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Welcome our newest member

Musselman Land Improvement, Inc.

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ADMC NEWSLETTER

Agricultural Drainage Management Coalition

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Executive Director's Report

This has been a good year for Ag Drainage in many ways. The Midwest weather this growing season has certainly helped show the value of a good drainage system. Corn yield differences of 100 bu/A in neighboring fields comparing pattern-tiled to no tile 40-acre tracts have been reported here in central Illinois. The weather also cooperated this fall in many areas to allow early harvest and field work, so that there was a good opportunity to install new drainage systems.



Managed drainage is getting a lot of attention in the farm press for its potential value in both improving yields and reducing losses of nitrates into downstream water bodies. More stories will be coming this winter. Preliminary look at ADMC's 3-year CIG project results indicate some positive messages to come from that work as well. We hope to do some follow-up work to add to those results.

USDA-NRCS, USEPA, and related state agencies and other organizations are taking a more serious look at agricultural drainage management as they formulate their programs for the coming years. So far, most of that is positive for drainage and for agriculture. Over the years we have worked to install improved drainage systems to get water off the fields fast enough to reduce water damage to crops. That still remains a high priority and there are many acres yet to be drained. More recently, the ability to manage that drainage through various control structures has drawn more attention, and will likely be more of a factor as we look ahead.

Ag drainage articles in national press, such as New York Times and Wall Street Journal, have brought more public attention to drainage issues. I think we can do a lot to build on that attention and interest to make it a positive force for our programs. ADMC is working with government agencies at the state and national levels to provide facts on the new research and technology developments. We are also working with the farm press to help get the word out on the value of improved drainage systems and of managed drainage systems. We are developing

CIG Executive Summary

The field evaluation of drainage water management (DWM) for Midwestern row crop agriculture was completed by the Agricultural Drainage Management Coalition and its partners from the five states of Iowa, Minnesota, Illinois, Indiana and Ohio. The project entailed four paired field evaluations in each of the five states. The partners on this project included Purdue University, Iowa State University, Ohio State University, USDA-Agricultural Research Service, Minnesota Department of Agriculture, University of Minnesota and University of Illinois.

Drainage water management uses water control structures to raise the effective height of the water table, thereby managing the amount of drainage from a field. DWM is a practice that shows great promise for reducing nitrate loading in the Midwest while maintaining drainage intensity during critical periods of the crop production cycle.

This project demonstrated the impact of managing water table depths to reduce nutrient transport from subsurface drains during

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training modules to help bring contractors, NRCS, and others up to date with the latest information, to teach farmers the value to be gained from managed drainage, and to show the general public how we are working to reduce negative impact on water resources. ADMC has an important role to play in getting the word out!

Over the winter months, I plan to attend as many of the local meetings of LICA and other groups as I can to get better acquainted with the drainage industry and those of you who make it work. I want to get your input and guidance on how ADMC can best serve your needs, and get your ideas on research, demonstrations, and training that we can provide to support your business.

Best wishes for the holidays. I look forward to meeting with you this winter.

Merry Christmas-

Harold F. Reetz, Jr.

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U.S. House of Representatives
Committee on Agriculture
 Room 1301, Longworth House Office Building
 Washington, DC 20515-6001

October 5, 2010

The Honorable Tom Vilsack
 Secretary
 U.S. Department of Agriculture
 1400 Independence Ave., SW
 Washington, D.C. 20250

Dear Secretary Vilsack:

I write today to express my support for USDA's strong conservation partnership with our nation's farmers and ranchers. The Department has a long and proud record of conserving natural resources on private lands by providing assistance through incentive based agriculture conservation programs. It is USDA's understanding and approach to conservation that has resulted in positive solutions that improve our environment.

Critical to USDA's on the ground success is the recognition that agriculture producers are the first conservationists. Farmers know that conservation planning can be designed to benefit natural resources, resulting in productive soils and a healthy environment. This basic understanding coupled with USDA's on the ground financial and technical assistance has led to a strong federal commitment to provide farmers the necessary assistance to address local resource concerns. This common sense and cooperative approach has led to a successful partnership with farmers and ranchers that other agencies should strive to duplicate as opposed to a punitive method most choose.

