NEW YORK ASSOCIATION OF CONSERVATION DISTRICTS, INC.

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FYI…

NYACD NEWSLETTER • MAY 2007

NEW FUNDS - PUBLIC MEETINGS ANNOUNCED

In 2006, NYACD and districts were able to secure passage of a law through the New York State Legislature to get new funds to the state's 58 soil and water conservation districts. Within the law was a requirement for the creation of new regulations. These regulations will create the detailed formula of how these new funds will be allocated.

The NYS Soil and Water Conservation Committee has developed a draft set of regulations and a grid of specific performance measures. The next step in getting these in place is a set of public meetings.

NYACD is sponsoring these official public meetings and urges you to come. Four meetings are being arranged. Dates and times have been set. General locations have been set. Specific locations are still being worked out. Please select the meeting closest to you and mark your calendar. We will get detailed location information out to you as soon as it is finalized.

May 30	Wednesday	6 to 8 PM	Batavia
May 31	Thursday	1 to 3 PM	Auburn
June 6	Wednesday	1 to 3 PM	Dutchess County
June 7	Thursday	6 to 8 PM	North Country

These new regulations will influence what work your district staff does and will incentivize greater involvement by your district directors. For more details, please see the article on page three.

Mark your calendars, and plan to attend. It is important that a good quantity of district directors particularly attend these meetings. This will insure that the regulations are developed the way you think they should be and will show support for these new funds.

NYACD MISSION:

The NYACD provides leadership in the wise use of soil, water and related natural resources. This direction is provided through programs that support member Soil and Water Conservation District's scientific, marketing/ outreach and financial work and that encourage networking and building alliances with outside groups that have related interests.

INSIDE THIS ISSUE:

WE NEED YOUR HELP

As you know, NYACD is hosting the hospitality room at the Canon Envirothon this year. We need you to volunteer your time and to solicit donations of food and beverages. The time is drawing near. This national competition will be held in Geneva, from July 29 through August 3, 2007, on the campus of Hobart and William Smith Colleges.

The Canon Envirothon is North America's largest high school environmental education competition. This year, teams from 44 States and 8 Canadian Provinces will take part. The teams that will arrive in Geneva will be those that took top place in their State and Provincial competitions.

Each year teams compete to solve problems in four categories: soils/land use, aquatic ecology, forestry & wildlife, as well as a topic of current interest. Top-scoring team members are awarded scholarships that can be used at the college or trade school of their choice.

NYACD members will set up, stock and work in the hospitality room. This room will be available to Canon executive committee members, advisors and volunteers. It will be a place they can relax and get a "taste" of New York. We will need to decorate the room and offer beverages and snacks. We hope to showcase New York products. Donations can include wine, beer, juice, coffee, tea, soda, water, cheese, fruits, vegetables, chips, pretzels, etc. Please refer to the March issue of FYI for a donation form, or contact Gregg Bell at NYACD@nycap.rr.com.

We also need your time at the event. If you or any of your friends or relatives can spend some time helping out at the hospitality room, please contact me. My email address is mgoodwi1@rochester.rr.com (that's a number one, not a letter l in the address); or call 585-398-2817 evenings or weekends.

The room is scheduled to be open during the following dates and times:

Saturday, July 28, set up; **Sunday, July 29**, set up starting 7 AM, serving 1:30 PM to 7 PM and 10 PM to midnight; **Monday, July 30**, set up and organize; **Tuesday, July 31**, serving 7 AM to 4 PM and 9:30 PM to midnight; **Wednesday, August 1**, serving 9 PM to midnight; **Thursday, August 2**, serving 8 AM to midnight; and **Friday, August 3**, serving 7:30 AM to noon and 9 PM to midnight.

GRAZE-A-PALOOZA ROCKS

In a sold out concert-like setting, New York grass-based agriculture shines through.

The irony of current events provided plenty of backdrops for the passion back to the future of pasture. The rising price of farm inputs, the children of the corn syrup debacle, the pet food scare and the loss of American Farm Families from the landscape prompted Troy Bishopp, the grass whisperer, to declare "be at one with the grass" for the future of Northeast agriculture.

