropriate numeric nutrient standards is a complex and difficult scientific undertaking and EPA has proven it is not up to the task,” AFBF President Bob Stallman said in a press release. “Farmers have no reason to believe that EPA could establish scientifically defensible standards for any one state, much less for 40 percent of the U.S. land mass. The AFB opposes a top down one size fits all approach.”

State farm bureaus intervening (in addition to Iowa) include Arkansas, Illinois, Kansas, Kentucky, Louisiana, Minnesota, Mississippi, Missouri, Nebraska, Oklahoma, South Dakota, Tennessee and Wyoming.

Iowa already has comprehensive efforts underway to address water quality issues. IDALS is working with Iowa State University to develop a technical assessment on current agricultural best management practices. The assessment will determine what practices work best and where on the landscape they should be. IDNR is also working with point sources of pollutant to come up with cost effective strategies for larger cities and industries. IDDA will have two programs on these current state efforts on our IDDA annual meeting agenda.



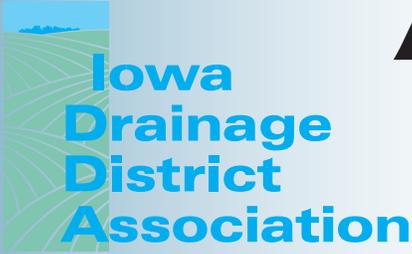
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Annual Conference

December 7, 2012

Starlite Village Hotel • Fort Dodge, Iowa

- 7:45 a.m. Registration Opens
- 8:30 a.m. IDDA Annual Business Meeting
- 9:00 a.m. Mr. Dean Lemke, Natural Resources Engineer Supervisor, Iowa Dept. of Agriculture and Land Stewardship: "Iowa's Nutrient Reduction Strategy—how does drainage fit in?"
- 9:40 a.m. Mr. Dan Jaynes, Soil Scientist, USDA National Laboratory for Agriculture and the Environment, "Saturated Buffers as a means of reducing nitrate in tile water."
- 10:20 a.m. Dr. Matt Helmers, Iowa State University, "The Statewide Nutrient Reduction Strategy, Science Assessment."
- 11:00 a.m. Ms. Kellie Gregorith, Iowa One Call, "Protect What Really Matters."
- 11:15 a.m. Dr. Nathan Young, Associate Director, Iowa Flood Center, "The Iowa Flood Center."
- 11:50 a.m. Sponsor Presentations
- 12:15 p.m. Buffet lunch
- 1:00 p.m. Panel with open discussion time—get your drainage questions answered.
- 1:45 p.m. Adjourn

Registration Form



Annual Conference

Friday, December 7, 2012

Starlite Village Hotel • Fort Dodge, Iowa

Name _____

County/Company _____

Address _____

Phone _____ E-mail _____

Please use one registration form for each person attending. **Pre-registration cost is \$40 for IDDA members and \$50 for non-members. On-site registration will be \$50.** Registration fee includes morning coffee & rolls, noon meal, all conference handouts and conference gift item. Speakers and some sponsors are exempt from the registration fee. On-site registration will also be available. Registration refund requests must be in writing.

Send check, warrant or money order to:
IDDA
c/o TP Anderson Company
P.O. Box 509
Humboldt, IA 50548

Questions – Contact IDDA Executive Director John Torbert at 515/221-1961 or jtorbertidda@mchsi.com.

Please return registration form no later than Monday, Dec. 3, (if possible) for purposes of meal count. Refund requests must be in writing.

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Drought brings smallest Gulf of Mexico Dead Zone since 1985

Scientists supported by the National Oceanic and Atmospheric Administration (NOAA) have found the size of this year's Gulf of Mexico oxygen-free 'dead zone' to be the fourth smallest since mapping of the annual hypoxic or oxygen-free area began in 1985. Measuring approximately 2,229 square miles, the 2012 area is slightly larger than Delaware.

The survey also found a patchy distribution of hypoxia across the Gulf differing from any previously recorded. This is in stark contrast to last year, when flood conditions, carrying large amounts of nutrients, resulted in a dead zone measuring 6,770 square miles, an area about the size of the state of New Jersey. The last time the dead zone was this small was in 2000 when it measured 1,696 square miles, an area slightly smaller than Delaware.