A key component to making the partnership work is ensuring the funds are available to deliver and implement agriculture conservation programs. It is still too soon to tell how conservation program funding in the 2012 Farm Bill will differ from current mandatory levels or how discretionary spending will be impacted, but the fiscal situation facing this country is serious and we are going to have to live within the projected budget. Given this reality, we need to make certain that our farm bill conservation programs are meeting the needs of producers, and that USDA with its partners, remains equipped to deliver financial and technical assistance. Now more than ever it will be critical USDA maintain its proven

Science and technology are fundamental to good conservation. USDA must be current with farm management tools and practices if we want to come together to make further gains more efficiently. Drainage water management, buffers, and strategic wetland siting are important conservation practices when combined with modern technologies. The water, soil, and nutrient conservation benefits as well as potential crop yield increases can be significant too. Unfortunately, practices such as these are often overlooked due to outdated and wrong information about the technology. Put simply, management practices that include tiling can be an important part of a farmer or landowner's toolbox, and NRCS and FSA should review their handbooks and guidance documents to ensure the best information is being used to assist landowners with their natural resource decisions.

As you continue to pursue efforts to help farmers and ranchers protect our natural resources and maintain the productive capacity of their land within a tight budget environment, I hope that you will ensure that all technology and management practices are considered.

Thank you for your attention to this matter.

Sincerely,

Collin C. Peterson
 Chairman

CCP/nd

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Summary of Natural Resources Conservation Service (NRCS) Briefing December 14, 2010 on the Mississippi River Basin Healthy Watersheds Initiative (MRBI)

1. NRCS is making a commitment to training NRCS staff and Technical Service Providers (TSP) personnel about the use of drainage water management techniques to address nitrogen loss in the upper Midwest. Specifically the briefing noted the Conservation Effects Assessment Program (CEAP) had identified N loss from agriculture as a significant remaining conservation challenge.

2. A Draft Recommendation was made to the Chief (Dave White) on December 13 for action on drainage water management. The lead developing this was Bill Gradle – State Conservationist Illinois. The initiative is under internal review currently. Senior NRCS staff indicated there will be opportunity for industry to comment and participate in the further development of the initiative.

Among the other issues covered by the meeting were:

Placing a priority on monitoring of outcomes from the MRBI and CIG projects.

Dana York is leading a team on assessing performance.

Specifically there was a substantial discussion on farmer resistance to monitoring as part of the MRBI initiative. Among the key points of farmer resistance are:

Monitoring costs are only partially cost shared (50% to 75% max)

Other federal funds can not be used to match the NRCS funds

The landowner is responsible for any tax liability

The landowner has to be the party to receive the payments and then has to make arrangements to either do the monitoring or establish an agreement with a third party (and monitoring is not their gig)

The potential exposure for the landowner for any information that may be generated

The new round of both CIG and MRBI funds were disused – and RFPS are on the NRCS web page

For CIG see NRCS.USDA.Gov/Technical/cig/index.html

The new NRCS lead for the MRBI is Deena Wheby out of the Kentucky office. Her e-mail address is deena.Wheby@ky.usda.gov

NRCS is planning on operating MRBI through FY 2013.

The plan is to make up to \$80 Mill year available. To date it is getting spent out at a much lower rate than initially hoped. The program is being revised (ie earlier announcement dates etc) to help get on spending and time track.

Help Us Help America!

Please support clean water projects and practices with your tax deductible contribution today.

Together we will make a difference...Happy New Year!

A public/private partnership improving America's water quality, wildlife habitat, and agronomics through drainage water management.

ADMC
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the fallow season and to reduce water deficit stress during the growing season. Changing the stop logs in the DWM control structure during the year is subject to the timing of the spring field operations and completion of fall field work. NRCS Practice 554 specifies a 30-day window for changes in the water table levels. All of the field evaluations were operated like the producers' normal farming operations with the exception of managing the control structures in the drainage systems.

The 20 field evaluations included data on nutrient reductions, crop yields, profitability, and timing of drainage water management, precipitation and drainage outflows from each field plot. The results from the different plots helped highlight the regional differences from state to state and, in some cases, fields within a state.

The state tables in this report list precipitation, drainage outflows, nutrient reductions and crop yields. Profitability of DWM is hard to quantify due to the inconsistency of yield information. However, a table of estimated installation costs and an equation to estimate annualized costs of implementation are included in this document.

The variable that could not be controlled in this project was precipitation – when it was received and the amount received. Precipitation was compared to the 30-year average at each location.

