



HARRY R. HUGHES CENTER FOR  
AGRO-ECOLOGY, INC.

# Working Landscapes



*Promoting Viable Farms and Forests*

Summer 2008



Courtesy of Dave Harp

## **Celebration, Maryland-Style**

*By Russ Brinsfield, Executive Director*

**W**hat better way to celebrate the work of the Hughes Center for Agro-Ecology than to gather with friends and enjoy the bounty of Maryland farms and vineyards?

The Center's Board of Directors invites you to join us on Thursday, October 2, from 6 to 9 p.m. for an after-hours cocktail reception among the rolling hills of Boordy Vineyards in Baltimore County. Board president Harry Hughes and Baltimore County farmers Stephen Weber and Jack Gurley will be among your hosts as you soak in the roots of Maryland agriculture in a nineteenth-century barn featuring fieldstone walls, a high beamed ceiling, and large oak barrels.

On the table, you'll find some of Maryland's best fare prepared by Panache Fine Catering of Towson. Owner Emil Sueck has roots in rural Maryland and is committed to supporting Maryland farms in his work. Among the tasty offerings at Boordy will be farm-raised oysters from the Chesapeake Bay, beef and produce from Baltimore County farms, locally made artisan cheeses, and of course Boordy's award-winning selection of Maryland wines.

Since 1999, the Center has sponsored a suite of important research projects that

demonstrate how Maryland's working landscapes can be both economically viable and environmentally sound. But most importantly, the Center then takes these research findings to the audiences best positioned to use them: Maryland's farmers, foresters, state legislators, and local government officials. In this newsletter alone, you'll read how the Center has stepped in to connect Maryland farmers with next-generation biofuels research and to help public officials in Western Maryland find sensible solutions to local problems. You'll also see how the Center participated in an exchange that linked Southern Maryland farmers to the international agricultural community.

Proceeds from the October event will continue this work, by supporting the Center's Harry R. Hughes Endowed Fellowship Fund. The fund will serve generations of Marylanders by bringing the best and brightest talent to bear on issues that are vital to Maryland's working landscapes. Tickets are \$100 per person, and a portion of each ticket may be tax-deductible. Many of our readers have already received invitations in the mail, but if you need tickets or additional information, please contact Nancy Nunn at 410-827-5086, ext. 110, or [nnunn@umd.edu](mailto:nnunn@umd.edu). We hope to see you there! ☀

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Read this issue online or subscribe by email. Visit [www.agroecol.umd.edu](http://www.agroecol.umd.edu)

For more information, contact the Center at (410) 827-6202 or [agroecology@umd.edu](mailto:agroecology@umd.edu)



Photo: Courtesy of Boordy Vineyards



Brett Grohsgal and Christine Bergmark, owners of Even' Star Organic Farm  
Photo: Courtesy of J. Dindinger

## Lesson Learned in Maryland

By Ali Undorf-Lay, Federated Farmers of New Zealand

*Southern Maryland farmers recently rolled out a down-home welcome for eleven farmers from Australia, New Zealand, and Canada as they traveled the globe in search of insight that may help strengthen their own agricultural communities.*

*During the stop in Maryland, the visitors learned about the challenges of changing land use and toured local farms. They also feasted on regional organic produce, attended a Mennonite auction, and sailed aboard a skipjack. Discussions with state and local agricultural leaders drew out strategies for dealing with a changing market and encroaching urban lifestyles.*

*This was the second group to visit Maryland through the Nuffield Scholarship Programs of Australia and New Zealand. The Maryland portion of the visit was coordinated by the Hughes Center for Agro-Ecology and the Southern Maryland Agricultural Development Commission.*

*Ali Undorf-Lay, from Federated Farmers of New Zealand, was among the guests. Below, she reflects on her New Zealand context and her recent experience in Maryland.*

I recently visited Maryland food producers through a Nuffield Farming Scholarship, which lets farmers experience farming on a global scale. The scholarship, and in particular my time in Maryland, has rekindled my thinking on transferable development rights and the protection of farming.