"The smaller area was expected because of drought conditions and the fact that nutrient output into the Gulf this spring approached near the 80-year record low," said Nancy Rabalais, Ph.D, executive director of the Louisiana Universities Marine Consortium (LUMCON) who led the survey cruise. "What wasn't expected was how the scattered distribution of hypoxia areas differed from any others documented in the past. Confirmed, however, is the strong relationship between the size of the hypoxic zone and the amount of fresh water and nutrients carried to the Gulf by the Mississippi River."

The smallest recorded dead zone to date measured 15 square miles in 1988. The largest dead zone, also called the hypoxic zone, measured to date occurred in 2002, encompassing more than 8,400 square miles. The average size of the dead zone over the past five years has been 5,684 square miles, more than twice the 1,900 square mile goal set by the Gulf of Mexico/Mississippi River Watershed Nutrient Task Force.

Hypoxia is fueled by nutrient runoff from agricultural and other human activities in the Mississippi River watershed, which stimulates an overgrowth of algae that sinks, decomposes and consumes most of the life-giving oxygen supply in bottom waters.

The hypoxic zone of the coast of Louisiana and Texas forms each summer and threatens valuable commercial and recreational Gulf fisheries. In 2012, the dockside value of commercial fisheries in the Gulf was \$639 million. More than 4.6 million recreational fishers

took an estimated 22 million fishing trips in 2010, further contributing to the Gulf economy.

Earlier in the summer, NOAA-sponsored forecast models developed by Donald Scavia, Ph.D of the University of Michigan, and R. Eugene Turner, Ph.D of the Louisiana State University had issued conflicting forecasts for the hypoxic zone, ranging from a small of 1,197 square miles to a moderate 6,213 square miles. The forecast of the larger zone hinged on the possibility that organic matter stored in Gulf sediments from large algal blooms during the 2011 flood would act as an additional carbon source for the development of hypoxia this year. The small size of this year's hypoxic zone suggests only a limited role for this "carryover effect" in hypoxia formation under the current flow conditions.

Prior to the LUMCON cruise, two surveys in June, one led by a NOAA-supported Texas A&M team and another by NOAA's Southeast Fisheries monitoring and assessment program's summer survey, found very little hypoxia in the Gulf.

NOAA has been funding monitoring and research for the dead zone in the Gulf of Mexico since 1985 and currently oversees the two national hypoxia research programs authorized by the Harmful Algal Bloom and Hypoxia Research and Control Act. Source - National Oceanic and Atmospheric Administration, July 27, 2012.

Iowa/Minnesota Drainage Forum announced

It is Minnesota's turn to host the annual Iowa/Minnesota forum. This year's forum will be held on Tuesday, November 20th at FarmAmerica in Waseca, Mn. The program this year will feature presentations and discussion on climatic variability—recent extremes and implications for water management; cover crops for biomass and water/nutrient management and, statewide nutrient management and water quality topics. The full agenda has not yet been released. For further information contact Gary Sands. His email address is grsands@umn.edu. Hopefully, by the time this appears in your mailbox, the IDDA office will also have further information on the program.

New Plant list could expand wetland designations

With the addition of more than 1,470 plant species to the U.S. Army Corps of Engineers database of plant life that federal agencies use for wetlands designations, the number of marginal wetlands that may require Clean Water Act permits will rise, cautioned Don Parrish, American Farm Bureau Federation environmental specialist.

The Corps say the number of new plant species added to the roster will increase the national wetland plant list (NWPL) by 22 percent.

This national list of wetland plant species and their wetland ratings will be used extensively by federal and state agencies in wetland delineations and the planning and monitoring of wetland mitigation and restoration sites, according to the Corps.

“It’s not the plant’s presence alone that would trigger permit requirements for a marginal wetland. The results of soil and water hydrology analysis should also be considered. In the field, the EPA and the Corps are supposed to use the presence of hydric soils and wetland plants as ‘indicators’ of hydrology, Parrish explained. “However, expanding the NWPL by nearly 1,500 plants raises red flags about the federal government’s reach, the ultimate cost to ranchers and landowners and the insignificant benefits to the environment.”

An ever-expanding list - The number of plant species on the list has been expanding ever since it was first released by the U.S. Fish and Wildlife Service and then handed off to the Corps in 2006. The updates reflect what the Corps describes as a Web-based interagency scientific process. However, the list lacks any real public oversight.

