

# action in AGROFORESTRY

## UMCA researchers receive NRCS Conservation Innovation Grants

Several University of Missouri researchers recently received grants from the NRCS CIG program. NRCS Conservation Innovation Grants (CIG) is a voluntary program intended to stimulate the development and adoption of innovative conservation approaches and technologies while leveraging federal investment in environmental enhancement and protection, in conjunction with agricultural production. CIG enables NRCS to work with other public and private entities to accelerate technology transfer and adoption of promising technologies and approaches to address some of the nation's most pressing natural resource concerns. CIG benefits agricultural producers by providing more options for environmental enhancement in compliance with federal, state and local regulations.

See the summaries below to learn more about the researchers that received Conservation Innovation Grants!

### ***Validate, improve and regionalize phosphorus indices to reduce phosphorus (P) loss across the Heartland Region***

PI: John Lory (MU - lead institution)

Co-PIs: Ranjith Udawatta, Claire Baffaut, et al.

This four-state project (Missouri, Nebraska, Iowa and Kansas) will advance P management in the U.S. by developing and demonstrating procedures that ensure P indices are appropriately tested in accordance with the 2012 NRCS 590 Standard by meeting the following objectives:

- Identifying the most effective strategies for using the Agricultural Policy Environmental Extender (APEX), an existing fate-and-transport model, to evaluate P indices using data from existing watershed and large-plot studies
- Evaluating and improving current P index formulations in Iowa, Kansas, Missouri and Nebraska; evaluate and compare potential P index formulations for use as a regional P index in the humid regions of Iowa, Kansas, Missouri and Nebraska
- Engaging farmers, technical service providers, stakeholder groups, state and regional regulators and state NRCS staff to facilitate acceptance of recommendations in each state, facilitating more consistency across state borders, and demonstrating the utility of validated, calibrated P-indices for reducing P loss and protecting water quality

Total project budget is \$1,200,000.

### ***Multipurpose cover crop and conservation practices for a sustainable agricultural system to improve soil health, environmental quality and farm productivity***

PI: Ranjith Udawatta

Co-PIs: Clark Gantzer, Shibu Jose, Robert Kremer, Tim Reinbott, Larry Godsey and Mihaela Cernusca

This project will demonstrate the environmental benefits of adopting a production system focused on soil health and conservation practices. The project aims to measure in detail reductions in soil erosion, nitrogen, phosphorus, and herbicide losses and some measure of pesticide losses to surface water. It also aims to enhance wildlife richness and diversity by demonstrating increased richness and diversity of wildlife as a result of field edge buffers and cover crops. Further, it will demonstrate the economic benefits of adopting a production system of soil health and conservation practices with the goals of increased productivity, decreased input costs and increased farm profitability. Finally, the project will develop and implement a user friendly tool to recommend best management for cover crop selection, nitrogen application and economic return.

CIG matching funds came from: MDNR, Associated Electric Cooperative, Cover Crop Solutions LLC, MO-NRCS, Garst and Pioneer seeds, MDC, Chariton County SWCD, and private landowners. Special thanks to Mike Snellen.

Total project budget is \$1,102,000.





## Outreach

The Center for Agroforestry is pleased to announce that it will be hosting an elderberry winemaking workshop in Columbia on Friday, October 26. The workshop will be held in the Barrel Room of Bleu Restaurant & Wine Bar (811 E. Walnut St.) from 10 a.m. to 3 p.m. Dr. John Brewer, president of Wyldeewood Cellars, will be the course instructor.

Dr. Brewer's excellence as a winemaker has been widely recognized, and he serves as a judge at international wine competitions. Wyldeewood Cellars produces more than 40 types of wine and has won over 450 international awards for its wines, including elderberry varieties. Wyldeewood Cellars' Spiced Elderberry Wine was featured and served at the 2002 Winter Olympics in Utah, where it was named the Best Non-Grape Wine in North and Latin America and won many Gold Medals. In addition, Wyldeewood Cellars sells value-added elderberry products coast to coast. For more information, see [wyldeewoodcellars.com](http://wyldeewoodcellars.com).

The cost of the workshop is \$30, which includes a lunch catered by Bleu and an elderberry wine tasting. Interested parties can register at [brownpapertickets.com/event/276034](http://brownpapertickets.com/event/276034).

Visit [centerforagroforestry.com/events](http://centerforagroforestry.com/events) or contact Michael Gold at [goldm@missouri.edu](mailto:goldm@missouri.edu) to learn more about this event!

## M.S. and Ph.D. assistantships available immediately

Four assistantships, two M.S. and two Ph.D., are currently available at the University of Missouri to research the effects of cover crops on soil quality, water quality, biomass, interactions and productivity. Assistantships will involve a combination of field work (i.e., instrumentation, sample collection), laboratory analysis, and pertinent literature review. Assistantships start in January 2013 and include medical insurance and tuition waiver.

Essential qualifications include a bachelor's degree for M.S. assistantships and a master's degree for Ph.D. assistantships. In addition, preferred areas of expertise are in soil science, agronomy, watershed management, environmental science, natural resources management, agroforestry, agronomy, or closely related fields.

For departmental and graduate school requirements, please visit [snr.missouri.edu/seas/academics/graduate-admissions.php](http://snr.missouri.edu/seas/academics/graduate-admissions.php) and [gradschool.missouri.edu](http://gradschool.missouri.edu). To submit an application, visit [app.applyyourself.com/?id=umc-grad](http://app.applyyourself.com/?id=umc-grad).

Please contact Dr. Ranjith Udawatta (phone: 573-882-4347, email: [udawattar@missouri.edu](mailto:udawattar@missouri.edu)) for additional information.

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## Coming soon:

- Oct. 11 Burgundy Truffle and Shiitake Mushroom Cuisine Class  
Columbia Area Career Center  
[Click here to enroll](#)
- Oct. 26 Elderberry Winemaking Workshop  
Bleu Restaurant & Wine Bar  
[Click here to register online](#)

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