Despite rural New Zealand's strong heritage and contribution to the economy, farmers are not held up as heroes. There is very little recognition that farmers have already protected their land and that our beautiful rural landscapes are mirrors of past farming practices. There is also a strong urban belief that farmers are stewards of their land, but not the exclusive owners of it. When it comes to private assets being taken for the community's benefit, New Zealand farmers lose.

In sharp contrast, I had the feeling when traveling through Maryland that all stops are being removed to encourage and support farmers. Too often, regulators in New Zealand have ignored more creative incentive models that could achieve town planning objectives, such as Maryland's transferable development rights scheme, in favor of rules.

Maryland is also an inspiring example of how food production can work well alongside environmental protection. I enjoyed seeing Richard Pelz and the

Circle C Oyster Ranch and learning that not only was he making money but, in the process of farming the shellfish, the water quality was improving.

In New Zealand, the Resource Management Act is at the heart of both environmental protection efforts and problems for farmers. Farmers initially heralded the act as a "one-stop shop" for planning consents. But their enthusiasm was short-lived, as anti-farming groups quickly captured the process and began using the law to control land use practices.

The act's philosophy is public participation in local government decision-making in New Zealand. Anybody can now have a say on how farmland, waterways, and natural landscapes can be used and developed. Urban citizens now expect to have a say in how a farmer uses his or her land.

This has resulted in a clash of views. Many urban people believe that farming practices should be regulated and that farmers are not to be trusted to manage natural or scenic areas. Environmental groups have focused on preserving the rural landscape as it is and stopping land-use intensification, so farmers are almost always at loggerheads with environmentalists. The Resource Management Act has created a litigation feast for lawyers and planning consultants, and farmers are left with a lengthy, expensive, and complicated consent process.

New Zealand farmers have a saying: "A farmer cannot be green when they farm in the red." This means that good, sustainable farming requires money and a lifestyle above subsistence living – which in turn depends on a reasonable regulatory approach to land use planning and the environment.

What stands out to me in Maryland is how the middle class is on the farmer's side. If urban New Zealand stood beside rural New Zealand, rather than aggressively demanding regulation without understanding the facts about farming, our farmers' creative talents could go into producing even better and more food for the world market.



Photo: Courtesy of J. Dindinger

### LEAD Maryland Class VI Application Now Available!

LEAD Maryland Foundation offers the premier leadership training program for the state's agricultural, natural resources, and rural communities. For more information, visit [www.leadmaryland.org](http://www.leadmaryland.org).  
Deadline for application is 10/1/08.

### Save the Date!

The Maryland Forests Association's Annual Meeting is Oct. 31 – Nov. 1 at the Loews Annapolis Hotel. For details, go to <http://mdforests.org/AM2008.htm>.



Photo: Courtesy of K. Staver

## Out of the Fields and into the Boiler: Growing and Using Switchgrass on the Eastern Shore

The University of Maryland is about to embark on a new project that will help Maryland farmers enter the developing biofuels industry in new ways — using a crop that also protects water quality in the Chesapeake Bay.

The Hughes Center for Agro-Ecology, in partnership with the University of Maryland College of Agriculture and Natural Resources, will work with the Chester River Association and several Kent and Queen Anne's County farmers over a three-year period to plant and harvest at least 100 acres of switchgrass. Washington College will then use the switchgrass to supplement heating needs on its Chestertown campus.

The Abell Foundation, Keith Campbell Foundation for the Environment, and National Fish and Wildlife Foundation have provided a combined \$500,000 in grant funding to support the three-year project.

Switchgrass is one of many plant-based feedstocks that can be used to produce biofuels and generate heat. Switchgrass is an especially intriguing option for the Chesapeake region because it is able to take up nitrogen from deep in the soil profile. This could help control or even reduce the level of nutrients polluting the Bay and its rivers.

Dr. Ken Staver, who studies the impact of various crops and field management strategies on water quality, will

lead the project. Staver believes that switchgrass holds promise for farmers, fuel, and the Bay.

"For water quality, switchgrass has shown great potential" Staver said. "For capturing solar energy, it ranks near the top. Acre for acre, it does very well compared to other crops."

The cellulose in switchgrass can be converted to sugars, which are in turn fermented and transformed into liquid fuel. Scientists are aggressively pursuing this next-generation technology, which is not yet available on a commercial scale.

