

action in AGROFORESTRY

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Benin's Dr. Brice Sinsin gives presentation at MU

On August 14, Dr. Brice Sinsin of the University of Abomey-Calavi visited MU to give a presentation on biodiversity conservation in Benin, a tropical country located on the west coast of Africa. In his presentation, Dr. Sinsin discussed the benefits and challenges of practicing agroforestry and conservation in Benin's forests.

Dr. Sinsin pointed out that forest conservation has a number of distinct benefits in Benin in addition the preservation of endangered animal species. For example, forest products including fruits, nuts and medicinal plants provide sources of income and medicine for local people. Furthermore, healthy forests attract wildlife observation tourism, an industry that could create jobs for thousands of Beninese.

However, during "times of crisis," government funding for conservation is often one of the first budgets to be slashed. Dr. Sinsin cited this as a major obstacle in the long-term conservation of forests in Benin.

Dr. Sinsin is the chancellor of the University of Abomey-Calavi, the largest campus of the National University of Benin. Over the course of his career, he has advised 50 Ph.D. students and published over 300 academic papers. He was a Fulbright scholar and currently sits on the editorial board of *Agroforestry Systems*.

Also visiting MU on August 14 was Dr. Roland Holou, who received his bachelor's and master's degrees in Benin under the counsel of Dr. Sinsin. In 2010, Holou earned his doctoral degree in plant science from the University of Missouri. He currently works for Monsanto as a research scientist in St. Louis.

above: UMCA faculty, staff and graduate students with Dr. Sinsin after his presentation on biodiversity conservation
below: Dr. Holou (left) and Dr. Sinsin at the MU School of Natural Resources



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Kudos

- Dr. Larry Godsey gave an invited presentation on windbreak economics at the Great Plains Windbreak Renovation and Innovation Conference in July. The conference brought together technical expertise and experience in the design and management of windbreaks from across the U.S. and Canada. Approximately 85 landowners and natural resource professionals attended the conference.
- Bruce Barrett and Terrell Stamps received a grant of \$5,890 from the Northern Nut Growers Association for their project “Chestnut weevil monitoring: Developing a comprehensive strategy for pest management.”

Research

Anomaa Senaviratne, Ranjith Udawatta, Kelly Nelson, Kent Shannon and Shibu Jose have published a manuscript in *Agronomy Journal* entitled “Temporal and spatial influence of perennial upland buffers on corn and soybean yields.” The article is available online to subscribers at agronomy.org and will be published in print in September.

Abstract: Contour perennial buffers within cropland reduce pollutants from watersheds, but may interfere and affect crop yields at the crop-buffer interface. The objective of this study was to evaluate the temporal and spatial effects of agroforestry (AGF) and contour grass (CGS) buffers on no-till corn (*Zea mays* L.) and soybean [*Glycine max* (L.) Merr.] yields in the claypan region of Missouri. The CGS buffers (4.5-m width) contained redtop (*Agrostis gigantea* Roth), brome grass (*Bromus* spp.), and birdsfoot trefoil (*Lotus corniculatus* L.), established at 35 m spacings. The AGF buffers contain a single row of pin oak (*Quercus palustris* Muenchh.), swamp white oak (*Q. bicolor* Willd.), and bur oak (*Q. macrocarpa* Michx.) trees planted at 3-m spacings in the middle of grass strips. Mean yields of corn in 2004, 2006, and 2008 and soybean in 2005, 2007, and 2009 at distances 0 to 5 m, 5 to 10 m, 10 to 15 m, and 15 to 20 m from AGF and CGS buffers were determined using geo-referenced yield maps and ArcGIS software. Corn yield reductions at 0 to 5 m from buffers, ranged from 22 to 49% in AGF and 15 to 32% in CGS watersheds, compared to the yield at 15 to 20 m during 2004 and 2006. This reduction may have been enhanced from soil moisture stress, late planting, and different hybrids between study years. Soybean yields were not affected by buffers. Reduction of corn yields could be potentially minimized with early planting, drought-tolerant varieties and reduction of buffers root competition with pruning or barriers.

Ian Keeseey, Bruce Barrett, Chung-Ho Lin and Robert Lerch published the article “Electroantennographic responses of the small chestnut weevil *Curculio sayi* (Coleoptera: Curculionidae) to volatile organic compounds identified from chestnut reproductive plant tissue” in *Environmental Entomology*.

Abstract: The primary insect pest of the developing chestnut industry in the central United States is the small (or lesser) chestnut weevil, *Curculio sayi*. Recent research has shown this insect is attracted to and feeds upon the reproductive tissues of the chestnut tree, including the flowers, burs and nuts. This study identifies the major components of the volatile profile from several important chestnut plant tissues. The identification of the major volatiles emanating from chestnut tissue, as well as the associated insect response, are both critical to the successful utilization of these host-plant volatiles as attractants in the development of a semio-chemical-based monitoring trap for *C. sayi* adults.

Goodbye, Steve!

Effective September 30, 2012, Steve Jarvis will be resigning from his position as the executive director of the Missouri Forest Products Association. In October, he will become the executive director of the Frederick County Association of Realtors in his hometown of Frederick, Maryland. Due to his relocation, he will also be resigning from his position as vice chairman of the UMCA Advisory Board.

The Center for Agroforestry would like to thank Steve for his service and leadership in the MFPA over the past three years. We are sorry to see him leave but wish him the best of luck in all his future endeavors.



Steve Jarvis (center) with MU forestry students, MU forestry faculty and Lincoln University faculty on a trip to Costa Rica earlier this year. The trip was funded through an ongoing USDA NIFA International Science and Education Grant entitled “Internationalization of Forestry Education, Research and Extension: U.S.-Costa Rica Cooperation.”

Coming soon:

- Aug. 30- Sept. 2: North American Chestnut Farm Workshop & CGA Annual Meeting
Jackson, Mich.
[Click here for more information.](#)
- Oct. 11 Burgundy Truffle and Shiitake Mushroom Cuisine Class
Columbia Area Career Center
[Click here to enroll!](#)

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