

ACTION IN AGROFORESTRY

monthly newsletter of The Center for Agroforestry at the University of Missouri

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Michael Gold and Michelle Hall, editors

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2nd Annual Symposium Bring National Bioenergy Experts to Columbia

A half foot or so of snow didn't stop the 2nd Annual Agroforestry Symposium at The Center for Agroforestry Jan. 12.

Travel plans were constantly in flux, and one speaker presented via Microsoft Live Meeting, but when all was said and done, about 140 attendees were able to learn more about "Meeting Renewable Energy Goals: Role of Bioenergy Crops."

Speakers came from across the country to convene at the University of Missouri and discuss how bioenergy crops will fit into our nation's energy goals.

Dr. Shibu Jose, director of The Center for Agroforestry, said he is pleased that so many took advantage of hearing from the experts UMCA assembled on the important topic.

In addition to those attending the symposium on campus, many others were able to listen via an online, live stream of the event. Fifty-one locations across the country and world tuned in.



Some may have noticed audio problems during the first speaker, keynote Steve Flick (top photo at left). Flick's address was taped with the audio, however; those interested will soon be able to listen to it, and all the other presentations, online on The Center's Web site, <http://www.center-foragroforestry.org>



Approximately 40 posters also were available for attendees to view (see bottom photo, above), to learn more about The Center's research in a wide-range of fields, including bioenergy.

ONLINE DEGREE PROGRAM OFFICIALLY LAUNCHES

The Center for Agroforestry at the University of Missouri's new online degree program has launched.

Find out more information about admission and degree requirements here: <http://mudirect.missouri.edu/deprog/agroforestry/index.shtml>

Spring classes started Tuesday at MU.

While agroforestry has been gaining attention in the U.S. and worldwide, the need for trained professionals in agroforestry also has been expanding. The new online agroforestry degree program will help fill that void.

The M.S. with an emphasis in Agroforestry curriculum will be a 30-credit non-thesis degree through the Department of Forestry at MU. The Graduate Certificate in Agroforestry is still pending approval, but will be a 12-credit curriculum with four core courses. The M.S. in agroforestry is designed to be a flexible degree that can meet the advanced educational goals of a wide range of students.

The program was developed to provide advanced study and experience in agroforestry and related fields that are not readily available at other colleges and universities in the U.S. or abroad.

This online Master's in agroforestry degree program is designed for professionals working in natural resources around the globe who already have an undergraduate degree in a related field. In addition, the online Master's is open to all individuals holding accredited B.S. or B.A. degrees who wish to expand their breadth and depth of knowledge in the field of agroforestry.

The 12-credit certificate is intended for current students interested in supplementing their degree in a related field and for Peace Corps volunteers and military personnel who work in countries where agroforestry is integral. Similar to the full online Master's, the certificate is open to all individuals holding accredited B.S. or B.A. degrees who wish to expand their breadth and depth of knowledge in the field of agroforestry.

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IMPACT

The Center for Agroforestry has helped to establish the newly created Mid-American Agroforestry Working Group, which also includes the Leopold Center, National Agroforestry Center and many other groups and individuals.

RESEARCH

Keith Goyne and **Irene Unger** have developed collaborations with three USDA-ARS units (Columbia, Mo.; Maricopa, Ariz.; and Pullman, Wash.) to investigate veterinary antibiotic effects on soil microorganisms in agroforestry and grass buffer strips.

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Lin, C.H., K.W. Goyne, R.J. Kremer, R.N. Lerch and H.E. Garrett. 2010. Dissipation of Sulfamethazine and Tetracycline in the Root Zone of Grass and Tree Species. *Journal of Environmental Quality* 39:1269-1278. (The article was selected for a press release because of the novelty of the work.)

The detection of veterinary antibiotics (VAs) in drinking water resources resulting from manure disposal has raised public health concerns. Previous studies have demonstrated the benefits of using vegetated buffer strips (VBS) to reduce agrichemical transport from agroecosystems. However, VA fate and subsequent effects of VAs on microbial activities in the root zone of VBS have not been well documented. A study was conducted to investigate dissipation of two commonly administered VAs, sulfamethazine (SMZ) and tetracycline (TC), and the relationship between VA dissipation and soil enzyme activities in the root zone of selected plant species. Among the plant species studied, hybrid poplar showed enhanced capability for promoting SMZ dissipation. The

half-lives of SMZ in soil planted to the poplar tree were significantly reduced by the enhanced enzymatic activity. Comparison of soil enzymatic activities between the antibiotic treatments revealed that fluorescein diacetate hydrolytic and glucosaminidase enzyme activities were significantly lower in TC treated soils than in SMZ treated soils. The glucosidase activities were similar between the two VA treatments. Enhanced SMZ dissipation in soil planted to hybrid poplar suggests that incorporation of this plant species in VBS may mitigate deleterious effects of SMZ in the environment.

KUDOS

Rob Myers, a regular collaborator with The Center for Agroforestry over the last decade during his time as director of the Jefferson Institute, has transitioned to a new administrative position. With the start of the new year he is now Regional Coordinator for the USDA Sustainable Agriculture Research and Education (SARE) program, working to coordinate extension and training opportunities through the North Central SARE Professional Development Program. Myers will be working with universities, NGOs, agency staff and farmers throughout the 12-state north central region, and indicates he will remain an active supporter of agroforestry research, education and outreach. His regional position is being hosted through the University of Missouri, and he is now housed in the Ag Engineering Building. He can be reached at myersrob@missouri.edu

OUTREACH

Johann Bruhn spoke on "Truffle Fungi: A Three-Way Mutualism" Nov. 30, 2010, at Uppsala University, Sweden. Bruhn traveled to Sweden to meet with truffle research collaborators.

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Mike Gold was the guest on a radio interview and call-in show Nov. 3, 2010, where he fielded an array of questions about chestnuts (production, marketing, etc.). Bill Peterson, KWIX/KRES/KIRK, hosted the show.

COMING SOON...

Feb. 12 Putting Small Acres to Work
John Wood Community College, Quincy, Ill.
8:30 a.m.-1 p.m.
Topics to select from include: Hoophouses; Brambles; Integrated Pest Management; Goats; Canning Basics; and Nut Trees (*Ken Hunt will lead this session*). Three sessions per hour are offered. A general session will discuss "Rules and Regulations for Direct Marketing." Cost for the program is \$30 per person (\$40 for couples) which includes lunch and proceedings. Students can attend for \$10. Register online at www.extension.uiuc.edu/adams or call 217-223-8380.



Shibu Jose kicks off the Center's 12th Annual Research Review, in photo at left. The review, held Jan. 13 on the MU campus, serves to create synergy and spawn new ideas among Center scientists. Nearly 90 people attended the review. The first-ever meeting of The Center's advisory board followed, with 27 members in attendance.



The Center for Agroforestry at the University of Missouri

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A Global Center for Agroforestry, Entrepreneurship and the Environment