

UMCA To Develop Online Graduate Program in Agroforestry

A groforestry has steadily been gaining attention among landowners and natural resource professionals for its environmental and economic benefits. With this increase in recognition, the need for trained professionals in agroforestry also has been expanding.

That's where the MU Center for Agroforestry comes in. The Center has recently received funding from the University of Missouri System to develop eight courses, creating an Interdisciplinary Online Graduate Program in Agroforestry.

The program will consist of a graduate certificate (12 credits) and master's degree (30 credits). An existing agroforestry course will be converted to an online course. Three additional courses in the biophysical and socio-economic dimensions of agroforestry will be developed, as will four elective courses in soils, watershed management, natural resource policy and biometrics.

"Professionals across the U.S. and overseas are looking for courses, graduate degree or certificate programs in agroforestry," said Shibu Jose, UMCA director. "Nearly 1,500 Peace Corps volunteers, for example, work abroad every year on agroforestry-related projects. This program could provide them with an opportunity to pursue a degree or certificate in agroforestry while working abroad. We are not aware of any similar program in agroforestry elsewhere in the country."

The nine instructors involved in this multi-disciplinary team effort will develop and offer the eight online courses within the next two years.

UMCA and MU faculty involved with the project, in addition to Jose, include Francisco Aguilar, Larry Godsey, Michael Gold, Jason Hubbart, David Larsen, Randy Miles, Peter Motavalli and Ranjith Udawatta.

Admission to the new graduate certificate and degree program will begin in fall 2010. An enrollment of 15 new graduate students in the master's degree and 10 students in the graduate certificate is expected in the first year. In addition to the students admitted to the specific agroforestry certificate or degree program, students from other disciplines are also encouraged to enroll in the online courses.

"We hope to increase enrollment of graduate students in courses related to agroforestry," Jose said. "The ultimate outcome of this project will be 'society-ready graduates' who are capable of making positive changes in the agriculture, natural resources and environmental sectors in the U.S. and elsewhere in the world."

GLENDENING TAKES REINS AT HARC

Ray Glendening has been named superintendent of the MU Horticulture and Agroforestry Research Center, New Franklin. HARC is the main research farm for the MU Center for Agroforestry and encompasses 660 acres.



Glendening previously served as farm manager and replaces Gene Garrett, who retired as superintendent at the end of March 2010. Glendening spent 13 years as HARC manager; Garrett had served as superintendent since 2002

Glendening received a B.S. degree in agricultural economics from the University of Missouri. He spent 15 years as a farm supervisor at MU's Sinclair Comparative Medicine Research Farm. He then joined Research Support Services (now Field Operations) until receiving the farm manager position at HARC.

COGGESHALL NAMED TO TREE IMPROVEMENT POSITION

Mark Coggeshall has been named research assistant professor of forestry - tree improvement with UMCA. Coggeshall had served as tree improvement specialist/research analyst since 2000.



He will continue the long-term tree improvement research effort established by the Missouri Department of Conservation and applied breeding programs for black walnut, Chinese chestnut and pecan within the Center.

Coggeshall received a B.S. from the University of Massachusetts, forest management, and M.S. from Mississippi State University, forest genetics. He completed his Ph.D. in horticulture at MU. Coggeshall previously served as Plant Propagator and Nursery Manager, Bernheim Arboretum and Research Forest, Clermont, Ky., and Tree Improvement Specialist, Indiana Department of Natural Resources.

ACTION IN AGROFORESTRY

OUTREACH

Gene Garrett was quoted in an extensive article on agroforestry in the St. Louis Post-Dispatch. "Trees, farms do mix," by Georgina Gustin, ran June 3 and featured information from a recent agroforestry gathering in Washington, D.C.

The article touched on the history of UMCA and agroforestry policy in this country, the environmental benefits of integrating trees and other farming practices, and examples of working agroforestry farms.

In addition to Garrett, **Shibu Jose and Mike Gold** attended the conference, held May 25-26.

To see the article online, go to http://www.stltoday. com/stltoday/news/stories.nsf/stlouiscitycounty/story/ 4124A1068B6429008625773700008112?OpenDocument

KUDOS

Michele Warmund has received a USDA Crop Germplasm Grant for "Entering passport and yield descriptor data of castanea accessions at the University of Missouri Horticulture and Agroforestry Research Center into GRIN" for \$8,874.

RESEARCH

Charlebois, D., P.L. Byers, C.E. Finn, and A.L. Thomas. 2010. Elderberry: Botany, Horticulture, Potential. Horticultural Reviews 37:213-280. Wiley-Blackwell.

The elderberry or elder (Sambucus ssp.), in production or growing wild in the northern hemisphere, may have the widest range of applications of all small fruits. Members of the genus Sambucus have a multitude of uses, including riverbank stabilization and windbreaks; wildlife food and refuge; ornamental, crafts, and games; versatile human food source; and multipurpose medicinal. Although the scientific documentation related

COMING SOON...

- July 7 UMCA Faculty/Staff Bi-monthly Meeting 2:30-4 p.m., 210 ABNR
- August 17 UMCA Chestnut Workshop Series #3 Orchard Maintenance, Weed Control, Insect Scouting, Pest Management, Disease Control Horticulture and Agroforestry Research Center, New Franklin Contact Julie Rhoads, 573-882-3234 or rhoadsj@missouri.edu, for more information

to elderberries has increased over the last two decades, few reviews have been published. This chapter reviews European and American elderberries.

ІМРАСТ

Students supported by UMCA research projects have been very successful:

* Madelyn M. Myers (bioremediation) was awarded a CAFNR Research Internship Award, 2010-2011, (Mentor: Chung-Ho Lin) on the research "Introduction of atrazine-degrading *Pseudomonas sp.* strain ADP to enhance rhizodegradation of atrazine."

* Annie Olga Smith (red cedar phytochemical) was offered a position with the MU department of medical pharmacology and physiology.

* Sandhya Thondapu (bioremediation and red cedar phytochemical) was admitted to MU School of Medicine.

* Han Yang (explosive bioremediation) was admitted to the School of Public Health at The University of Texas Health Science Center.

* Jana M. Binkley's (redcedar phytochemical) "Creation of a better anthrax vaccine: Expression of protective antigen on the outside of *Bacillus* spores" (with Dr. George Stewart) was awarded Excellence in Undergraduate Research in Translational Technologies, Life Sciences Week 2009. She was selected to represent the University of Missouri-Columbia at Undergraduate Research Day at the Capitol.



On May 4, Center for Agroforestry staff hosted the second workshop in the 2010 Chestnut Workshop Series at the MU Horticulture and Agroforestry Research Center. Twelve landowners watched workshop instructors Ken Hunt, center, and Mark Coggeshall demonstrate grafting techniques. The attendees will learn about chestnut insects and diseases at the next workshop Aug. 17.



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