All of the field demonstration sites were retrofits with the exception of the Windom site in Minnesota which was designed specifically for drainage water management. Using retrofit drainage systems was somewhat challenging because the area of DWM impact was not always maximized and the tile installa-

tion maps were not always accurate. Some of the sites do not have any nutrient or yield data for 2007 year because their systems were being installed that year.

In reviewing the data from the individual state charts, it is apparent that reductions in nitrate outflow of 20 to 60% can be achieved, depending on the amount of precipitation received and when it occurs. There appears to be greater reductions in the southern part of the Corn Belt vs. the northern Corn Belt. This may be due to the frozen soils in the northern Corn Belt during the fallow season.

To implement this practice, a producer or landowner needs a good set of topographic maps in 6-inch contours to develop a plan for DWM. Many producers are already collecting this information through the use of GPS equipment on their tractors, combines or field sprayers. Sometimes this information can be supplied by a custom applicator of agricultural inputs or a drainage contractor with GPS-enabled equipment. With a good topo map, field map, existing tile maps and soils information, a technical service provider or drainage contractor trained in DWM design could produce a DWM system for the producer or landowner.

Recommendations

It is feasible to retrofit existing drainage systems up to 0.5% grade. Estimates of drained acres that will accommodate DWM could exceed 10 million acres or more.

If DWM designs were incorporated into the designs of new drainage systems or drainage systems that are being replaced because they are deteriorating, a greater percentage of each field could be utilized. By placing the drainage mains up the slope and installing the lateral drains across the slope, and using

new, high-technology in-ground controls to manage the water table, DWM could be installed on grades up to 2%. This would increase the estimated drained acreage by an additional 50 million acres. The estimated cost of designing and installing a new system for DWM is 10% or less of the total drainage project cost. The economics of including upgrades to new system on a per-unit cost of nitrate reduction should be included in cost-share funding.

The size of the main dictates the coefficient of a drainage system, but the lateral spacing of the drainage pipes determine the level of the water table. One area of concern is the perched water table halfway between the lateral drainage lines. The perched water table can be reduced by using a smaller diameter pipe spaced closed together without changing the drainage coefficient. This would create more uniformity and allow producers to change the control settings to as much as 10 days prior to or after field operations, thereby reducing the total amount of outflows.

Though DWM can be used as a stand alone practice, producers could use it as one of a suite of drainage management practices that can also include constructed or natural wetlands, saturated buffers, bio-reactors and crop production practices that can reduce nutrients and flows from the landscape. Many of these practices can be installed at the edges of fields to reduce impacts on cropping.

In order to provide the technical support needed to assist landowners and producers, a network of private and public trained personnel needs to be a high priority for implementation.

ADMC's Conclusions

The three-year DWM demonstration program yielded important insight on the environmental benefits and the practicalities of controlling drainage, as well as outreach efforts that made more than 1 million impressions on farmers, drainage experts and members of the environmental community through farm forums, outreach and publications. Even challenges encountered in quantifying yield effects provided important perspective on future study and observation of the practice.

View full CIG report summary online at www.admcoalition.com.



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***A Public / Private Partnership
Improving America's Water
Quality, Wildlife Habitat and
Agronomics Through Drainage
Water Management***

2010 Upcoming Events...

January 3-5th, 2011
Ohio LICA Winter Convention
Columbus, OH

January 6-7th, 2011
Wisconsin LICA Winter Convention
Crowne Plaza - Madison, WI

January 7-8th, 2011
Missouri LICA Winter Convention
Ramada Inn - St. Joseph, MO

January 9-11th, 2011
Iowa LICA Winter Convention
Holiday Inn Airport - Des Moines, IA

January 10-12th, 2011
South Dakota LICA Winter Convention
Deadwood, SD

January 13-17th, 2011
Illinois LICA Winter Convention
Doubletree Hotel - Bloomington, IL

January 16-18th, 2011
Kansas LICA Winter Convention
Clarion Hotel - Manhattan, KS

January 16-19th, 2011
Minnesota LICA Winter Convention
Best Western - North Mankato, MN

January 18-20th, 2011
Nebraska LICA Winter Convention
Holiday Inn & Convention Center - Kearney, NE

January 27-28th, 2011
Indiana LICA Winter Convention
Marriott East - Indianapolis, IN

*Harold, Leonard, Jeanne and the
ADMC Board appreciate your support
during this past year and wish you all a
very Merry Christmas and a great 2011!*