For more information:

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Conservation District Program Specialist (Grazing)
Madison Co. Soil and Water District
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Troy.Bishopp@ny.nacdnet.net

Some of the Graze-a-Palooza organizing committee: Phil Metzger, Chanda Lindsay, Jean Burr, Troy Bishopp, Karen Sullivan, and Bill Paddock

DRAFT RULES & REGULATIONS FOR NEW FUNDS

On page one of this issue of FYI you will find an announcement about a series of four public informational meetings. This article is to present some background.

These meetings in four regions of the state are designed to solicit your thoughts on the draft rules and regulations of how the new funds will be allocated to the state's 58 soil and water conservation districts. We are not including the actual draft formula here in this issue of the newsletter because they have not been approved yet. That review and decision must be made by the NYS Soil and Water Conservation Committee. It will happen at their meeting on May 15 in Batavia. We will send out what they approve to those for whom we have e-mail addresses when we receive it. We will also post it on our web site (www.NYACD.org). You can check for it there after that meeting.

However, while the draft has yet to be approved, there was a long meeting on April 30 in Lafayette with staff members from the State Committee and a couple of districts, Brad Rogers from our Board, me and others. The entire focus of the meeting was a line-by-line review of this proposal. A grid of performance measures was the core topic. It displays four sets of measures, each with standards for 2006, 2007, and 2008. These measures cover:

- extent and sufficiency of district Board activity
- district reporting & outreach activities
- leveraging additional funds & fostering partnerships, and
- delivery of state natural resource conservation programs.

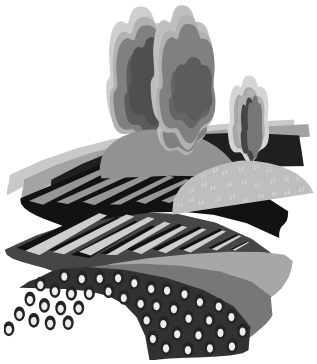
One of the goals of this process is to increase the training and involvement of district directors in their roles as public officials. The standards will start out low and increase over the initial years. How the details of this chart are worked out will impact what you and your district do in upcoming years. Because of this, you are urged to come to the meeting nearest you and then to submit written comments. This participation will influence the final rules and regulations.

If this process seems rushed, it is. Yes, it is true that we are announcing meetings without specific locations. It is also true that the topic of the meetings has also not been released yet. As an explanation of this process, it is being done this way in order to finalize the rules as soon as possible which will get these new funds into your district as soon as possible.

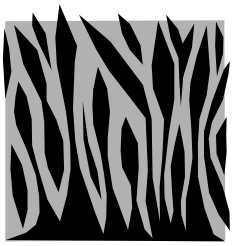
By Gregory Bell, Executive Director NYACD

AMBER WAVES

A compilation of recent articles on agricultural data and analysis of key issues affecting Farm Bill legislation and policy review has been posted on line by the Economic Research Service of the U.S. Department of Agriculture. It is at www.ers.usda.gov/AW. Some of the articles deal with revenue insurance, fruit and vegetable planting restrictions, food stamps, shifts in agri-environmental policy, and environmental credit trading.



GROWING A BIO-BASED FUTURE



A focus on renewable fuels could bring energy independence, spur economic development, and improve environmental quality.

The following excerpts from "Growing a Bio-based Future", by Jay Wrolstad, are reprinted from the Cornell Engineering Magazine, with the permission of the author.

In an unassuming lab tucked behind Riley-Robb Hall sits a round bale of cut grass. It looks just like hay harvested from the fields surrounding Ithaca, but this grass wasn't grown to feed livestock; it was grown to feed the global economy's insatiable appetite for energy.

This is switchgrass. With roughly the same energy content as wood, it has great potential as a source of sustainable fuel. Professor Larry P. Walker is conducting experiments on this and other common perennial grasses to perfect a process in which certain enzymes convert carbohydrates like cellulose into sugars that can be transformed into ethanol fuel. And it is just one of the "biomass" materials being tested by Walker and others at Cornell.

Biomass is any organic material containing carbon, nitrogen, and oxygen. That includes most plant life, organic waste, and solid waste. "Looking ahead, we need these resources in place to support sustainable human development," says Walker.

Walker is among those leading a broad-based charge to change the way we think about and produce the power needed to light and heat our homes, and run our cars. "Biomass is the only direct replacement liquid fuel that is imminent," says Walker, a professor of biological and environmental engineering. "It will play a large role in shaping our future, with agriculture becoming a major supplier of energy and industrial chemicals."