In the meantime, switchgrass can be used as a solid fuel to produce heat through direct combustion, using technology that exists today.

The amount of energy produced through switchgrass, in return for the energy invested, is impressive. Staver said that the return-on-investment for corn-based ethanol is roughly 2:1, while the return on switchgrass ethanol may reach 5:1 when the technology is fully developed. At present, the highest rate of return is estimated to come from the use of switchgrass in stationary systems for heating, which has generated returns greater than 10:1.

*cont'd. on page 4.*

## Local Government Exchange Benefits Western Maryland

On Friday, May 16, the Hughes Center for Agro-Ecology helped to host the second annual Western Maryland Local Government Exchange in Hagerstown.

Co-hosted by the Local Government Exchange Steering Committee and Maryland Cooperative Extension, this year's exchange focused on the implementation of House Bill 1141. County and municipal officials and staff from five counties engaged the more than 60 participants in discussions on their experiences with the Water Resources, Priority Preservation, and Municipal Growth elements of the bill. State agency representatives were on hand to answer technical questions.

Dave Haller, town manager for Emmitsburg, said that attending the exchange was well worth his time. "The two most valuable aspects of the exchange are the quality of the information presented along with the acceptance of additional thoughts and ideas exchanged among the participants," Haller said.

After the 2007 exchange, Cheryl DeBerry, Garrett County's agricultural marketing specialist, volunteered for the 2008 steering committee. "Sharing information between local governments is vital to rural counties' success," said DeBerry. "Learning from other towns and counties' experiences helps us all make better decisions."

"I appreciated the opportunity to share my experiences compiling Frederick County's Water Resources Element," said Hilari Varnadore from the Frederick County Division of Planning. "Implementation of the 2006 land use and planning legislation has overwhelmed many local governments. I find that networking and learning from other planners' experiences helps to dispel the fears and uncertainties that tend to accompany new state mandates."

This exchange focused on Garrett, Allegany, Washington, Frederick, and Carroll Counties. If you are interested in creating an exchange program specific to your area, please contact Jonathan Kays at 410.432.2767, ext. 323, or Jennifer Dindinger at 410.827.8056, ext. 126. ☀

# Research News



Photo: Courtesy of K. Staver

## Switchgrass, cont'd.

The process requires specialized boilers, with relatively simple technology – readily available in Europe, but not in North America. The one in use at the Wye Research and Education Center during the last few years was imported from Great Britain.

“Now, with the fuel crisis, we have other people who are willing to invest in these boilers, but there’s no switchgrass out there to buy,” Staver said. “Others are interested in growing it, but there’s no one with a system that can use it. Both sides are sitting on the fence.”

The Center’s new project is designed to create a transition zone, so that growers and consumers can enter the market with some degree of a safety cushion.

“We will try to take the financial risk away for these first three years, to get over the hump of having no real market,” Staver said. “At the end of those three years, the farmers can choose what to do. They may have a valuable crop.”

In terms of research, the project will provide on-the-ground opportunities for Staver’s colleagues – Dr. John Meisinger of the U.S. Department of Agriculture and Dr. Galen Dively of the University of Maryland – to

study the nitrogen, carbon, and habitat impacts associated with large-scale switchgrass plantings.

The Chester River Association will draw on their existing relationship with the Kent County agricultural community to recruit participating farmers. “Switchgrass won’t replace corn, soy, and wheat as major crops in the Chester River watershed,” said executive director Robert Parks, “but you can plant it in the marginal lands and buffers, which many farmers are ignoring anyway, and produce a cash crop. It just makes so much sense.”

Washington College, with a commitment to reduce its carbon footprint, will be the primary user of the switchgrass crop, but Staver hopes to attract other local buyers too. Even in the three-year window of this demonstration project, the market may change.

“Switchgrass is going to be very valuable in the Northeast as long as oil prices stay high,” Staver said. “People are already looking at ways to get it pelletized, especially in Pennsylvania and New York – and then we don’t even need new infrastructure for using it. We can sell switchgrass into the pellet market. The opportunity to use these fuels is just going to get better and better.” ☀

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