Parrish said the list expansion is particularly troublesome in light of the Corps’ and EPA’s efforts to increase federal regulatory reach through a guidance that agencies are preparing to finalize. The regulatory agencies will use this larger list as another justification to expand their controls into the most marginally wet and controversial areas imaginable, he said.

“The guidance effectively eliminated the term ‘navigable’ from the Clean Water Act, which dramatically expands the scope of jurisdiction under the Clean Water Act and eliminates a central principle of the act, which reserves certain waters to the exclusive jurisdiction of the states,” Parrish explained.

“The guidance also will apply to the entire Clean Water Act and not just the 404 permitting process. Water quality standards, the National Pollutant Discharge Elimination System permit program and state certifications are just a few of the major Clean

Water Act regulatory programs that will be expanded as a result of the guidance.”

Creeping regulations - The EPA and Corps have confirmed that their guidance will result in an increase in determinations that they have jurisdiction over water spots and lands and will result in more farmers and other landowners have to get permits to use their property.

Farm Bureau also has concerns about the proposed policy being advanced through a guidance document rather than the rule-making process, which would at least allow input from ranchers and farmers would be negatively affected by it. *Source—FB News*

State renews CREP Program grant with IDDA

The Iowa Department of Agriculture and Land Stewardship (IDALS) has announced its intention to renew the CREP Field Support Services grant with IDDA. Under the grant, IDDA provides staff support to the CREP program. Services include program outreach, quality control and engineering support. It is anticipated under the grant renewal that support for the Ag Drainage Well Program will also be provided.

IDDA originally obtained the grant in 2006. It was a three year grant that had an option for three one year renewals. Since, the full six years of the grant had run its course, the state was obligated to rebid it. The state issued the new request for proposal in late September. IDDA submitted its proposal on October 15 and received notice on October 22 that the state intended to issue the contract to IDDA.

A contract has not yet been signed but it is anticipated that the paperwork will be completed by December 1st.

According to Harlan Hansen, IDDA President, support for the CREP program is a great fit for IDDA. “The CREP program uses wetlands placed in strategic locations to reduce nitrate in tile water. That is a goal that we very much support as an organization. The income from the grant is also a huge help to us financially. It has meant that we have been able to keep IDDA running as a viable organization without a dues increase in seven years.”

John Torbert, IDDA executive director said the transition to the new grant should be seamless. “We have been doing this for six years so we have the people, knowledge and systems in place to keep moving forward. I am very appreciative that the state put their trust in us once again.”

Bylaws Amendment to be voted at Annual Meeting

At the IDDA annual meeting on Friday, December 7, IDDA membership will be asked to approve the following change to the IDDA bylaws (language to be removed is lined through and language to be added is underlined);

SECTION III – SUBORDINATE OFFICERS AND AGENTS – The Board of Directors may appoint an Executive Director and such other officer or agents as it may deem necessary or advisable from time to time, to hold office for such period as approved, and have such authority and perform such duties as the Board of Directors from time to time may determine. The Board of Directors may delegate to any officer or agent the power to appoint any such subordinate officers or agents and to prescribe their respective terms of office, authorities and duties. The employment of an Executive Director shall be by written employment agreement and the duties of such Executive Director will be enumerated in a written job description.

The Board, at its ~~first meeting of each calendar year~~

annual budget discussion and approval for the next fiscal year shall, upon the recommendation of the executive director, ~~appoint~~ designate an ~~secretary/ treasurer external public accounting firm.~~ The ~~secretary/treasurer~~ public accounting firm shall have the responsibility for maintaining all of the financial and investment records of the corporation, processing payroll, filing the appropriate tax forms ~~and keeping minutes of all Board of Directors meetings,~~ and other such duties as may be required by the Executive Director or the Board of Directors.

Background–This amendment does two things. First, it moves the decision on the handling of IDDA’s financial records to be consistent with the July 1st start of the fiscal year and makes it part of the budgeting process. Secondly, it specifies that all IDDA financial responsibilities will be handled by an external public accounting firm. The IDDA Board of Directors has approved this change for presentation to the membership. This publication and notice complies with Article IX of the bylaws - Amendments.

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