Walker initially delved into the fundamental processes of creating energy from biomass during the oil embargo-induced shortages of the 1970s, but when the long lines at the pumps dwindled, so did funding for renewable energy research. Today, however, increasingly fierce global competition for energy, alarm over global warming, and concern for agricultural communities have combined to rekindle interest in biomass.

Making biomass commercially feasible, Walker contends, requires new tools and methods to process organic material more efficiently, and on a massive scale. The corn-to-ethanol conversion process has been the most successful effort to date, he notes, but corn may not be the best option. It requires major inputs of water for irrigation, and of fertilizers and pesticides, which, ironically, are derived from oil. The focus on corn diverts attention from other potential energy crops that are more sustainable in different ecosystems across the country. Also, farmers worry that using corn for ethanol production may cause feed shortages and higher costs.

"One approach is to use molecular biology to engineer microorganisms that can achieve both cellulose hydrolysis and fermentation of the six- and five-carbon sugars that are derived from plant carbohydrates. Another approach is to do what nature tends to do and use a mixture of 'bugs' to process the sugars—and this is an alternative paradigm that biofuels researchers need to develop," Walker says.

In the Riley-Robb labs, researchers are developing enzymatic and microbial processes to speed the sugar-to-ethanol conversion. They are isolating bacteria from compost reactors and using DNA analysis and high throughput screening to identify those that show the most promise as biocatalysts.

Another biomass material being studied at Cornell is organic waste. Again using enzymes, scientists can produce hydrogen, biogas, and organic acids from such material. Norman Scott, professor of biological and environmental engineering, explains: "Our work complements that being done by Professor Walker by studying the anaerobic digestion of waste, such as food scraps and animal manure, to create biogas."

Scott envisions community-based biogas plants relying on a steady supply of manure from farms and other organic wastes from the community. "With the participation of five to 10 farms, and their 20,000 cows, we could convert enough gas to significantly supplement the public natural gas supply," Scott says. *(cont. Page 6)*

THE GREAT LAKES WATER WARS.

Peter Annin. Island Press, Washington, DC. ISBN 1-55963-087-6

I started out to skim Peter Annin's book, determine what to say, and decide how to write the review. I had no trouble becoming completely engrossed at the start of the *Author's Note* and *Prologue*, and read the whole thing. Cover to cover. I do not need to abridge all its contents in great detail, nor could I begin to accomplish that task as eloquently, chronologically, and thoroughly as does the author anyway. What's more, the stories presented are fascinating and rapidly ensnare the reader. It will be of value to active professionals, students, politicians, NGO participants, and elected officials as well as to residents of the Great Lakes Basin, and to those who think they can tap into its abundant waters. What's more, it is informative and fun to read.

The context of the book is contained in the author's note, in which he states that "the Great Lakes region is entering an era of unparalleled water tension" caused by exotic invasive species and water pollution against a background of a burgeoning local and even world-wide human population with thirsty eyes on its supply, "the region's most important and precious natural resource." Annin takes the time to review clearly pertinent western hemispheric and global geography and history of the Great Lakes Basin, necessary details of water law and the overriding role of federal legislation, notably the Water Resources Development Act and the Constitutional control over compact processes. In the process, he provides the necessary context of this international/interstate water resource so that the reader is apprised of its essential social, legal, organizational, and physical roles, including the complex interplay between and natural and artificial confounding of surface and ground water resources.

Part I, Hope and Hopelessness, details the geographical and hydrological context of the basin and a summary of the region's fundamental problems, challenges, and opportunities. A review of the Aral Sea is presented as a parallel to and contrast with the Great Lakes. Context is included in the form of the potential threat (or promise?) of global climate change to this basin, which currently contains one-fifth of the Planet's fresh water supply.

Each of the six chapters in ***Part II, Battle Lines and Skirmishes***, reviews a water war presented in appropriate (and necessary) hydrological, historical, geographical, economic, and political context. These are in no way tedious case studies: they are personal, wondrous, inexplicable, and sometimes tragic, frustrating, and outrageous situations, usually appearing quite understandable and reasonable.

