

ACTION IN AGROFORESTRY

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

September 2010

Michael Gold and Michelle Hall, editors

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UMCA Now On Facebook!

So... You get our newsletter, but do you really “like” us?! Now you can – officially! The Center for Agroforestry at the University of Missouri is now on Facebook. This page allows you to connect with us and keep up-to-date on news another way by “liking” us through your profile.

Here’s how it works: Log in to your profile on Facebook. Search for “The Center for Agroforestry.” Click the “like” button at the top of our profile. When we post a link or



other bit of news to our wall, it will show up on your “Newsfeed,” where updates from all of your friends can be found.

Don’t have a Facebook profile? They are easy to create and a great way to keep up with friends, family and your favorite interests! Just go to www.facebook.com to get started.

UMCA WELCOMES...

This fall The Center for Agroforestry is welcoming many new faces. Say “hi” to:

*Chris Bobrick, Ph.D. student, Forestry, studying “Spatial modeling of biomass availability.” Advisers are Hong He and Shibu Jose.

*Brandon Casady, Ph.D., Life Sciences/Forestry, studying redcedar phytochemicals. Adviser is Chung-Ho Lin.

*Marissa “Jo” Daniels, M.S., Forestry, studying “Land-owner willingness to supply biomass and impacts of public subsidies.” Adviser is Francisco Aguilar.

*Cammy Drost, M.S., Soil, Environmental and Atmospheric Sciences, studying “Role of root exudate compounds for herbicide degradation.” Adviser is Chung-Ho Lin.

*Jie Gao, M.S., Parks, Recreation and Tourism, studying “Assessing agroforestry attributes that enhance the recreational appeal of farmland.” Adviser is Carla Barbieri.

*Shannon Heinze, M.S., Plant Sciences, studying “Propagation of nut trees and woody species.” Adviser is Michele Warmund.

*Dandan Huang, M.S., Forestry, studying “Quantifying aquatic and terrestrial sediment loading in a dynamic urbanizing watershed of the central U.S.” Adviser is Jason Hubbard.

*Michael J. Maw, M.S., Plant Sciences, studying “A comparative analyses among annual and perennial bioenergy production systems.” Advisers are Felix Fritschi and Randy Raper (ARS).

*Phillip Mohebalian, M.S., Forestry, studying elderberry marketing and consumer research. Adviser is Francisco Aguilar.

*Jordan Prindle joins UMCA as a research specialist at the Horticulture and Agroforestry Research Center, New Franklin.

SPECIALTY CROPS FIELD DAY AND FESTIVAL SEPT. 24-25

The Center for Agroforestry is co-sponsoring a new field day and festival in western Missouri! The Specialty Crops Field Day and Santa Fe Trail Food and Wine Festival will be Sept. 24-25 at Fahrmeier Farms near Lexington, Mo.

Friday, Sept. 24, is the Field Day, 8:30 a.m. to 2 p.m. Prospective growers are encouraged to attend to learn about agroforestry crops; establishing a vineyard; fruit crops; and market farming. Lunch will be provided; registration is free. Register at: <http://iccve.missouri.edu/events/specialty-crops-register.php>

Friday a VIP Wine Dinner will begin at 6 p.m. Tickets are now available for purchase online at: <http://www.brownpapertickets.com/event/129778>

The Festival will be held 11 a.m. to 5:30 p.m. Saturday, Sept. 25. Participants can sample Missouri wines, see local chefs in action, and learn more about wine and local cuisine. UMCA will be roasting fresh, Missouri-grown chestnuts at the event.

Area specialty crop vendors can reserve booth space by going to <http://iccve.missouri.edu/events/vendor-brochure.pdf>

For more information about the events, go to <http://iccve.missouri.edu/events/>

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KUDOS

Michele Warmund, Mark Coggeshall and **Terrell Stamps** received the American Pomological Society's Shepard Award for the best paper written in The Journal of the American Pomological Society in 2009:

Warmund, M.R., M.V. Coggeshall, and W.T. Stamps. 2009. Rest Completion of Eastern Black Walnut. J. Amer. Pomol. Soc. 63(2):42-50.

OUTREACH

A group of Chinese scientists visited both the MU Southwest Center (July 10) and the MU Horticulture and Agroforestry Research Center (Aug. 2). Tour leaders, including **Andy Thomas** (SW Center), **Gene Garrett** and **Chung-Ho Lin** (HARC), introduced the visitors to research by The Center for Agroforestry. The scientists are from the Vegetable Research Institute of the Shandong Academy of Agricultural Sciences in Jinan.

RESEARCH

Unger, Irene M., Rose-Marie Muzika, and Peter P. Motavalli. 2010. The effect of flooding and residue incorporation on soil chemistry, germination and seedling growth. *Environmental and Experimental Botany* 69:113-120.

Anaerobic soil conditions created during flood events may alter soil chemistry. Increased concentrations of phenolic compounds and decreased soil inorganic nitrogen may occur, with subsequent negative effects on seed germination and seedling growth. We investigated these relationships under greenhouse conditions using simulated floods with stagnant, flowing or intermittent flood waters. Results suggest that flooding may affect

subsequent regrowth of floodplain vegetation due to changes in soil chemical properties. However, further study is needed to determine if flooding affects soil polyphenolics and inorganic nitrogen under actual field conditions and to identify the types of polyphenolics formed and their possible effects on seed germination and root growth.

IMPACT

Udawatta, R.P., H.E. Garrett, and R.L. Kallenbach. 2010. Agroforestry and Grass Buffers Improve Water Quality. *Tree Farmer* July/August pp. 20-21.

Researchers investigated the effects of agroforestry and grass buffers on removal of nonpoint source pollution using six mini watersheds instrumented with H flumes, water samplers, and flow measuring devices with and without buffers at HARC. The study shows that buffers filter significant quantities of runoff, sediment, and nutrients coming from grazed pasture before the water enters water bodies as compared to watersheds with no buffers. Results of the study indicate that buffers, as a protective measure, can help reduce soil erosion and nutrient losses from pastured land and thereby protect water quality.

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The Center for Agroforestry recently signed a formal Memorandum of Understanding with National Sun Yat-sen University, Kaohsiung, Taiwan. **Chung-Ho Lin** has worked with the Taiwanese university.

COMING SOON...

- Sept. 24-25** Specialty Crops Field Day & Santa Fe Trail Food and Wine Festival
Fahrmeier Farm, Lexington (details, pg. 1)
- Oct. 16** Missouri Chestnut Roast, 10 a.m.-4 p.m.
HARC, New Franklin
- Oct. 21** UMCA Faculty/Staff Meeting, 2 p.m.
HARC, New Franklin
- Oct. 30** Forrest Keeling Chestnut Roast, 10 a.m.-4 p.m.
Elsberry, Mo.



Farmers and landowners from Howard County toured the MU Horticultural and Agroforestry Research Center the evening of Aug. 5. Ray Glendenning, HARC superintendent, said tour stops and talks included chestnut, walnut, and pecan production; shade- and flood-tolerance testing; pinestraw production; buffer strips and water quality; silvopasture and alley-cropping systems; odor abatement and wind-breaks; mushrooms; apples, grapes and peaches; biomass for biofuel; and, of course, the Hickman House (photo above).



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 The Center for Agroforestry
University of Missouri

A Global Center for Agroforestry, Entrepreneurship and the Environment