The concluding three chapters of ***Part III, New Rules of Engagement*** are as exciting to read as a top-of-the-best-seller-list novel. In addition, any students of political science and/or water resource management will find wonderful examples of how to and not to participate in the incredible mix of real people and problems who wade, assault, or surf the waves of activity as a Great Lakes Compact is constructed out of the remains of previous accords. The situation – still in flux – interacts with and derives from economics, party politics, international customs, climate, and approaches to government in the two nations and political parties in the eight states, as well as the individual players. Annin ably keeps them all straight: often the reader understands why a particular case study was included earlier as its relevance to a later situation becomes apparent. There is continuing drama in the construction of an acceptable, workable, fair, and constructively operational framework for the beneficial management of the basin's resources. The book takes the reader up to the December 2005 *Annex Implementing Agreements*, and while "the accomplishment was notable, it was only the halfway mark." Jurisdiction by jurisdiction, Annin concludes the history with a status report and the compact's "chances." Readers will be able at this point to analyze and participate more intelligently in shaping the future of the basin. For anyone so involved, this is a must read.

"The time has come," states Annin in the brief ***Epilogue***, "for the Great Lakes region to become a global leader in water conservation." That will require looking beyond the local problems and opportunities inherent in the basin that contains eighteen percent of Earth's fresh water and that is home to about forty million people in two countries and eight States with different origins, histories, industries, occupations, economic interests, and dreams. Even bottled water, which some would like to – and do – export in spite of restrictions on out-of-basin diversions. Read this book and find out the difference, Great Lakes style!

Peter E. Black, Distinguished Teaching Professor
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October 26, 2006

GROWING A BIO-BASED FUTURE (CONTINUED FROM PAGE 4)

Before such biorefineries are built to process organic waste on a large scale, there are issues to clarify, such as how the waste will be transported to the refinery, whether the farmer or the fuel producer owns the raw product, and how carbon and emission credits might be awarded. The decisions made on these points will help to identify incentives for farmers to participate in a sustainable energy strategy.

Ruth Richardson, an assistant professor of civil and environmental engineering who is collaborating with Scott in harnessing energy from dairy waste, is confident that microbial fuel cells can be developed using bacteria to process the material and turn it into electricity. "Using a diversity of processes will help optimize the amount of energy obtained from biomass material, and that will involve working with soil experts, farmers, and the agriculture industry," she says.

The good news is that our elected officials have responded by funding the establishment of regional hubs for research collaboration under the federal Sun Grant Initiative. Cornell is one of five centers of excellence set up across the United States through the initiative, with the charge to leverage agriculture resources as a supply of both energy and industrial chemicals.

As the lead university for the Northeast Sun Grant Institute of Excellence, Cornell received a four-year, $6-million grant from the U.S. Department of Transportation, with the money spread among research projects from Maine to Michigan.

"We need a regional response to the opportunities biomass presents," says Walker, director of the Northeast Sun Grant Institute of Excellence. "Land grant institutions like Cornell have always played a role in addressing rural development challenges, and we are set up with strong life sciences, agricultural, and engineering capacities. For biofuels to take off, you need a strong linkage between those sectors."

Each center controls 25 percent of its funding, Walker explains, while the rest pays for competitive grants that support renewable energy projects. At Cornell, the grants program launched this fall was designed by a steering committee comprising agriculture experiment stations directors, extension directors, and stakeholders like farmers and nonprofit groups.

The interdisciplinary collaboration that has marked Walker's career is essential to the Sun Grant effort. For example, bringing plant breeders to the table is critical, Walker says, in creating sustainable crops. "How much perennial grass can we produce with the best yields and sustainable practices on farms in this part of the country?" he asks. "We need to change our mindset about agriculture. For most farmers it's, 'Tell me what to produce and I'll produce it,' but there are crop storage and handling issues associated with processing biomass. Also, any ethanol producer will want assurances of long-term availability and cost-competitive pricing for biomass feedstocks. Thus, a strategic partnership must evolve between feedstock and ethanol producers."

Any comprehensive energy strategy must also include discussion of erecting massive biorefineries that pull in material from a large region in a centralized production system, or building multiple, smaller plants that serve local communities.

He cites New York State's $25-million biorefinery pilot-plant initiative. A consortium of private businesses and researchers, including Walker, was recently selected to build one of two plants and it will be a proving ground for technology developed at Cornell. Further state involvement can be seen in a facility for students evaluating industrial biotechnology systems, and the investment of $750,000 that the New York State Office of Science, Technology and Academic Research made in Walker's biofuels/industrial biotechnology research program. Industry is taking notice, too, with oil giant British Petroleum earmarking $500 million for biomass energy centers. "Companies like BP and Chevron realize that we must diversify our energy system," Walker says.

"The pleasure for me is that we can do exciting research through the Sun Grant Initiative and apply what we learn," he adds. "We can play a leadership role in national and international research. We are training a new generation of scientists that will take sustainable energy to the next level."

HELP YOUR FARM GROW!

AEM's Simple Worksheets Can Help You Reduce Environmental Risks

Conducting an Agricultural Environmental Management (AEM) Risk Assessment is a quick and easy way to take a comprehensive look at your farm's impact on natural resources and acquire information for long-term business planning. The assessment can help you document your environmental stewardship, prioritize areas presenting risk, identify opportunities to save money, and locate available resources to address potential concerns.

You can schedule a free, confidential assessment with your County Soil and Water Conservation District. The first step will be completing an AEM Questionnaire and the AEM Watershed Site Evaluation Worksheet, with the help of conservation agency staff. The Watershed Site Evaluation Worksheet looks at your farm's specific location and site characteristics to determine which of the AEM Worksheets should be completed in order to focus on the water quality issues that are a priority for your farm.

Virtually identical farm operations in different locations might have entirely different environmental concerns. Perhaps your farmland drains to a stream with high sediment levels, or into a lake used as a drinking water supply where pathogens such as Giardia or Cryptosporidium are a concern. Perhaps it sits above an underground aquifer that already has elevated nitrogen levels. In each case, the assessment is tailored to focus on issues and opportunities important to your farm, and minimize the farm's impact on water quality.

The following are some of the AEM 'Core' Worksheets that may benefit your farm operation:

Manure Management - This worksheet looks at practices to maximize the benefits of manure as a crop nutrient source and soil conditioner, while minimizing the risk of pathogens, nutrients and organic material entering water bodies or contaminating water supplies. The worksheet also considers maintaining good neighbor relations and avoiding odor complaints.

Farmstead Water Supply - Determine if your water supply or neighboring wells are at risk for contamination. This worksheet evaluates how safe your well, or those around you are from being impacted by your farm activities.

Barnyards - Properly managing the concentrated nutrients in the barnyard reduces pollution risks, minimizes odor complaints and promotes livestock health. This worksheet addresses barnyard runoff and keeping clean water clean by diverting it away from the barnyard and other heavy use areas.

Stream and Floodplain Management - Protecting stream corridors not only improves habitat for fish and wildlife but also clearly demonstrates your concern for the environment to your neighbors and your community. This worksheet documents your efforts to protect nearby waters and identifies the many sources of funding available to promote stream health.

Pasture Management - Let your cows do the work! Well managed pasture can produce a high quality feed that can be very cost effective. This worksheet examines planning and management decisions that promote quality feed production, reduce production costs, prevent soil erosion and the risk of water quality degradation, while enhancing wildlife habitat.

Soil Management - Preventing erosion and enhancing soil quality makes good economic and environmental sense. This worksheet can help you determine if you have excessive erosion which can reduce yields, degrade your soil resources, and increase potential water pollution.

Other worksheet topics include Petroleum Products Storage and Livestock Odor Management. There is also an Agriculture and the Community Worksheet, which addresses neighbor relations and can help add up the benefits that your farm provides to your community.

In addition to these Core Worksheets, there are specific worksheets tailored to Dairies, Greenhouse Operations, Vineyards and Horse Farms. All the AEM Worksheets are available on the web at: www.nys-soilandwater.org/aem/techtools.html

If you would like to schedule a free, confidential AEM Risk Assessment for your farm call your County Soil and Water Conservation District. For a listing of local contacts visit: www.nys-soilandwater.org.

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UPCOMING EVENTS

- **2007 New York State Envirothon,** May 23-24, 2007, Cobleskill, NY
- **Four-Way Partnership Meeting**, May 23, 2007, SUNY Cobleskill
- **NYACD Board Meeting,** May 24, 2007, Cobleskill, NY
- **Performance Measure Informational Meetings**

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- **2007 Canon Envirothon,** July 29– August 4, 2007, Hobart and William Smith Colleges, Geneva, NY

June FYI—Deadline for Articles —May 31, 2007.

Please send articles to Maggie Atkins at matkins@frontiernet.net; Phone: 585-396-9973; Fax: 585-554-4077. **Thanks.**